

MINUTES
BOARD OF EDUCATION

December 9, 2024

7:30 PM

President Dave Zimmerman called the meeting to order at 7:30 PM with the following members in attendance:

I. Call Meeting to Order

I.A. Roll Call

I.B. Notice of Nebraska Open Meetings Act Posted

II. Approval of Minutes from the November 11, 2024, Regular Board Meeting

Motion to approve minutes from the November 11, 2024, Regular Board Meeting. This motion, made by Debra Schlake and seconded by Jeff Argo, passed.

Betsy Frerichs: Absent, Jeff Argo: yes, Dana Dorn: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 5, no: 0, Absent: 1

III. Communications, Audiences, and Recognitions

III.A. Public comments will not be received after this period of time. Public comment period is limited to 5 minutes per person and a total of 30 minutes overall.

IV. Financial Statement: Items for Discussion, Consideration, and/or Action

IV.A. Approval of Bills

IV.A.1. General Fund, Special Building Fund, Depreciation Fund, and Qualified Capital Purpose Undertaking Fund Claims

Motion to approve the general fund, special building fund, depreciation fund, and qualified capitol purpose undertaking fund claims. This motion, made by Debra Schlake and seconded by Jeff Argo, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

IV.A.2. Lunch & Activity Claims

V. Support Service

V.A. Facility Update

V.B. Personnel Items

V.C. Technology Update

VI. Administrative and Committee Reports

VI.A. Student Board Member Report

VI.B. Elementary Principal's Report

VI.C. Secondary Principal's Report

VI.D. Superintendent's Report

VII. Items for Discussion, Consideration, and/or Action

VII.A. Nebraska's College & Career Ready Standards for Science

Motion to approve the Nebraska's College & Career Ready Standards for Science. This motion, made by Dana Dorn and seconded by Betsy Frerichs, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.B. Approve the 2025-2026 Negotiated Agreement with Southern Education Association

Motion to approve the 2025-2026 negotiated agreement with Southern Education Association. This motion, made by Jared McKeever and seconded by Debra Schlake, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.C. Preschool Calendar 2025-2026

Motion to approve the preschool calendar for the 2025-2026 school year. This motion, made by Debra Schlake and seconded by Betsy Frerichs, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.D. District Calendar 2025-2026

Motion to approve the district calendar for the 2025-2026 school year. This motion, made by Dana Dorn and seconded by Jeff Argo, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.E. Consider the Approval of an Overnight Trip for the State Cheer Competition

Motion to approve the overnight trip for the State Cheer competition. This motion, made by Jared McKeever and seconded by Debra Schlake, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.F. KSB School Law New Superintendent Evaluation Instrument Approval & the Updated Policy 4057: Superintendent Evaluation

Motion to approve the KSB School Law new superintendent evaluation instrument & the Updated Policy 4057: Superintendent Evaluation. This motion, made by Jeff Argo and seconded by Dana Dorn, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.G. Policy Update - Policy 2008: Meetings & Policy 3004.1: Fiscal Management for Purchasing and Procurement Using Federal Funds

Motion to approve Policy 2008: Meetings & Policy 3004.1: Fiscal Management for Purchasing and Procurement Using Federal Funds. This motion, made by Debra Schlake and seconded by Dana Dorn, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.H. Superintendent's Contract

VII.H.1. Superintendent Contract Extension

Motion to approve the superintendent's contract extension. This motion, made by Dana Dorn and seconded by Debra Schlake, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

VII.H.2. Superintendent Salary and Benefits

Motion to approve a base salary increase of 4% for the 2025-2026 school year. This motion, made by Jared McKeever and seconded by Jeff Argo, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake:

yes, David Zimmerman: yes
yes: 6, no: 0

VII.I. Option Enrollment Applications

VIII. Adjournment

Motion to adjourn the meeting at 8:46 p.m. This motion, made by Dana Dorn and seconded by Jeff Argo, passed.

Jeff Argo: yes, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, Debra Schlake: yes, David Zimmerman: yes
yes: 6, no: 0

BY

President of the Board of Education

Of this School District

ATTEST

Secretary of the Board of Education

of this School District

NEBRASKA OPEN MEETINGS ACT

84-1407. Act, how cited. Sections 84-1407 to 84-1414 shall be known and may be cited as the Open Meetings Act.

84-1408. Declaration of intent; meetings open to public. It is hereby declared to be the policy of this state that the formation of public policy is public business and may not be conducted in secret.

Every meeting of a public body shall be open to the public in order that citizens may exercise their democratic privilege of attending and speaking at meetings of public bodies, except as otherwise provided by the Constitution of Nebraska, federal statutes, and the Open Meetings Act.

84-1409. Terms, defined. For purposes of the Open Meetings Act, unless the context otherwise requires:

(1)(a) Public body means (i) governing bodies of all political subdivisions of the State of Nebraska, (ii) governing bodies of all agencies, created by the Constitution of Nebraska, statute, or otherwise pursuant to law, of the executive department of the State of Nebraska, (iii) all independent boards, commissions, bureaus, committees, councils, subunits, or any other bodies created by the Constitution of Nebraska, statute, or otherwise pursuant to law, (iv) all study or advisory committees of the executive department of the State of Nebraska whether having continuing existence or appointed as special committees with limited existence, (v) advisory committees of the bodies referred to in subdivisions (i), (ii), and (iii) of this subdivision, and (vi) instrumentalities exercising essentially public functions; and

(b) Public body does not include (i) subcommittees of such bodies unless a quorum of the public body attends a subcommittee meeting or unless such subcommittees are holding hearings, making policy, or taking formal action on behalf of their parent body, except that all meetings of any subcommittee established under section 81-15,175 are subject to the Open Meetings Act, (ii) entities conducting judicial proceedings unless a court or other judicial body is exercising rulemaking authority, deliberating, or deciding upon the issuance of administrative orders, and (iii) the Judicial Resources Commission or subcommittees or subgroups of the commission;

(2) Meeting means all regular, special, or called meetings, formal or informal, of any public body for the purposes of briefing, discussion of public business, formation of tentative policy, or the taking of any action of the public body; and

(3) Virtual conferencing means conducting or participating in a meeting electronically or telephonically with interaction among the participants subject to subsection (2) of section 84-1412.

84-1410. Closed session; when; purpose; reasons listed; procedure; right to challenge; prohibited acts; chance meetings, conventions, or workshops.

(1) Any public body may hold a closed session by the affirmative vote of a majority of its voting members if a closed session is clearly necessary for the protection of the public interest or for the prevention of needless injury to the reputation of an individual and if such individual has not requested a public meeting. The subject matter and the reason necessitating the closed session shall be identified in the motion to close. Closed sessions may be held for, but shall not be limited to, such reasons as:

(a) Strategy sessions with respect to collective bargaining, real estate purchases, pending litigation, or litigation which is imminent as evidenced by communication of a claim or threat of litigation to or by the public body;

(b) Discussion regarding deployment of security personnel or devices;

(c) Investigative proceedings regarding allegations of criminal misconduct;

(d) Evaluation of the job performance of a person when necessary to prevent needless injury to the reputation of a person and if such person has not requested a public meeting;

(e) For the Community Trust created under section 81-1801.02, discussion regarding the amounts to be paid to individuals who have suffered from a tragedy of violence or natural disaster; or

(f) For public hospitals, governing board peer review activities, professional review activities, review and discussion of medical staff investigations or disciplinary actions, and any strategy session concerning transactional negotiations with any referral source that is required by federal law to be conducted at arms length.

Nothing in this section shall permit a closed meeting for discussion of the appointment or election of a new member to any public body.

(2) The vote to hold a closed session shall be taken in open session. The entire motion, the vote of each member on the question of holding a closed session, and the time when the closed session commenced and concluded shall be recorded in the minutes. If the motion to close passes, then the presiding officer immediately prior to the closed session shall restate on the record the limitation of the subject matter of the closed session. The public body holding such a closed session shall restrict its consideration of matters during the closed portions to only those purposes set forth in the motion to close as the reason for the closed session. The meeting shall be reconvened in open session before any formal action may be taken. For purposes of this section, formal action shall mean a collective decision or a collective commitment or promise to make a decision on any question, motion, proposal, resolution, order, or ordinance or formation of a position or policy but shall not include negotiating guidance given by members of the public body to legal counsel or other negotiators in closed sessions authorized under subdivision (1)(a) of this section.

(3) Any member of any public body shall have the right to challenge the continuation of a closed session if the member determines that the session has exceeded the reason stated in the original motion to hold a closed session or if the member contends that the closed session is neither clearly necessary for (a) the protection of the public interest or (b) the prevention of needless injury to the reputation of an individual. Such challenge shall be overruled only by a majority vote of the members of the public body. Such challenge and its disposition shall be recorded in the minutes.

(4) Nothing in this section shall be construed to require that any meeting be closed to the public. No person or public body shall fail to invite a portion of its members to a meeting, and no public body shall designate itself a subcommittee of the whole body for the purpose of circumventing the Open Meetings Act. No closed session, informal meeting, chance meeting, social gathering, email, fax, or other electronic communication shall be used for the purpose of circumventing the requirements of the act.

(5) The act does not apply to chance meetings or to attendance at or travel to conventions or workshops of members of a public body at which there is no meeting of the body then intentionally convened, if there is no vote or other action taken regarding any matter over which the public body has supervision, control, jurisdiction, or advisory power.

84-1411. Meetings of public body; notice; method; contents; when available; right to modify; duties concerning notice; virtual conferencing authorized; requirements; emergency meeting without notice; appearance before public body.

(1) Until January 1, 2025:

(a) Each public body shall give reasonable advance publicized notice of the time and place of each meeting as provided in this subsection. Such notice shall be transmitted to all members of the public body and to the public.

(b)(i) Except as provided in subdivision (1)(b)(ii) of this section, in the case of a public body described in

subdivision (1)(a)(i) of section 84-1409 or such body's advisory committee, such notice shall be published in a newspaper of general circulation within the public body's jurisdiction and, if available, on such newspaper's website.

(ii) In the case of the governing body of a city of the second class or village or such body's advisory committee or the governing body of a rural or suburban fire protection district, such notice shall be published by:

(A) Publication in a newspaper of general circulation within the public body's jurisdiction and, if available, on such newspaper's website; or

(B) Posting written notice in three conspicuous public places in such city, village, or district. Such notice shall be posted in the same three places for each meeting.

(iii) In the case of a public body not described in subdivision (1) (b)(i) or (ii) of this section, such notice shall be given by a method designated by the public body.

(iv) In case of refusal, neglect, or inability of the newspaper to timely publish the notice, the public body shall (A) post such notice on its website, if available, and (B) post such notice in a conspicuous public place in such public body's jurisdiction. The public body shall keep a written record of such posting. The record of such posting shall be evidence that such posting was done as required and shall be sufficient to fulfill the requirement of publication.

(c) In addition to a method of notice required by subdivision (1)(b) (i) or (ii) of this section, such notice may also be provided by any other appropriate method designated by such public body or such advisory committee.

(d) Each public body shall record the methods and dates of such notice in its minutes.

(e) Such notice shall contain an agenda of subjects known at the time of the publicized notice or a statement that the agenda, which shall be kept continually current, shall be readily available for public inspection at the principal office of the public body during normal business hours. Agenda items shall be sufficiently descriptive to give the public reasonable notice of the matters to be considered at the meeting. Except for items of an emergency nature, the agenda shall not be altered later than (i) twenty-four hours before the scheduled commencement of the meeting or (ii) forty-eight hours before the scheduled commencement of a meeting of a city council or village board scheduled outside the corporate limits of the municipality. The public body shall have the right to modify the agenda to include items of an emergency nature only at such public meeting.

(2) Beginning January 1, 2025:

(a) Each public body shall give reasonable advance publicized notice of the time and place of each meeting as provided in this subsection. Such notice shall be transmitted to all members of the public body and to the public.

(b)(i) Except as provided in subdivision (2)(b)(ii) of this section, in the case of a public body described in subdivision (1)(a)(i) of section 84-1409 or such body's advisory committees, such notice shall be given by:

(A)(I) Publication in a newspaper of general circulation within the public body's jurisdiction that is finalized for printing prior to the time and date of the meeting, (II) posting on such newspaper's website, if available, and (III) posting on a statewide website established and maintained as a repository for such notices by a majority of Nebraska newspapers. Such notice shall be placed in the newspaper and on the websites by the newspaper; or

(B)(I) Posting to the newspaper's website, if available, and (II) posting to a statewide website established and maintained as a repository for such notices by a majority of Nebraska newspapers if no edition of a newspaper of general circulation within the public body's jurisdiction is to be finalized for printing prior to the time and date of the meeting. Such notice shall be placed in the newspaper and on the websites by the newspaper.

(ii) In the case of the governing body of a city of the second class or village, any advisory committee of such governing body, or the governing body of a rural or suburban fire protection district, such notice shall be given by:

(A)(I) Publication in a newspaper of general circulation within the public body's jurisdiction that is finalized for printing prior to the time and date of the meeting, (II) posting on such newspaper's website, if available, and (III) posting on a statewide website established and maintained as a repository for such notices by a majority of Nebraska newspapers. Such notice shall be placed in the newspaper and on the websites by the newspaper;

(B)(I) Posting to the newspaper's website, if available, and (II) posting to a statewide website established and maintained as a repository for such notices by a majority of Nebraska newspapers if no edition of a newspaper of general circulation within the public body's jurisdiction is to be finalized for printing prior to the time and date of the meeting. Such notice shall be placed in the newspaper and on the websites by the newspaper; or

(C)(III) Posting written notice in three conspicuous public places in such city, village, or district. Such notice shall be posted by the public body in the same three places for each meeting.

(iii) In the case of a public body not described in subdivision (2) (b)(i) or (ii) of this section, such notice shall be given by a method designated by the public body.

(iv) In case of refusal, neglect, or inability of the newspaper to publish the notice, the public body shall (A) post such notice on its website, if available, (B) submit a post on a statewide website established and maintained as a repository for such notices by a majority of Nebraska newspapers, and (C) post such notice in a conspicuous public place in such public body's jurisdiction. The public body shall keep a written record of such posting. The record of such posting shall be evidence that such posting was done as required and shall be sufficient to fulfill the requirement of publication.

(3)(a) The following entities may hold a meeting by means of virtual conferencing if the requirements of subdivision (3)(b) of this section are met:

(i) A state agency, state board, state commission, state council, or state committee, or an advisory committee of any such state entity;

(ii) An organization, including the governing body, created under the Interlocal Cooperation Act, the Joint Public Agency Act, or the Municipal Cooperative Financing Act;

(iii) The governing body of a public power district having a chartered territory of more than one county in this state;

(iv) The governing body of a public power and irrigation district having a chartered territory of more than one county in this state;

(v) An educational service unit;

(vi) The Educational Service Unit Coordinating Council;

(vii) An organization, including the governing body, of a risk management pool or its advisory committees organized in accordance with the Intergovernmental Risk Management Act;

(viii) A community college board of governors;

(ix) The Nebraska Brand Committee;

(x) A local public health department;

(xi) A metropolitan utilities district;

(xii) A regional metropolitan transit authority; and

(xiii) A natural resources district.

(b) The requirements for holding a meeting by means of virtual conferencing are as follows:

(i) Reasonable advance publicized notice is given as provided in subsections (1) and (2) of this section, including providing access to a dial-in number or link to the virtual conference;

(ii) In addition to the public's right to participate by virtual conferencing, reasonable arrangements are made to accommodate the public's right to attend at a physical site and participate as provided in section 84-1412, including reasonable seating, in at least one designated site in a building open to the public and identified in the notice, with: At least one member of the entity holding such meeting, or his or her designee, present at each site; a recording of the hearing by audio or visual recording devices; and a reasonable opportunity for input, such as public comment or questions, is provided to at least the same extent as would be provided if virtual conferencing was not used;

(iii) At least one copy of all documents being considered at the meeting is available at any physical site open to the public where individuals may attend the virtual conference. The public body shall also provide links to an electronic copy of the agenda, all documents being considered at the meeting, and the current version of the Open Meetings Act; and

(iv) Except as otherwise provided in this subdivision or subsection (4) of section 79-2204, no more than one-half of the meetings of the state entities, advisory committees, boards, councils, organizations, or governing bodies are held by virtual conferencing in a calendar year. In the case of (a) an organization created under the Interlocal Cooperation Act that sells electricity or natural gas, (b) an organization created under the Municipal Cooperative Financing Act, (C) a governing body of a risk management pool and any advisory committee of such governing body, or (D) any advisory committee of any state entity created in response to the Opioid Prevention and Treatment Act, such organization, governing body, or committee may hold more than one-half of its meetings by virtual conferencing if such organization holds at least one meeting each calendar year that is not by virtual conferencing.

(4) Virtual conferencing, emails, faxes, or other electronic communication shall not be used to circumvent any of the public government purposes established in the Open Meetings Act.

(5) The secretary or other designee of each public body shall maintain a list of the news media requesting notification of meetings and shall make reasonable efforts to provide advance notification to them of the time and place of each meeting and the subjects to be discussed at that meeting.

(6) When it is necessary to hold an emergency meeting without reasonable advance public notice, the nature of the emergency shall be stated in the minutes and any formal action taken in such meeting shall pertain only to the emergency. Such emergency meetings may be held by virtual conferencing. The provisions of subsection (5) of this section shall be complied with in conducting emergency meetings. Complete minutes of such emergency meetings specifying the nature of the emergency and any formal action taken at the meeting shall be made available to the public by no later than the end of the next regular business day.

(7) A public body may allow a member of the public or any other witness to appear before the public body by means of virtual conferencing.

(8)(a) Notwithstanding subsections (3) and (6) of this section, if an emergency is declared by the Governor pursuant to the Emergency Management Act as defined in section 81-829.39, a public body the territorial jurisdiction of which is included in the emergency declaration, in whole or in part, may hold a meeting by virtual conferencing during such emergency if the public body gives reasonable advance publicized notice as described in subsections (1) and (2) of this section. The notice shall include information regarding access for the public and news media. In addition to any formal action taken pertaining to the emergency, the public body may hold such meeting for the purpose of briefing, discussion of public business, formation of tentative policy, or the taking of any action by the public body.

(b) The public body shall provide access by providing a dial-in number or a link to the virtual conference. The public body shall also provide links to an electronic copy of the agenda, all documents being considered at the meeting, and the current version of the Open Meetings Act. Reasonable arrangements shall be made to accommodate the public's right to hear and speak at the meeting and record the meeting. Subsection (5) of this section shall be complied with in conducting such meetings.

(c) The nature of the emergency shall be stated in the minutes. Complete minutes of such meeting specifying the nature of the emergency and any formal action taken at the meeting shall be made available for inspection as provided in subsection (5) of section 84-1413.

(9) In addition to any other statutory authorization for virtual conferencing, any public body not listed in subdivision (3)(a) of this section may hold a meeting by virtual conferencing if:

(a) The purpose of the virtual meeting is to discuss items that are scheduled to be discussed or acted upon at a subsequent non-virtual open meeting of the public body;

(b) No action is taken by the public body at the virtual meeting; and

(c) The public body complies with subdivisions (3)(b)(i) and (ii) of this section.

84-1412. Meetings of public body; rights of public; public body; powers and duties.

(1) Subject to the Open Meetings Act, the public has the right to attend and the right to speak at meetings of public bodies, and all or any part of a meeting of a public body, except for closed sessions called pursuant to section 84-1410, may be videotaped, televised, photographed, broadcast, or recorded by any person in attendance by means of a tape recorder, a camera, video equipment, or any other means of pictorial or sonic reproduction or in writing. Except for closed sessions called pursuant to section 84-1410, a public body shall allow members of the public an opportunity to speak at each meeting.

(2) It shall not be a violation of subsection (1) of this section for any public body to make and enforce reasonable rules and regulations regarding the conduct of persons attending, speaking at, videotaping, televising, photographing, broadcasting, or recording its meetings, including meetings held by virtual conferencing.

(3) No public body shall require members of the public to identify themselves as a condition for admission to the meeting nor shall such body require that the name of any member of the public be placed on the agenda prior to such meeting in order to speak about items on the agenda. The body shall require any member of the public desiring to address the body to identify himself or herself, including an address and the name of any organization represented by such person unless the address requirement is waived to protect the security of the individual.

(4) No public body shall, for the purpose of circumventing the Open Meetings Act, hold a meeting in a place known by the body to be too small to accommodate the anticipated audience.

(5) No public body shall be deemed in violation of this section if it holds its meeting in its traditional meeting place which is located in this state.

(6) No public body shall be deemed in violation of this section if it holds a meeting outside of this state if, but only if:

(a) A member entity of the public body is located outside of this state and the meeting is in that member's jurisdiction;

(b) All out-of-state locations identified in the notice are located within public buildings used by members of the entity or at a place which will accommodate the anticipated audience;

(c) Reasonable arrangements are made to accommodate the public's right to attend, hear, and speak at the meeting, including making virtual conferencing available at an in-state location to members, the public, or the press, if requested twenty-four hours in advance;

(d) No more than twenty-five percent of the public body's meetings in a calendar year are held out-of-state;

(e) Out-of-state meetings are not used to circumvent any of the public government purposes established in the Open Meetings Act; and

(f) The public body publishes notice of the out-of-state meeting at least twenty-one days before the date of the meeting in a legal newspaper of statewide circulation.

(7) Each public body shall, upon request, make a reasonable effort to accommodate the public's right to hear the discussion and testimony presented at a meeting.

(8) Public bodies shall make available at the meeting or the in-state location for virtual conferencing as required by subdivision (6)(c) of this section, for examination and copying by members of the public, at least one copy of all reproducible written material to be discussed at an open meeting, either in paper or electronic form. Public bodies shall make available at least one current copy of the Open Meetings Act posted in the meeting room at a location accessible to members of the public. At the beginning of the meeting, the public shall be informed about the location of the posted information.

84-1413. Meetings; minutes; roll call vote; secret ballot; when; agenda and minutes; required on website; when.

(1) Each public body shall keep minutes of all meetings showing the time, place, members present and absent, and the substance of all matters discussed.

(2) Any action taken on any question or motion duly moved and seconded shall be by roll call vote of the public body in open session, and the record shall state how each member voted or if the member was absent or not voting. The requirements of a roll call or viva voce vote shall be satisfied by a public body which utilizes an electronic voting device which allows the yeas and nays of each member of such public body to be readily seen by the public.

(3) The vote to elect leadership within a public body may be taken by secret ballot, but the total number of votes for each candidate shall be recorded in the minutes.

(4) The minutes of all meetings and evidence and documentation received or disclosed in open session shall be public records and open to public inspection during normal business hours.

(5) Minutes shall be written or kept as an electronic record and shall be available for inspection within ten working days or prior to the next convened meeting, whichever occurs earlier, except that cities of the second class and villages may have an additional ten working days if the employee responsible for writing or keeping the minutes is absent due to a serious illness or emergency.

(6) Beginning July 31, 2022, the governing body of a natural resources district, the city council of a city of the metropolitan class, the city council of a city of the primary class, the city council of a city of the first class, the county board of a county with a population greater than twenty-five thousand inhabitants, and the school board of a school district shall make available on such entity's public website the agenda and minutes of any meeting of the governing body. The agenda shall be placed on the website at least twenty-four hours before the meeting of the governing body. Minutes shall be placed on the website at such time as the minutes are available for inspection as provided in subsection (5) of this section. This information shall be available on the public website for at least six months.

84-1414. Unlawful action by public body; declared void or voidable by district court; when; duty to enforce open meeting laws; citizen's suit; procedure; violations; penalties.

(1) Any motion, resolution, rule, regulation, ordinance, or formal action of a public body made or taken in violation of the Open Meetings Act shall be declared void by the district court if the suit is commenced within one hundred twenty days of the meeting of the public body at which the alleged violation occurred. Any motion, resolution, rule, regulation, ordinance, or formal action of a public body made or taken in substantial violation of the Open Meetings Act shall be voidable by the district court if the suit is commenced more than one hundred twenty days after but within one year of the meeting of the public body in which the alleged violation occurred. A suit to void any final action shall be commenced within one year of the action.

(2) The Attorney General and the county attorney of the county in which the public body ordinarily meets shall enforce the Open Meetings Act.

(3) Any citizen of this state may commence a suit in the district court of the county in which the public body ordinarily meets or in which the plaintiff resides for the purpose of requiring compliance with or preventing violations of the Open Meetings Act, for the purpose of declaring an action of a public body void, or for the purpose of determining the applicability of the act to discussions or decisions of the public body. It shall not be a defense that the citizen attended the meeting and failed to object at such time. The court may order payment of reasonable attorney's fees and court costs to a successful plaintiff in a suit brought under this section.

(4) Any member of a public body who knowingly violates or conspires to violate or who attends or remains at a meeting knowing that the public body is in violation of any provision of the Open Meetings Act shall be guilty of a Class IV misdemeanor for a first offense and a Class III misdemeanor for a second or subsequent offense.

Revised 07/2024

MINUTES
BOARD OF EDUCATION
November 11, 2024
7:30 PM

I. Call Meeting to Order

President Dave Zimmerman called the meeting to order at 7:30 p.m. and the following members were present: Betsy Frerichs, Dana Dorn, Dave Zimmerman, & Jared McKeever. The following administrators were present: Kane Hookstra, Jeff Murphy, & Christopher Prososki.

Reasonable advance publicized notice of the meeting was given according to law by publishing, a designated method for giving notice of the school district. Posted Location:

- Fairbury Journal-News

Posted Date: 11/6/2024

Reasonable advance notice was simultaneously given to board members and a copy of their acknowledgment of receipt of notice and the agenda attached. All proceedings hereafter shown were taken while the convened meeting was open to the attendance of the public.

I.A. Roll Call

I.B. Notice of Nebraska Open Meetings Act Posted

President Dave Zimmerman announced that a complete copy of the Nebraska Open Meetings Act was posted on the back of the board of education meeting room.

I.C. Motion to Excuse Debra Schlake & Jeff Argo from the November School Board Meeting

Motion to excuse Debra Schlake & Jeff Argo from the November school board meeting. This motion, made by Dana Dorn and seconded by Betsy Frerichs, passed.

Jeff Argo: Absent, Debra Schlake: Absent, Dana Dorn: yes, Betsy Frerichs: yes, Jared McKeever: yes, David Zimmerman: yes
yes: 4, no: 0, Absent: 2

II. Approval of Minutes from the October 14, 2024, Regular Board Meeting & Committee on American Civics Meeting

Motion to approve the minutes from the October 14, 2024, regular school board meeting & the committee on American civics meeting. This motion, made by Jared McKeever and seconded by Dana Dorn, passed.

yes: 4, no: 0, Absent: 2

III. Communications, Audiences, and Recognitions

III.A. Public comments will not be received after this period of time. Public comment period is limited to 5 minutes per person and a total of 30 minutes overall.

IV. Financial Statement: Items for Discussion, Consideration, and/or Action

IV.A. Approval of Bills

IV.A.1. General Fund, Special Building Fund, Depreciation Fund, and Qualified Capital Purpose Undertaking Fund Claims

Motion to approve the general fund, special building fund, depreciation fund, and qualified capitol purpose undertaking fund claims. This motion, made by Jared McKeever and seconded by Dana Dorn, passed.

yes: 4, no: 0, Absent: 2

IV.A.2. Lunch & Activity Claims

V. Support Service

V.A. Facility Update

John Eisenhower provided the school board with a written report on installing new light fixtures outside the elementary school, working on HVAC equipment, backflow inspection, and replacing the broken post indicator valve at the Jr./Sr. High School.

Dr. Proski said that he has been working with Engineering Technologies Inc to get the 3 condensing units out to bid. The plan is to start this project once school is out. In addition, he also mentioned that there are 6 rooftop units that are nearing the end of their life cycle and need replaced at the Jr./Sr. High School, and he would like to complete this project during the summer as well.

Dr. Proski said that the district had to pay over \$50,000 to work on the 3 condensing units in September, and it makes no sense to waste taxpayer money and put an expense band aide on these items anymore. He noted that when he first started at Southern, the district was borrowing over \$500,000 to make payroll, had leaking roofs, and boilers from the 1960s at the Jr./Sr. High School that were leaking carbon monoxide. In addition, on his first day on the job, he was also informed that he had to pay off a \$200,000 loan for 3 buses. Dr. Proski said the district has health cash reserves, and can cover the costs of the replacements and still be in a very good financial position. Dr. Proski said that he does not want to put his successor in a bad position when it comes to the district facilities like he was put in on his first day on the job.

V.B. Personnel Items

Alexis Robinson was hired as a food service provider, and Shane Saathoff resigned as the head high school football coach.

V.C. Technology Update

VI. Administrative and Committee Reports

VI.A. Student Board Member Report

VI.B. Elementary Principal's Report

The elementary principal reported on the following items: current enrollment figures, Dee Bednar being honored with a longevity counseling award, Red Ribbon week activities, 6th graders attending the Sportsmanship Conference, November WORDS training, final day of tutoring program at the elementary school, upcoming K-3 vocal music conference, and upcoming winter testing.

Jeff Argo arrived at the meeting at 7:42 p.m.

VI.C. Secondary Principal's Report

The secondary principal reported on the following items: the Veterans Day Program, all spots being filled in the alternative school, staff and students using the Epilog Laser Fusion Pro that was purchased with a federal grant, the start of winter sports, post-season awards, gate receipts and running in the red for both softball and volleyball gate receipts, and current enrollment figures.

VI.D. Superintendent's Report

Dr. Proski distributed the yearly required audit to the school board members, and he went over the 2024-2025 state aid recalculation, and he noted the district will lose \$11,283 in revenue next school year. Next, Dr. Proski went over the 2024 Certified School Adjustment Valuation report from the Nebraska Department of Revenue. From here, he went over the Legislative Resolution 378 regarding the Boards of Educational Lands and Funds. If the state legislature decides to sell off the 1.25 million acres, the district will lose \$63,000 in funding each year thereafter, and the district across Nebraska would need to raise their levy to make up for the lost revenue. Dr. Proski went over the Educators Health Alliance (EHA) medical and dental rates for the 2025-2026 school year, and he said the rates will increase by 5.49% and this increase will cost the district around \$40,000. From here, Dr. Proski presented the school board with a possible new superintendent evaluation system put together by KSB School Law.

This evaluation system is a lot shorter than the current evaluation system, and looks at items from bird's-eye view, and it does not dive into the day-to-day operations that the school board is not privy to the tasks that a superintendent has to complete on a daily basis. He then went over the 2024-2025 safety audit, which is required under Rule 10 (the accreditation requirements for K-12 public school districts in Nebraska). Dr. Proski went over the official enrollment numbers (364 students), poverty trends, option enrollment trends, and special education trends. Dr. Proski reminded the school board that 7 days after the regular December board meeting that his contract will automatically renew for 1 year pending the school board decides not to renew his contract. Dr. Proski said he is working with the Nebraska Department of Education (NDE) on a technical clean-up bill for TEEOSA or the state aid formula. Lastly, Dr. Proski noted that with the election of Donald Trump, there is going to be another push by his administration to give public money to private schools (called a school voucher program). During his last administration, and under the leadership of the Secretary of Education Betsy DeVos, they pushed for the privatization of schools in the United States and expanded school choice options in to private schools. Dr. Proski noted that these radical views may work in a

state like California, but giving public money to private schools does not match Nebraska's conservative educational values.

VII. Items for Discussion, Consideration, and/or Action

VII.A. Paying out Conditional Leave for All Employees Beyond the Maximum Accumulated Days for the 2024-2025 School Year and Beyond

Motion to paying out conditional leave for all employees beyond the maximum accumulated days for the 2024-2025 school year and beyond. This motion, made by Jared McKeever and seconded by Betsy Frerichs, passed.

yes: 5, no: 0, Absent: 1

Dr. Prosocki noted that this is a retention and recruitment strategy that was outlined in our new strategic plan that our students, staff, parents, patrons, school board members, and community members wanted us to implement based on Strategy 1 & Indicator 1 and Strategy 3 & Indicator 6. Moving forward, conditional leave (e.g., sick leave) accumulated beyond 50 days shall now be reimbursed at the substitute rate of pay for all school employees, and these payments shall be made in the fall of each contract year. Before the school board approved this provision, this fringe benefit was only occurring for teachers and no other school employees. Unconditional leave (e.g., personal, vacation, or PTO) has to be paid out under the current labor laws.

VII.B. Option Enrollment Applications

VII.C. Executive Session: Annual Superintendent Evaluation - As Needed to Protect the Interest of the District & to Prevent the Needless Injury to the Reputation of an Individual

Motion to enter in executive session at 8:27 p.m. as needed to protect the interest of the district & to prevent the needless injury to the reputation of an individual. This motion, made by Jeff Argo and seconded by Jared McKeever, passed.

yes: 5, no: 0, Absent: 1

VII.C.1. Convene Executive Session: Annual Superintendent Evaluation

VII.C.2. Reconvene Meeting from Executive Session

Motion to reconvene the meeting from executive session at 9:02 p.m. This motion, made by Jared McKeever and seconded by Jeff Argo, passed.

yes: 5, no: 0, Absent: 1

VII.C.3. Approval of Any Action Deemed Necessary as a Result of Executive Session

VIII. Adjournment

Motion to adjourn the meeting at 9:12 p.m. This motion, made by Betsy Frerichs and seconded by Dana Dorn, passed.

yes: 5, no: 0, Absent: 1

The next Regular Board meeting is scheduled for 7:30 p.m., December 9, 2024, at Southern Jr./Sr. High School Boardroom in Wymore. The Board of Education will usually adhere to the sequence of the published agenda, but reserves the right to adjust the order of items if necessary and may elect to amend the agenda as deemed necessary.

BY
President of the Board of Education
Of this School District

ATTEST
Secretary of the Board of Education
of this School District

PUBLIC PARTICIPATION

INSTRUCTIONS FOR MEMBERS OF THE PUBLIC WHO WISH TO SPEAK:
This is the portion of the meeting when members of the public may speak to the board about matters of public concern.

- **Getting Started:** When you have been recognized, please identify yourself, including an address and the name of any organization you represent. The board may waive the address requirement to protect the security of the individual.
- **Time Limit:** The board will generally allow a total of 30 minutes for the presentation of all public comments. Individuals may speak only one time, and must limit comments to around 5 minutes. If there are more than 6 individuals who wish to address the board, the 30 minutes will be divided equally between the number of speakers. These time limits may be changed by a majority vote of the board members in attendance to extend the time for a specific item or speaker.
- **Personnel or Student Topic:** If you are planning to speak about a personnel or a student matter involving an individual, please understand that the district has a complaint policy and/or procedures to resolve such complaints and concerns. The Board requests that you follow the policy and procedures before addressing these matters with the Board. Board members will generally not respond to any questions you ask or comments about individual staff members or students.
- **General Rules:** This is a public meeting for the conduct of business. Comments from the audience while others are speaking will not be tolerated. Lewd, obscene, profane, slanderous, threatening and hostile conduct or statements and fighting words (words whose mere utterance entails a call to violence) will not be tolerated.
- **No Action by the Board:** The board will not act on any matter unless it is on the published agenda.

HVAC Timeline/Funding Sources

Completion Date	HVAC Items Purchased	Overall Cost	Funding Source
September 30, 2021	RTU – High School Auditorium	\$86,572	ESSER III
September 30, 2021	3 Boilers – High School	\$344,581	ESSER II = \$307,084 Depreciation = \$37,497
February 23, 2022	Metasys/Controls/Thermostat – Both Buildings	\$93,654	ESSER III
September 30, 2022	3 Boilers – Elementary School	\$164,253	ESSER III
September 30, 2022	RTU, Dedicated Outdoor Air System (DOAS), & Kitchen Hood – High School Commons	\$229,248	ESSER III = \$208,197 Depreciation = \$21,051
December 1, 2022	Metasys/Controls/Thermostat – Updated all of the old ones in both building (They were not working anymore)	\$102,526	Depreciation = \$102,526
	Overall Cost	\$1,020,834	

Please Note: The majority of the items on the list above were past their shelf life and/or were not working at all or properly.

2016
Participation in Insurance Program by Board Members

Members of board of education may participate in the school district's health and life insurance plans which are provided to school district employees. A board member electing to participate in the insurance program of the school district shall pay both the employee and the employer portions of the premiums to the district in advance of any payments being due from the district to the insurance carrier.

Once a year, the board will place on its agenda a report identifying the board members who have elected to purchase insurance coverage through the district. This report shall be made available in the school district office for review by the public upon request.

Adopted on: 7-9-2018

Revised on: 2-10-2020

Reviewed on: _____

Southern Public Schools

Annual Report

2023-2024



Southern Elementary School
315 West 2nd Street
P.O. Box 158
Blue Springs, NE 68318
Phone: 402.645.3359
Fax: 402.645.3740

Southern Jr./Sr. High School
115 South 11th Street
P.O. Box 237
Wymore, NE 68466
Phone: 402.645.3326
Fax: 402.645.8049

<http://www.southernschools.org>

The school district does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups.

PURPOSE OF THIS REPORT

The 2023-2024 Annual Report is submitted to the patrons of Southern Public Schools in accordance with the accreditation rules set forth by the Nebraska Department of Education. The annual report provides patrons with information regarding our school demographics, student achievement, and financial information. This report highlights some of the challenges and accomplishments in our district.

NEBRASKA EDUCATION PROFILE

More information about Southern Public School's 2023-2024 academic year can be found on the Nebraska Education Profile at <http://nep.education.ne.gov>.

- 1) Go to the **DISTRICT AND SCHOOL DATA** tab at the center of the webpage.
- 2) Type **Southern School District 1** in the **Search NEP** box.
- 3) Click on **SOUTHERN SCHOOL DISTRICT 1** and click **Search**.

DESCRIPTION OF THE DISTRICT

Southern Public Schools is a progressive D-1 district with 374 students in grades PK-12. Southern is located in Wymore and Blue Springs, Nebraska in the southeastern part of the state. In 1968 the current district was created with the consolidation of the five communities of Wymore, Blue Springs, Barneston, Holmesville, and Liberty, along with much of their outlying area. Wymore is located south of Lincoln and eight miles north of the Kansas border. The Wymore & Blue Springs communities are located within a mile of each other and are home to two schools, Southern Elementary School (PK-6) and Southern Jr./Sr. High School (7-12). The 3-year-old preschool and the 4-year-old preschool programs are located in Blue Springs.

DISTRICT MOTTO

The Southern School District... a small-school community with big opportunities.

DISTRICT MISSION STATEMENT

Southern School District; a small-school community with big opportunities, empowers and engages students in educational, extracurricular, and real-world experiences that develop responsible, respectful, and productive citizens.

BOARD OF EDUCATION

Betsy Frerichs
Debie Schlake

Dana Dorn
Jared McKeerve

David Zimmerman
Jeff Argo

SCHOOL IMPROVEMENT GOALS

- All students will improve their reading comprehension.

BELIEF STATEMENTS

We believe all staff and students have the right to a learning environment that is conducive to high student achievement by ensuring everyone is emotionally, socially, and physically safe.

We believe in fostering the growth of our students in a technological world by integrating the tools of today to prepare them for the future.

We believe in helping students learn the value of leadership and how to become independent, problem-solving thinkers in society.

We believe in stewarding a growth mindset by supporting staff and students in becoming lifelong learners.

We believe our staff are valuable role models that empower our students to become responsible, respectful, and safe citizens.

ADMINISTRATION

Faculty Members	Education Level	Years Experience	Position
Christopher Proski	Ed.D.	16	Superintendent/Curriculum Director
Kane Hookstra	M.A.	28	PK-6 Principal
Jeff Murphy	M.A.	23	7-12 Principal/Athletic Director

ELEMENTARY SCHOOL STAFF

Faculty Members	Education Level	Years Experience	Position
Jonna Adams	M.A.	23	Fourth Grade Teacher
Jolene Bartels	M.A.	36	Fifth Grade Teacher
Chaysen Bednar	B.A.	5	Sixth Grade Teacher
Kylie Betten	B.A.	9	First Grade Teacher
Shannon Burges	B.A.	18	Fourth Grade Teacher
Shelby Decker	B.A.	1	Special Education Teacher
Rhonda Epp	M.A.	29	Third Grade Teacher
Stacy Fossler	M.A.	12	Special Education Teacher
Chelesy Fralin	M.A.	9	K-12 Media Specialist
Amanda Freese	B.A.	6	Preschool Teacher
Malinda Hock	M.A.	9	Sixth Grade Teacher
Taylor Landenberger	M.A.	6	Kindergarten Teacher
Anna Manley	M.A.	11	Preschool Teacher
Ashley McConnell	B.A.	6	Second Grade Teacher
Kimberly Milius	B.A.	7	First Grade Teacher
Jared Remmers	B.A.	13	Sixth Grade Teacher
Samantha Rzekonski	B.A.	2	Kindergarten Teacher
Lynn Sabey	M.A.	13	Second Grade Teacher
Mary Jane Spence	B.A.	46	Third Grade Teacher
Stephanie Ware	M.A.	25	Title I Teacher

Abbreviation	Degree
B.A.	Bachelor's Degree
M.A.	Master's Degree
Ed.S.	Education Specialist
Ed.D.	Doctor of Education

JR./SR. HIGH SCHOOL STAFF

Faculty Members	Education Level	Years Experience	Position
Deb Bachmann-Clasen	B.A.	24	English Teacher
Valerie Barnhart	M.A.	28	English Teacher
Hanah Baumgartner	B.A.	3	Social Science Teacher
Dominique Clay	M.A.	14	Spanish Teacher
Jeremy Doose	B.A.	3	Social Science Teacher
Cathy Hayden	B.A.	34	Science Grade Teacher
Josie Hulse	B.A.	2	K-12 Art Teacher
Greg Iverson	M.A.	11	Physical Education/Health Teacher
Preston Jurgens	B.A.	5	Mathematics Teacher
Heather McKinney	M.A.	28	Special Education Teacher
Brady Meyer	B.A.	5	Agriculture/Industrial Tech Teacher
Shannon Mick	M.A.	19	Mathematics Teacher
Gavin Nielson	M.A.	5	K-12 Instrumental Music Teacher
Jamie Schluter	M.A.	10	Business Teacher
Shelby Thernes	M.A.	6	Special Education Teacher
Pam Trauernicht	M.A.	25	7-12 School counselor
Jeffery Tunink	M.A.	14	Science Teacher
Jake Voorhis	B.A.	1	K-12 Vocal Music Teacher
Beth Willet	B.A.	44	K-12 PE Teacher

Abbreviation	Degree
B.A.	Bachelor's Degree
M.A.	Master's Degree
Ed.S.	Education Specialist
Ed.D.	Doctor of Education

CERTIFIED STAFF INFORMATION

Category	Southern	State
Average Teacher Salary	\$54,357	\$60,378
Average Years of Teaching Experience	15	14
Percent of Teachers with Master's Degrees	48%	59%

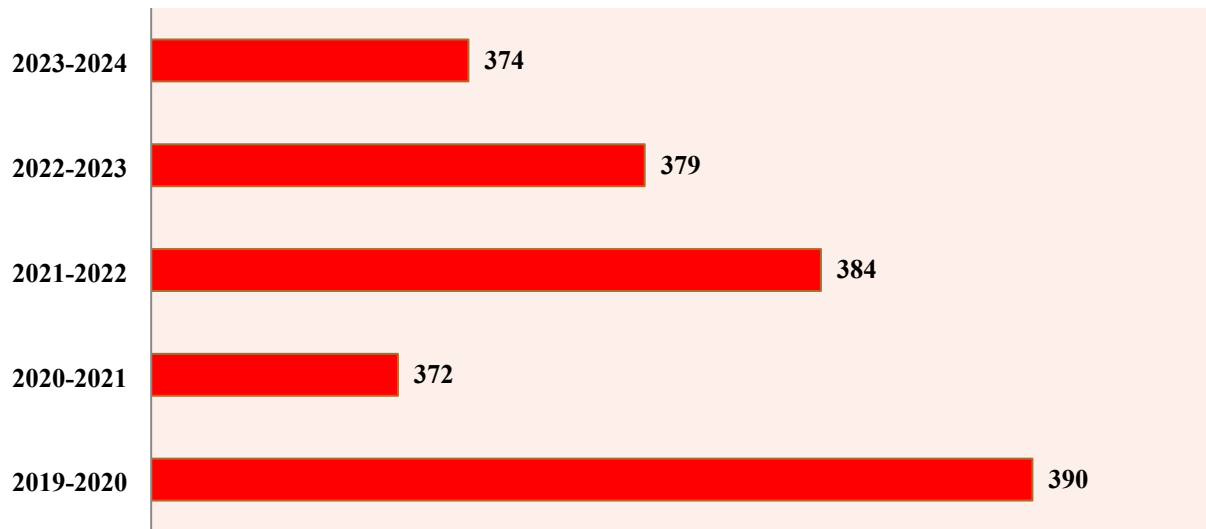
CLASSIFIED STAFF

Faculty Members	Position
Dyan Allington	School Nurse
Dona Bartels	Paraprofessional
Dee Bednar	PK-6 Community Counselor
Jessica Cooper	Paraprofessional
Susan Davis	Food Service Provider
John Eisenhower	Head of Maintenance
Wendy Garrels	Paraprofessional
Jeanne Hardin	Food Service Provider
Dave Kaster	Assistant Head of Maintenance
Karen Maguire	Secretary
Kim McMurray	Head Food Service Provider
Shelby McMurray	Food Service Provider
Jodi Meints	Paraprofessional
Tammy Meints	Custodian
Lori Moniz-Trisler	Paraprofessional
Patty Novotny	Preschool Paraprofessional
Naomi Pharr	Assistant Head Food Service Provider
Lavone Rabstejnek	Paraprofessional
Dawn Rakes	Secretary
Devin Riggs	Bus Driver
Ginger Riggs	Paraprofessional
Cody Sabey	Technology Coordinator
Brenden Salts	Custodian
Darcie Schmidt	Paraprofessional
Taylor Schmidt	Bookkeeper
Anthony Shepardson	Custodian
Angela Spencer	Paraprofessional
Audrey Whitwer	Data Steward
Steve Whitwer	Bus Driver
JoAnn Wieden	Food Service Provider

ENROLLMENT FIGURES

Compiled on October 1 (2023)			
Grade	Female	Male	Total
PK	11	17	28
K	14	9	23
1	13	11	24
2	8	9	17
3	11	22	33
4	13	11	24
5	12	17	29
6	11	10	21
Elementary School	93	106	199
7	14	18	32
8	12	10	22
9	18	13	31
10	16	12	28
11	17	15	32
12	13	17	30
Jr./Sr. High School	90	85	175
District	183	191	374

5-YEAR ENROLLMENT FIGURES (PK-12)



SOUTHERN PUBLIC SCHOOLS DEMOGRAPHICS
2023-2024 Academic Year

Student Characteristics	Southern Public Schools		State
Attendance Rate	92%		92%
Chronic Absenteeism	23%		21%
Dropout Rate	0%		1%
English Learners (EL)	N/A		9%
Free/Reduced Priced Meals	67%		52%
Graduation Rate (4-Year Cohort)	85%		87%
High Ability Learners	31%		12%
Highly Mobile	4%		4%
Special Education	22%		16%
Race/Ethnicity	American Indian/Alaskan Native:	1%	1%
	Asian:	0%	3%
	Black/African American:	2%	6%
	Hawaiian/Other Pacific Islander:	0%	1%
	Hispanic:	2%	22%
	Two or More Races:	5%	5%
	White:	90%	62%

Please Note: A N/A indicates that the data has been masked to protect the identity of students using one the following criteria:

- 1) Fewer than 10 students were reported in a group.
 - a) Fewer than 5 students were reported at a performance level.
- 2) All students were reported in a single group or performance category.

5-YEAR OPTION ENROLLMENT COMPARSION

School Year	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Option In Students	18	14	10	10	13
Option Out Students	-42	41	-38	-47	-37
Net Option	-24	-27	-28	-37	-24

**AMERICAN COLLEGE TESTING (ACT)
Longitudinal ACT Data**

		2020	2021	2022	2023	2024
<i>English</i>	District	*	17.9	17.5	15.2	15.6
<i>Mathematics</i>	District	*	18.2	17.8	16.4	15.6
<i>Reading</i>	District	*	18.4	18.0	15.6	16.1
<i>Science</i>	District	*	18.4	19.3	16.6	16.2
<i>Composite</i>	District	*	18.3	18.2	16.0	15.6

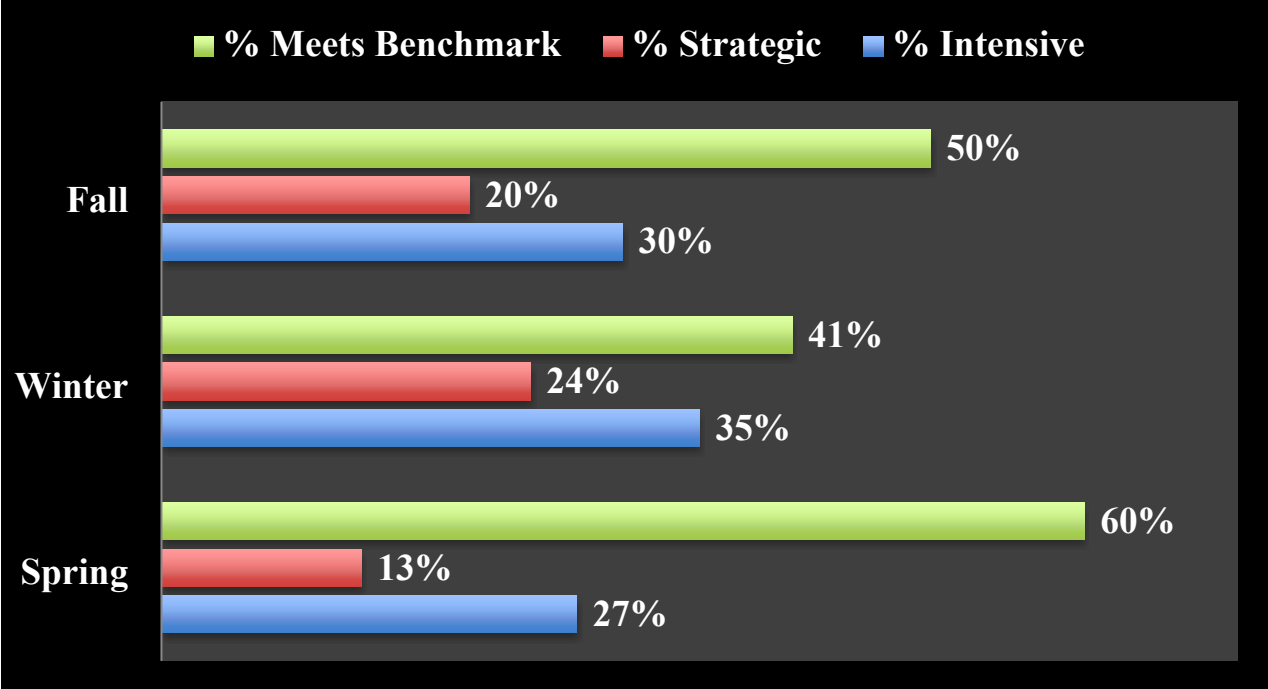
***Please Note:** Due to the COVID-19 pandemic, the ACT was not administered in the spring of 2020.

DYNAMIC INDICATORS OF BASIC EARLY LITERACY SKILLS

The universal screener that we utilize in our district is called Dynamic Indicators of Basic Early Literacy Skills or DIBELS. DIBELS is a set of measures for assessing the acquisition of early literacy skills from kindergarten through sixth grade. These assessments are designed to be short, one-minute fluency measures used to regularly monitor the development of early literacy skills. The DIBELS assessments are comprised of seven measures to function as indicators of phonemic awareness, alphabetic principle, accuracy and fluency with connected text, reading comprehension, and vocabulary.

**DIBELS SCORES (K-6 GRADE)
Percentage of Students Proficient by Indicators**

<i>Date</i>	# of students	Intensive (Well Below Benchmark)	Strategic (Below Benchmark)	Meets Benchmark (At Grade Level)
<i>Fall 2022</i>	176	30%	20%	50%
<i>Winter 2022</i>	173	35%	24%	41%
<i>Spring 2023</i>	169	27%	13%	60%



NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM (NSCAS)

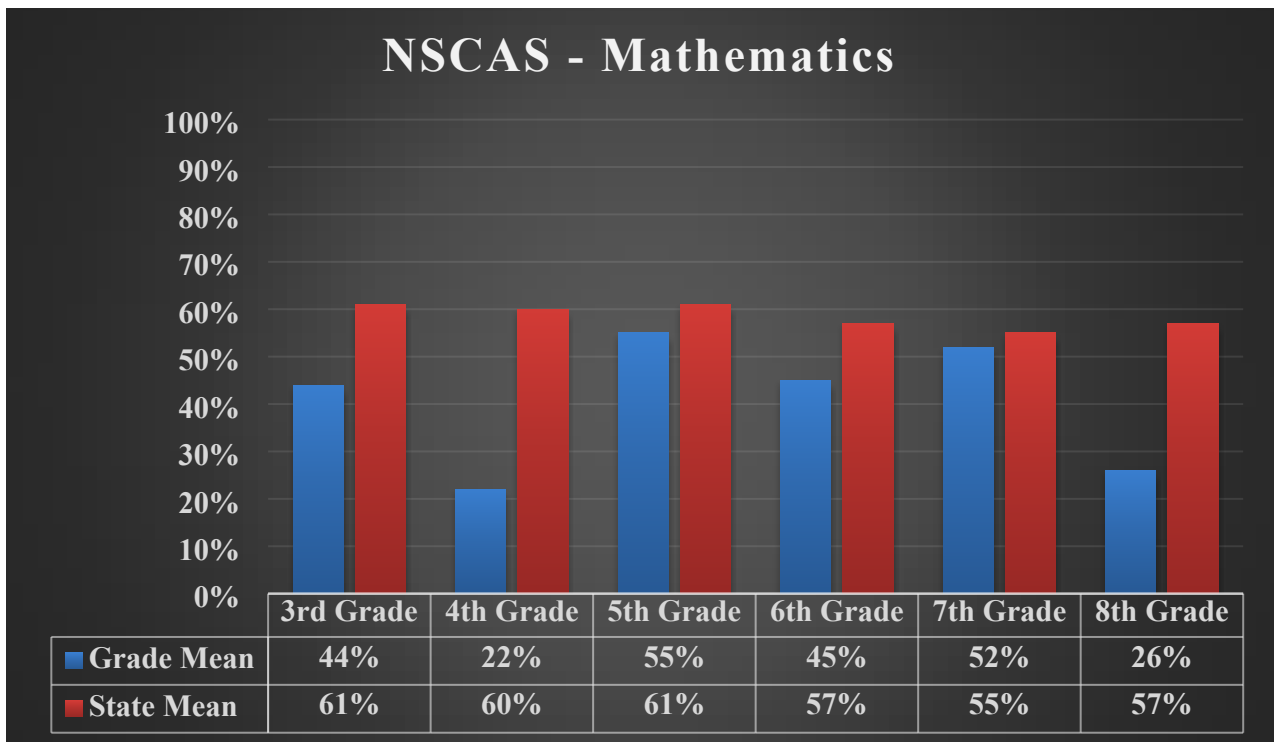
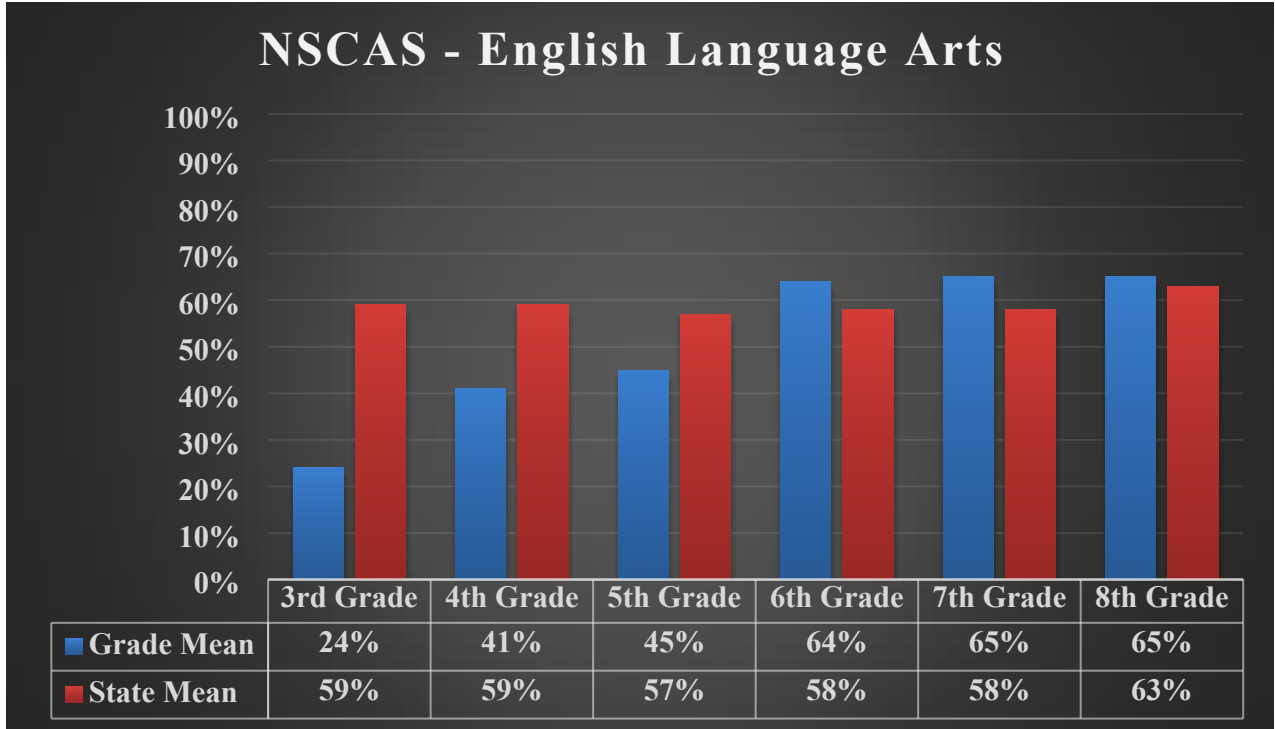
The Nebraska Student-Centered Assessment System (NSCAS) is a new statewide assessment system that embodies Nebraska’s holistic view of students and helps them prepare for success in postsecondary education, career, and civic life. It uses multiple measures throughout a school year to provide educators with the insights they need to support student learning. The following table is a breakdown of the NSCAS assessments administered at each grade level.

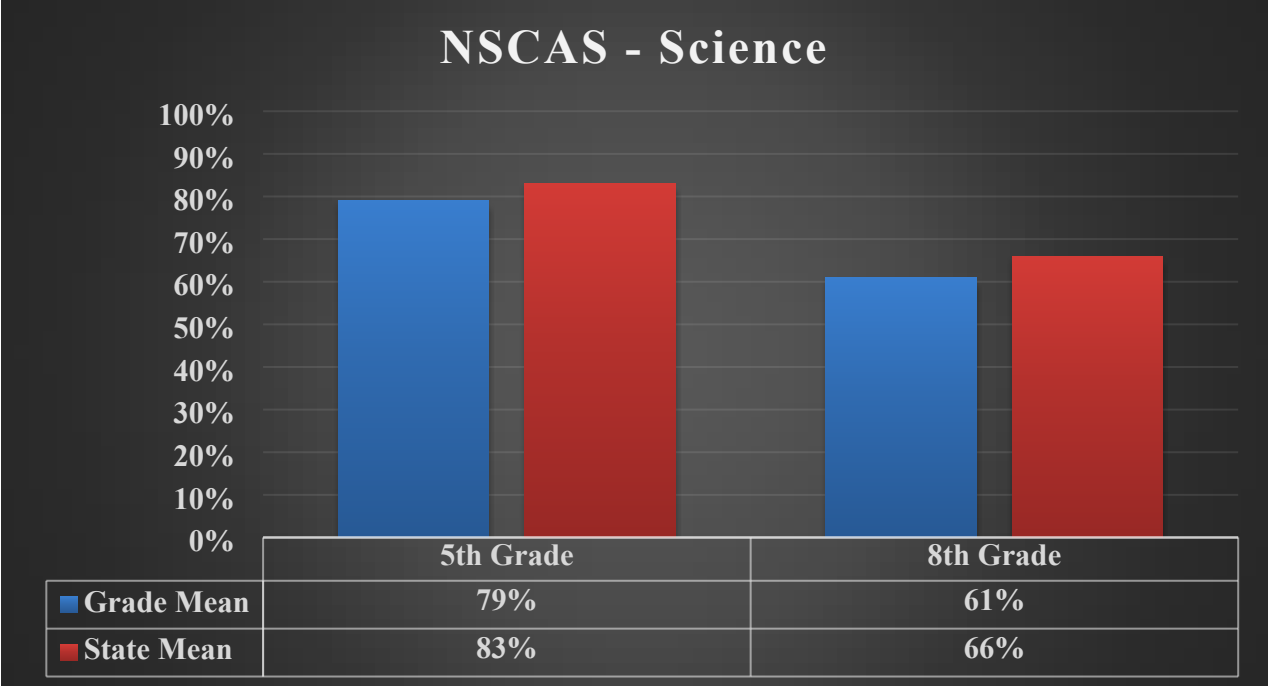
NSCAS Assessment	Subject	Grades Administered
NSCAS–ELA	English Language Arts	3-8
NSCAS–M	Mathematics	3-8
NSCAS–S	Science	5 & 8

NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM (NSCAS)

Percent Proficient by Grade/Subject Area

Spring 2023 Assessments





Please Note: A blank score indicates that the data has been masked to protect the identity of students using one the following criteria:

- 1) Fewer than 10 students were reported in a group.
 - a) Fewer than 5 students were reported at a performance level.
- 2) All students were reported in a single group or performance category.

NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM (NSCAS)
Combined Results for all Grades Tested
Percent Proficient

<i>Data Years</i>	English Language Arts	Mathematics	Science
<i>2023-2024</i>	49%	42%	72%
<i>2022-2023</i>	45%	40%	65%
<i>2021-2022</i>	30%	25%	57%
<i>2020-2021</i>	34%	24%	

2023-2024 BUDGET INFORMATION

Southern Public Schools continues to operate a fiscally responsible budget with very little state aid. Southern continues to have one of the lowest cost per pupil (student) in the Pioneer Conference and amongst school districts that are similar in size across Nebraska. Southern Public Schools continues to provide a high-quality education at an economical cost to district patrons.

5-YEAR MILL LEVY COMPARISON



5-YEAR MILL LEVY COMPARISON
Based on Home Values

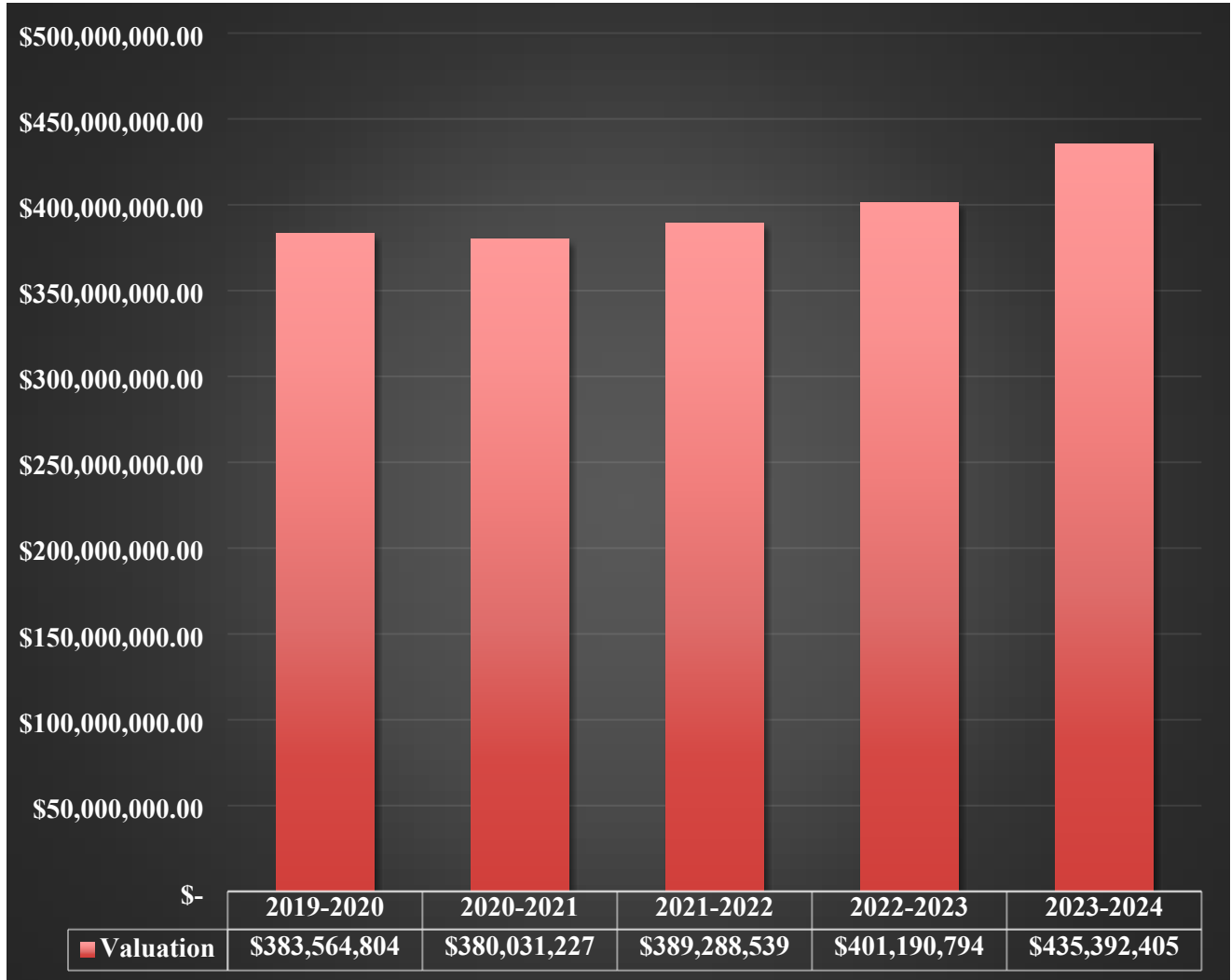
<i>Tax Year</i>	Total Mill Levy	Home Value	Taxes Paid (Per Month)	Taxes Paid (Per Year)
<i>2019</i>	1.0800	\$100,000	\$90	\$1,080
		\$200,000	\$180	\$2,160
		\$300,000	\$270	\$3,240
<i>2020</i>	1.0800	\$100,000	\$90	\$1,080
		\$200,000	\$180	\$2,160
		\$300,000	\$270	\$3,240
<i>2021</i>	1.0800	\$100,000	\$90	\$1,080
		\$200,000	\$180	\$2,160
		\$300,000	\$270	\$3,240
<i>2022</i>	1.0800	\$100,000	\$90	\$1,080
		\$200,000	\$180	\$2,160
		\$300,000	\$270	\$3,240
<i>2023</i>	1.0800	\$100,000	\$90	\$1,080
		\$200,000	\$180	\$2,160
		\$300,000	\$270	\$3,240

COST PER PUPIL BY AVERAGE DAILY MEMBERSHIP (ADM)
Pioneer Conference Comparison (2022-2023)

<i>District</i>	Rank (244 Districts Total)	Per Pupil Spending (ADM)
<i>Johnson-Brock</i>	42	\$15,607
<i>Sterling</i>	86	\$18,749
<i>Southern</i>	102	\$19,788
<i>Friend</i>	163	\$23,026
<i>Pawnee City</i>	173	\$23,473
<i>Diller-Odell</i>	193	\$24,890
<i>Lewiston</i>	215	\$29,579
<i>HTRS</i>	234	\$32,438
<i>Exeter-Milligan</i>	236	\$34,509
<i>FCSH</i>	N/A	N/A
<i>NCL</i>	N/A	N/A

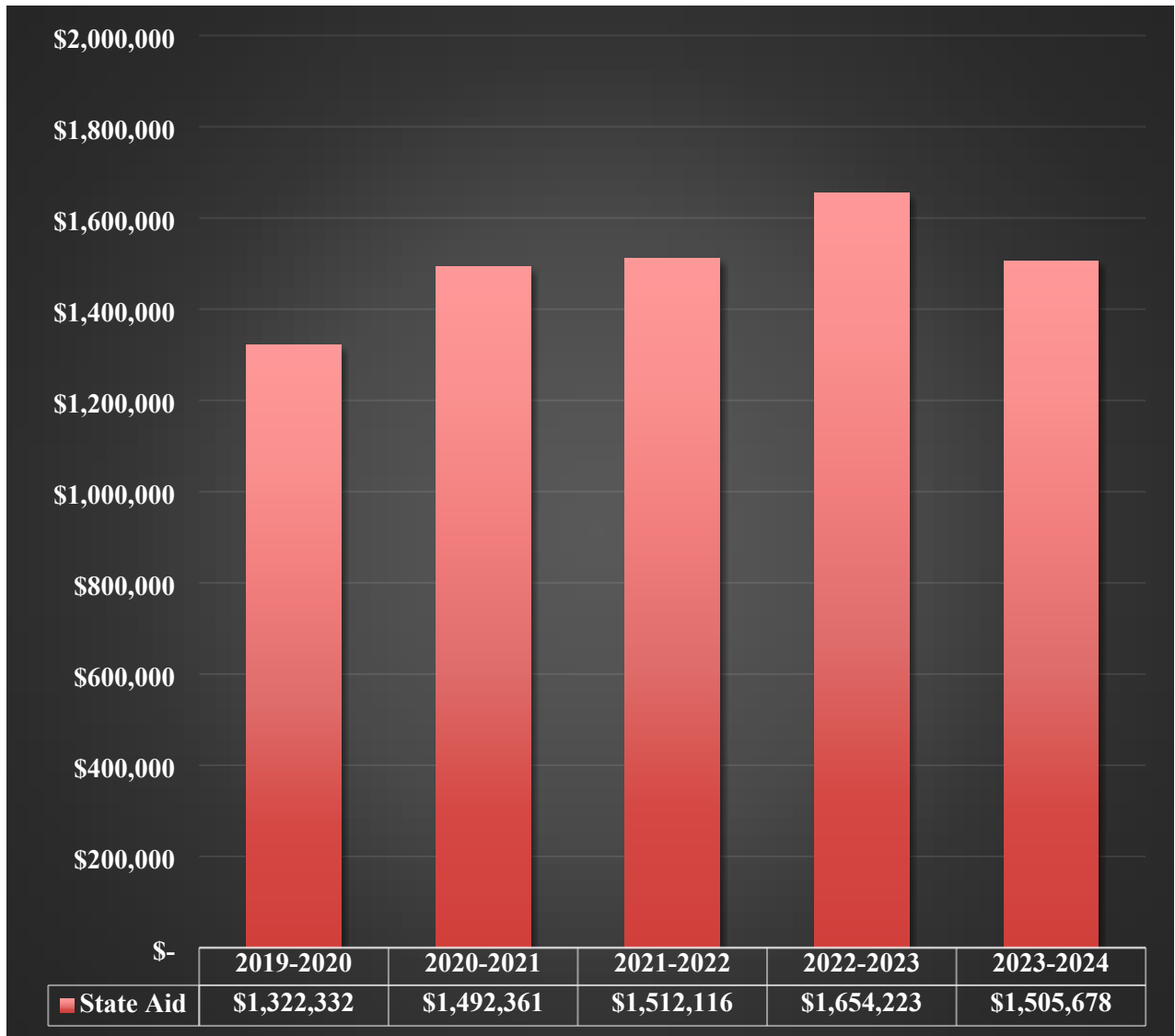
Please Note: The 2023-2024 cost per pupil by average daily membership is not available at this time.

5-YEAR VALUATION COMPARISON



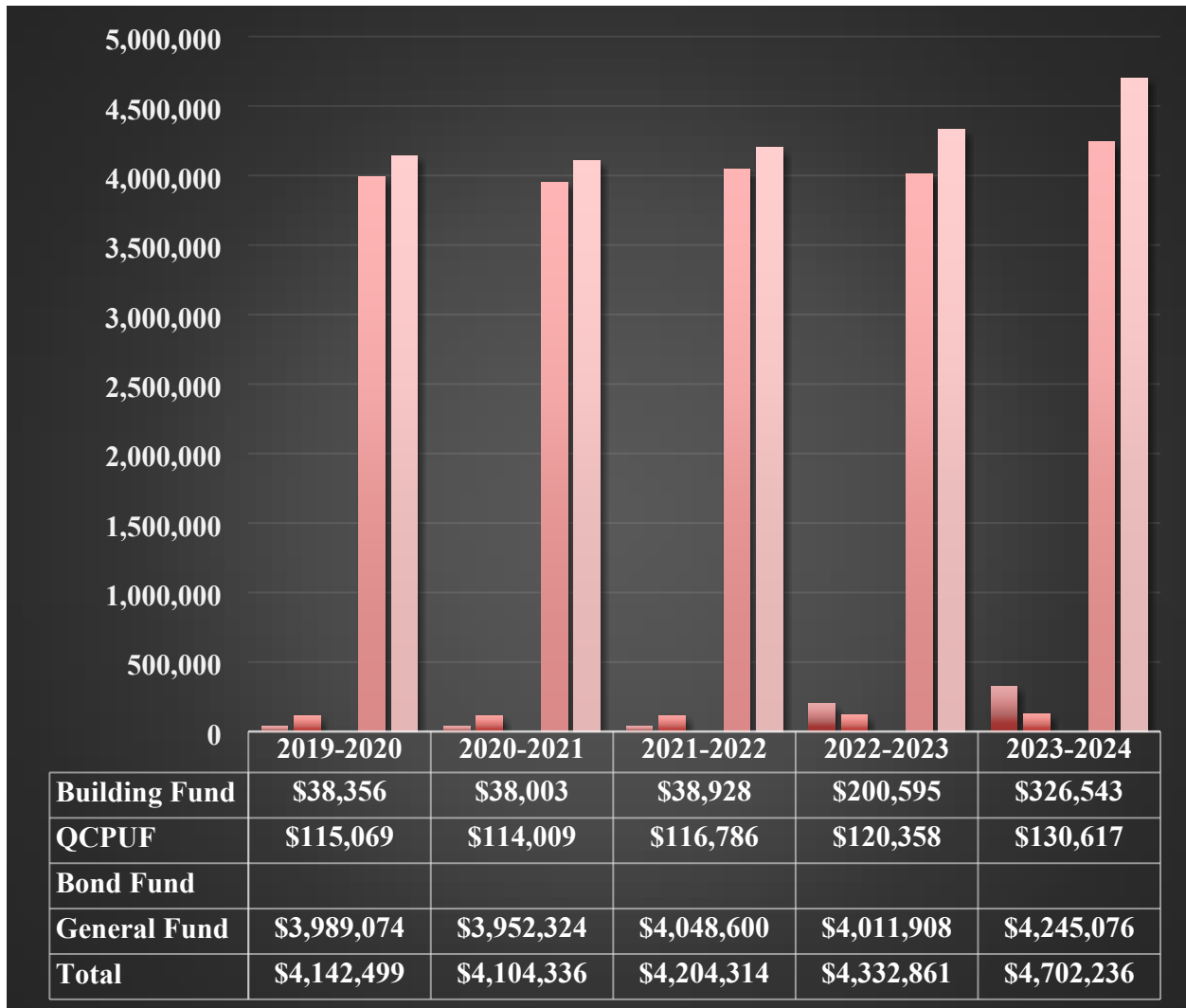
<i>Tax Year</i>	Gage County Valuation	% Change (Prior Year)	Pawnee County Valuation	% Change (Prior Year)	Overall Valuation	% Change (Prior Year)	\$ Change (Prior Year)
2019	\$382,188,694	(4.23%)	\$1,376,110	(0.00%)	\$383,564,804	(4.21%)	(\$16,874,224)
2020	\$378,656,597	(.92%)	\$1,374,630	(0.11%)	\$380,031,227	(0.92%)	(\$3,533,577)
2021	\$387,897,024	2.44%	\$1,391,515	1.23%	\$389,288,539	2.43%	\$9,257,312
2022	\$399,748,194	3.05%	\$1,442,600	3.67%	\$401,190,794	3.05%	\$11,902,255
2023	\$433,936,240	8.55%	\$1,456,165	0.94%	\$435,392,405	8.52%	\$34,201,611

5-YEAR STATE AID COMPARISON



<i>School Year</i>	State Aid (Allotment)	% Change (Prior Year)	\$ Change (Prior Year)
<i>2018-2019</i>	\$1,322,332	16.72%	\$189,496
<i>2020-2021</i>	\$1,492,361	12.85%	\$170,029
<i>2021-2022</i>	\$1,512,116	1.31%	\$19,755
<i>2022-2023</i>	\$1,654,223	9.40%	\$142,107
<i>2023-2024</i>	\$1,505,678	(9.86%)	(\$148,545)

5-YEAR PROPERTY TAX REQUEST COMPARISON



<i>Tax Year</i>	Local Property Tax Request	% Change (Prior Year)	\$ Change (Prior Year)
<i>2019-2020</i>	\$4,142,499	(4.39%)	(\$182,242)
<i>2020-2021</i>	\$4,104,336	(0.93%)	(\$38,163)
<i>2021-2022</i>	\$4,204,314	2.43%	\$99,978
<i>2022-2023</i>	\$4,332,861	3.05%	\$128,547
<i>2023-2024</i>	\$4,702,236	8.52%	\$369,375

Please feel free to contact me with any questions that you might have regarding the 2023-2024 Annual Report.

Dr. Christopher Prososki
Superintendent

K-12 Financial Literacy Act Report

Southern Public Schools

2023-2024



Southern Elementary School
315 West 2nd Street
P.O. Box 158
Blue Springs, NE 68318
Phone: 402.645.3359
Fax: 402.645.3740

Southern Jr./Sr. High School
115 South 11th Street
P.O. Box 237
Wymore, NE 68466
Phone: 402.645.3326
Fax: 402.645.8049

<http://www.southernschools.org>

Notice of Nondiscrimination: The school district does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups.

LB 452 Requirements

LB 452, signed by the Governor on May 26, 2021, and went into effect August 28, 2021. Nebraska Statue, 79-3004, known as the *Financial Literacy Act*, outlines the requirements for instruction in financial literacy. The law stipulates the following:

- A high school graduation requirement is required for all public schools in financial literacy.
- The class of 2024 must complete a course in personal finance or financial literacy.
- Each public school shall include financial literacy in their K-8 instructional programs as appropriate.
- Each school district must provide an annual financial literacy status report to its school board, including, but not limited to, student progress in financial literacy courses and other district-determined measures of financial literacy progress from the previous year.

K-12 Financial Literacy Curriculum

Grades K-5 Curriculum:

Grades K-3 & 5 = *myWorld Interactive*

Grade 4 = *The Nebraska Adventure, 2nd edition*

Grades 6-8 Curriculum:

American History

myWorld Interactive World Geography

myWorld Interactive World History

Grade 9-12 Curriculum:

Economics

Foundations in Personal Finance (Dave Ramsey)

7-12 Course Completion Percentages

Course	Course Completion Percentages
<i>American History</i>	94%
<i>myWorld Interactive World Geography</i>	97%
<i>Economics</i>	86%
<i>Foundations in Personal Finance</i>	91%

Policy 6005: Academic Credits and Graduation

Graduation from Southern High School requires that students must earn all credit hours before the time of graduation. Students will not be permitted to participate in Commencement Exercises if they have not successfully completed all credit hours and paid all bills before the Commencement Exercises.

Standard Graduation Requirements

Students must have completed 230 credit hours including credits in required areas as listed below:

English	40 credits
Mathematics	30 credits
Science	30 credits
Social Studies	30 credits
Personal Finance	10 credits
Physical Education/Health	10 credits
Vocational Education (Ag. or Business Classes)	10 credits
Computer Science & Technology (2027-2028 SY)	5 credits
Fine Arts	5 credits

Remaining credits are considered to be electives and may be chosen by the student.

Alternative School Graduation Requirements

Students must have completed 200 credit hours including credits in required areas as listed below:

English	40 credits
Mathematics	30 credits
Science	30 credits
Social Studies	30 credits
Computer Science & Technology (2027-2028 SY)	5 credits
Personal Finance	5 credits

Remaining credits are considered to be electives and may be chosen by the student.

Adopted on: 2-11-2019

Revised on: 9-11-2023

Reviewed on: _____

***Year End Report for 2023-2024
Grades K-12***

Kindergarten

Economics	
Economic Decision Making	
SS K.2.1 Differentiate between wants and needs in decision-making.	
SS K.2.1.a Classify wants and needs and explain subsequent choices.	<p>SE/TE: Needs and Wants, 63 Lesson 1 Check, 63 Chapter 3 Assessment, 77</p> <p>TE only: Differentiated Instruction: Special Needs, Below Level, Advanced</p> <p>Digital Resources: Chapter 3>Lesson 1>Lesson Review: Why People Work</p>
Financial Literacy	
SS K.2.2 Recognize money is used to purchase goods and services to satisfy economic wants and needs.	
SS K.2.2.a Explain the purposes of money.	<p>SE/TE: Why People Work, 62 Needs and Wants, 63 Our Neighborhood, 98 Critical Thinking Skills: Analyze Costs and Benefits, 64-65 Chapter 3 Assessment, 77</p> <p>Digital Resources: Chapter 3>Lesson 1>Lesson Review: Why People Work Chapter 3>Critical Thinking Skills>Skill Activity: Analyze Cost and Benefits</p>

First Grade

Economics
Economic Decision Making
SS 1.2.1 Explain how scarcity necessitates making choices.

<p>SS 1.2.1.a Identify gains and losses when choices are made.</p> <p><i>For example: tradeoff, opportunity cost</i></p>	<p>SE/TE: Making Choices, 188-189 Quest Connection, 188 Lesson 1 Check, 189 Critical Thinking Skills: Analyze Costs and Benefits, 204-205 Chapter 6 Assessment, 214 Quest Findings: Write Your Plan, 215</p> <p>Digital Resources: Chapter 6>Lesson 1>Introduction: Needs, Wants, and Choices; Quest Connection: What Stan Wants; Lesson Review Chapter 6>Critical Thinking Skills: Analyze Costs and Benefits>Skill Activity: Analyze Costs and Benefits Chapter 6>Chapter Closer>Quest Findings: Write Your Plan</p>
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Financial Literacy

SS 1.2.2 Compare spending and saving opportunities.

<p>SS 1.2.2.a Give examples of situations where students and families could choose to save for future purchases.</p>	<p>SE/TE: Quest Writing Using Sources: Help Stan Make a Money Plan, 184-185 Quest Connection, 202 Saving Money, 203 Lesson 4 Check Quest Findings: Write Your Plan, 215</p> <p>TE only: Performance Assessment: The Big Question, Writing Activity, 214</p> <p>Digital Resources: Chapter 6>Chapter Opener>Quest Kick Off: Help Stan Make a Money Plan Chapter 6>Lesson 4>Introduction: We Spend, Budget and Save; Quest Connection: Making a Budget; Lesson Review Chapter 6>Chapter Closer>Quest Findings: Write Your Plan</p>
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Exchange and Markets

SS 1.2.3 Explain that resources are used to produce goods and services.

<p>SS 1.2.3.a Categorize human and natural resources used to create goods and services.</p> <p><i>For example: iron ore (a natural resource) is made into steel, which the factory worker (a human resource) uses to build a bike (a good)</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE:</p> <p>Goods at Home, 190 Goods in School and the Community, 191 School and Community Services, 192 Quest Connection, 192 Lesson 2 Check, 193</p> <p>Digital Resources:</p> <p>Chapter 6>Lesson 2>Introduction: Goods and Services; Quest Connection: Which Is Which; Lesson Review</p>
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Second Grade

<p>Economics</p>	
<p>Economic Decision Making</p>	
<p>SS 2.2.1 Evaluate choices about how to use scarce resources that involve prioritizing wants and needs.</p>	
<p>SS 2.2.1.a. Justify a decision made by providing evidence of possible gains and losses.</p> <p><i>For example: tradeoff, opportunity cost, delayed gratification, savings</i></p>	<p>SE/TE:</p> <p>Making Choices, 110 Quest Connection, 110 Lesson 1 Check, 111 Critical Thinking Skills: Analyze Costs and Benefits, 112-113</p> <p>Digital Resources:</p> <p>Chapter 4>Lesson 1>Introduction: Needs, Wants and Choices; Quest Connection: Choose a Fruit; Lesson Review: Needs, Wants, and Choices Chapter 4>Critical Thinking Skills: Analyze Costs and Benefits>Skill Activity: Analyze Costs and Benefits</p>
<p>Financial Literacy</p>	
<p>SS 2.2.2 Demonstrate knowledge of currency, its denominations, and use.</p>	

<p>SS 2.2.2.a Make transactions using currency emphasizing its use as a medium of exchange.</p> <p><i>For example: via school store, buying pencils, purchases via debit card or Apple pay as a way to make transactions (medium of exchange)</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE: Jumpstart Activity, 104 Sing About It! What We Buy, 105 Getting What We Need and Want, 109 Who Are Consumers?, 120 Chapter 4 Assessment, 131</p> <p>TE only: Beyond the Classroom, 104b</p> <p>Digital Resources: Chapter 4>Chapter Opener>Sing About It! What We Buy</p>
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Exchange and Markets

SS 2.2.3 Describe how producers deliver products/services, earn an income, and satisfy economic needs and wants.

<p>SS 2.2.3.a. Explain the role of goods and services and supply and demand in a community.</p> <p><i>For example: meet wants and needs</i></p>	<p>SE/TE: Quest Writing Using Sources: Lend a Hand to Farmer Fran, 106-107 Needs and Wants, 108 Getting What We Need and Want, 109 Who Are Consumers?, 120 Quest Findings: Write Your Ad, 133</p> <p>Digital Resources: Chapter 4>Chapter Opener>Video: How do people get what they need?; Quest Kick Off: Lend a Hand to Farmer Fran Chapter 4>Lesson 1>Introduction: Needs, Wants and Choices; Lesson Review: Needs, Wants, and Choices Chapter 4>Lesson 3>Introduction: Producing and Consuming Goods Chapter 4>Chapter Closer>Quest Findings: Write Your Ad</p>
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Third Grade

<p>Economics</p>
<p>Economic Decision Making</p>

SS 3.2.1 Explain that people choose and decide what services they ask their local and state government to provide and pay for.	
SS 3.2.1.a Identify goods and services funded through state or local taxes. <i>For example: snow removal, waste management, law enforcement</i>	<p>SE/TE: Jumpstart Activity, 158 Local Government, 161 Quest Connection, 161 State Government, 162 Governments Work Together, 164</p> <p>Digital Resources: Chapter 4>Lesson 3>Introduction: Levels of Government; Quest Connection: Local Government Jobs; Lesson Review: Levels of Government</p>
Financial Literacy	
SS 3.2.2 Evaluate choices and consequences for spending and saving.	
SS 3.2.2.a Given a budget, make choices as to what to purchase, what to give up, and what to save.	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE: Jumpstart Activity, 64 Why We Have to Choose, 65 Making Choices, 68-69 Critical Thinking Skills: Analyze Costs and Benefits, 70-71 Chapter 2 Assessment, 81</p> <p>TE only: Support for English Language Learners, 64-65</p> <p>Digital Resources: Chapter 2>Lesson 3>Introduction: Economic Choices; Lesson Review: Economic Choices Chapter 2>Critical Thinking Skills: Analyze Costs and Benefits; Skill Activity: Analyze Costs and Benefits</p>
Exchange and Markets	
SS 3.2.3 Explain that markets are places where buyers and sellers exchange goods and services.	
SS 3.2.3.a Indicate various markets where buyers and sellers meet. <i>For example: grocery store, buy things online, mall, fast food places</i>	<p>SE/TE: Producing and Buying Local Goods, 50-51</p> <p>Digital Resources: Chapter 2>Chapter Opener>Video: Field Trip:</p>

	Farmers Market
National Economy	
SS 3.2.4 Describe how the local community trades with other communities.	
SS 3.2.4.a Identify local goods and services that could be traded with people everywhere. <i>For example: corn, soybeans, beef, irrigation systems, dry edible beans, art, buffalo hides, fish</i>	SE/TE: Early Economies, 48-49 Producing and Buying Local Goods, 50-51 Goods From Far Away, 53 Digital Resources: Chapter 2>Lesson 1>Introduction: Goods and Services

Fourth Grade

Economics	
Financial Decision-Making, Budgeting, and Spending	
SS 4.2.1 Describe how scarcity requires the consumer and producer to make choices and identify costs associated with them.	
SS 4.2.1.a Predict how consumers would react if the price of a good or service changed.	SE/TE Chapter 9: Lesson 2 Go To The Source (GTTS)
SS 4.2.1.b Predict how producers would react if the profit from selling a good or service changed.	SE/TE Chapter 9: Lesson 2 Go To The Source (GTTS)
SS 4.2.2 Investigate various financial institutions in Nebraska and the reasons for people's spending and saving choices.	
SS 4.2.2.a Identify financial institutions in the community and their purposes.	SE/TE Chapter 9: Lesson 2
SS 4.2.3 Investigate how resources are used to make other goods and produce services.	
SS 4.2.3.a Give examples of human, natural, capital, and entrepreneurial resources used in making goods and services in Nebraska and the United States.	SE/TE Chapter 9: Lesson 1
SS 4.2.4 Identify and explain specialization and trade and why different regions produce different goods and services.	
SS 4.2.4.a Compare Nebraska with different regions and the goods and services each region produces.	SE/TE Chapter 9: Lesson 3 Go To The Source (GTTS) Think Like A Historian (TLAH)

SS 4.2.4.b Discuss how technology has affected the specialization of Nebraska’s economy and surrounding states.	SE/TE Chapter 9: Lesson 3 Go To The Source (GTTS) Think Like A Historian (TLAH)
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Fifth Grade

Economics	
Exchange and Markets	
SS 5.2.3 Explain how human capital can be improved by education and training and thereby increase standards of living.	
SS 5.2.3.a List examples of how additional education/training improves productivity and increases standards of living. <i>For example: On the job training, education can all lead to higher wages.</i>	SE/TE: Turn and Talk, 450 African American Leaders, 563 New Institutions, 564 Changing Roles for Women, 569 Digital Resources: Chapter 12>Lesson 2>Introduction: Unequal Opportunities for African Americans; Key Ideas: New Leaders and Institutions Chapter 12>Lesson 3>Introduction: The Fight for Women’s Rights; Key Ideas: Changing Roles for Women/Working for More Rights
SS 5.2.4 Explain how specialization, division of labor, and technology increase productivity and interdependence.	

<p>SS 5.2.4.a Describe the historical role of innovation and entrepreneurship in a market economy.</p> <p><i>For example: apprentice, journeyman, early inventors and entrepreneurs</i></p>	<p>SE/TE: A New Beginning: Jamestown, 102 New Ways to Work, 364 New Goods and Services Meet the Needs of the Forty-Niners, 395 Quest Project-Based Learning: Taking a Risk, 508-509 Business Leaders Take Risks, 521 Quest Connection, 523 Quest Findings: Taking a Risk, 543 New Products, 599</p> <p>Digital Resources: Chapter 8>Lesson 1>Introduction: Inventions, Roads, and Railroads; Key Ideas: New Inventions Lead to Industrial Revolution Chapter 11>Chapter Opener>Quest Kick Off: Taking a Risk Chapter 11>Lesson 2>Introduction: The Impact of Big Business; Quest Connection: Building Businesses; Key Ideas Chapter 11>Chapter Closer>Quest Findings: Taking a Risk 360 Exploration: The Transcontinental Railroad</p>
<p>National Economy</p>	
<p>SS 5.2.5 Summarize characteristics of economic institutions in the United States.</p>	
<p>SS 5.2.5.a Describe the importance of financial institutions to households and businesses.</p> <p><i>For example: loans to agriculture, business, and individuals in order to provide capital; importance of rule of law to enforce contracts and provide for private property</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE: Introduction to the Constitution, 283 Achievements of the Progressive Era, 555 The Changing Workplace, 737 Jumpstart Activity, 794</p>
<p>SS 5.2.5.b Explain the rules and laws that protect and support consumers.</p> <p><i>For example: contracts, agreements, and product safety</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE: Solving America’s Problems, 553-554 Roosevelt Takes Action, 554 Quest Connection, 554 Achievements of the Progressive Era, 555</p>

	<p>Digital Resources: Chapter 12>Lesson 1>Introduction: The Progressive Era; Quest Connection: Investigate the Issues</p>
<p>SS 5.2.5.c Identify goods and services funded through federal taxes.</p> <p><i>For example: military and armed forces, parks</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE: Powers of State and National Government, 268 Impact of the Constitution on the Economy, 283-284 Lesson 4 Check, 289</p> <p>TE only: Differentiated Instruction: Below Level, 450</p>
<p>Global Economy</p>	
<p>SS 5.2.6 Summarize how specialization and trade impact the global market and relationships with other countries.</p>	
<p>SS 5.2.6.a Describe how international trade promotes specialization and division of labor and increases the productivity of labor, output, and consumption.</p> <p><i>For example: New England specialized in ship building and fishing, South Carolina grew rice, the Middle Colonies had grain, and the Upper South grew tobacco and got finished goods like books from Great Britain.</i></p>	<p>SE/TE: The Global Economy, 796-797</p> <p>TE Only: Active Classroom: Reciprocal Teaching, 797</p>
<p>SS 5.2.6.b Explain how trade impacts relationships between countries.</p> <p><i>For example: fur, tobacco, cotton, lumber, triangle trade, tribal trading with settlers</i></p>	<p>SE/TE: The Pilgrims and the Wampanoag People, 111 The French Explore North America, 118 The Growth of New Netherlands, 121 New Sweden, 122 Lesson 4 Check, 123 Trade Routes and the Location of the Colonies, 150-151 United States Trades Around the World, 493 The Global Economy, 796-797</p> <p>Digital Resources: Chapter 3>Lesson 4>Introduction: The French and Dutch in North America; Key Ideas: French Traders and Settlers; Lesson Review: The French and Dutch</p>

	in North America Chapter 4>Lesson 2>Introduction: Daily Life in the Colonies; Key Ideas: Resources of the Early Colonies
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Grades 6-8:
American History

Economics	
Financial Literacy	
SS 8.2.2 Understand personal and business financial management.	
<p>SS 8.2.2.a Identify skills for future financial success.</p> <p><i>For example: Identify key terms associated with budgeting, credit, savings, credit score, investing, fraud, and risk management.</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE: What Responsibilities Do Local Governments Have?, 245 Hamilton’s Plan, 264 The Market Economy and the Industrial Revolution, 412-413</p> <p>TE only: History Background: Planning a State Budget, 243 Practice Vocabulary, 292</p>
<p>SS 8.2.2.b Understand tools, strategies, and systems used to maintain, monitor, control, and plan the use of financial resources.</p> <p><i>For example: Analyze the impact of credit on an individual's ability to acquire goods and services, charitable contributions.</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE: Promoting a Free Market Economy, 287 New Ways to Produce Goods, 410-411</p> <p>TE only: Differentiated Instruction: Advanced, 145</p> <p>Digital Resources: Topic 6>Lesson 2>Interactive Chart: Advantages and Disadvantages of Big Business</p>
National Economy	
SS 8.2.4 Justify and debate economic decisions made by North American societies.	

<p>SS 8.2.4.a Research the origins and development of the economic system, banks, and financial institutions in the United States.</p> <p><i>For example: Examine the work of Alexander Hamilton and his influence on the banking system in the U.S. economy.</i></p>	<p>SE/TE: How Did Alexander Hamilton Deal with the National Debt?, 263-265 What Issues Divided Hamilton and Jefferson?, 274-276 Promoting a Free Market Economy, 287 Topic 5 Assessment, 331 The Bank War, 352-355</p> <p>Digital Resources: Topic 6>Lesson 2>Interactive Chart: Disagreements Over the Bank</p>
<p>SS 8.2.4.b Explain how tax revenues are collected and distributed.</p> <p><i>For example: Review the Constitution to understand the roles of each branch in establishing a national budget and how the separation of powers is structured.</i></p>	<p>SE/TE: Separation of Powers, 228 Analyze Charts: Separation of Powers, 228 What System Exists to Prevent the Abuse of Power?, 235-236 How Did Alexander Hamilton Deal with the National Debt?, 263-265 United States Constitution, 584-607</p> <p>Digital Resources: Topic 4>Lesson 5>Interactive Chart: The Federal System</p>
<p>SS 8.2.4.c Describe the progression of money and its role in early United States history.</p> <p><i>For example: Identify what forms of currency/bartering were used as a medium for exchange among various Native American tribes. Examine what services and regulations were established during the Progressive Era as urban areas' populations boomed. Examine the National Banking Act of 1863.</i></p>	<p>SE/TE: Analyze Images, 200 Concerns Over Debt and Currency, 200 How Did Alexander Hamilton Deal with the National Debt?, 263-265 How Did Hamilton Create a Stable Economy?, 266 Analyze Images, 355 How Was a Stable Economy Created After the War?, 319-321 The Whig Party, 341-342</p> <p>Digital Resources: Topic 6>Lesson 2>Interactive Chart: Disagreements Over the Bank; Interactive Graph: New York City Changes, 1840-1900</p>
<p>Global Economy</p>	
<p>SS 8.2.5 Illustrate how international trade impacts individuals, organizations, and nations.</p>	

<p>SS 8.2.5.a Explain that currency must be converted to make purchases in other countries.</p> <p><i>For example: Trace the conversion of products and currency between the French and the indigenous tribes of the Midwest.</i></p>	<p><i>For opportunities to address this standard please see:</i></p> <p>SE/TE:</p> <p>How Did New France Develop?, 66-69 Where Did the Dutch Establish New Netherland?, 70-71 New Amsterdam, 92 Concerns Over Debt and Currency, 200 The Far West Fur Trade, 377-378</p>
<p>SS 8.2.5.b Recognize how trade barriers impact the prices and quantity of goods. For example: Examine the impact of the Sugar and Molasses Act of 1733 and the Stamp Act of 1765.</p>	<p>SE/TE:</p> <p>Why Did the Stamp Act Anger Colonists?, 145-147 Topic 3 Assessment, 191 A Ban on Trade, 301-302</p>

World Geography

<p>Economics</p>	
<p>SS HS.3.1.b Analyze and explain changes in spatial patterns as a result of the interactions among human and physical processes.</p> <p><i>For example: major world physical features (mountains, seas, rivers), patterns of human settlement on local, regional, national, and global scale, governmental systems, economic systems, site and situation, Weber's Least Cost Theory, Von Thunen Model of Land Use</i></p>	<p>SE/TE:</p> <p>Changes in Land Use, 38 Reading Check, 105 Reading Check, 179 How Geographic Features Affect Where People Live, 321-323</p> <p>Digital Resources:</p> <p>21st Century Skills Tutorials>Analyze Cause and Effect>Analyze Cause and Effect: Video Topic 2>Lesson 5>Video: Where People Live in the United States</p>
<p>SS HS.3.2.c Evaluate the interdependence of places and regions.</p> <p><i>For example: models of industrial and economic development, new international division of labor, supranational organizations (The United Nations, Association of Southeast Asian Nations [ASEAN], or The European Union), globalization, popular culture, international trade agreements, patterns of human migration, alliances, Paris Climate Agreement, central place theory</i></p>	<p>SE/TE:</p> <p>Geographic Sources: The Effect of NAFTA, 137 Criticisms of Free Trade, 187 Analyze Charts, 190 Reading Check, 303 The European Union, 325</p> <p>TE only:</p> <p>Active Classroom, 238</p> <p>Digital Resources:</p> <p>Topic 3>Lesson 7>Interactive Chart: Mexico's Changing Economy and Exports</p>

	<p>Topic 3>Lesson 9>Interactive Chart: Economics and Development</p> <p>Topic 6>Lesson 3>Interactive Chart: EU Cooperation</p>
<p>SS HS.3.4.b Examine the spread of cultural traits and the potential benefits and challenges of cultural diffusion, economic development, and globalization.</p> <p><i>For example: cultural convergence and divergence, universalizing and ethnic religions, competition between multinational corporations and local businesses, folk cultures and popular cultures, spread of ideas (such as economic ideals, ideas on government, gender norms), diffusion of medical knowledge and impact on demographics, agricultural and industrial revolutions, models of economic development, the cultural landscape, Third Agricultural Revolution (Green Revolution), internet connectivity and cell phone networks, lingua franca, hypernationalism</i></p>	<p>SE/TE:</p> <p>Quest Project-Based Learning Inquiry, 8 Cultural Diffusion and Change, 53 Analyze Diagrams, 53 Lesson Check, 130</p> <p>A Diverse Region, 180-181 Lesson Check, 218 Cultural Diffusion, 512</p> <p>Topic 10 Review and Assessment, 539 Quest Document-Based Writing Inquiry, 654</p> <p>TE only:</p> <p>Differentiated Instruction, 8 English Language Learners, 8 Differentiated Instruction, 53</p> <p>Digital Resources:</p> <p>Social Studies Reference Center>Hip Hop Songs>World Geography>Hip Hop Geography: Western Europe</p> <p>Social Studies Core Concepts>Culture Core Concepts>Cultural Diffusion and Change Topic 6>Lesson 2>Video: Introducing the European Union Topic 9>Lesson 6>Interactive Gallery: Muslim Advances in Technology, Math, and Science Topic 11>Quest: DBQ: Comparing Economic Development>Quest Findings</p> <p>Topic 13>Quest: DBQ: Studying Cultural Connections>Quest Connection: Connect to Diversity; Examine Primary Sources: Studying Cultural Connections; Quest Findings</p>

World History

SS 7.2 Economics
National Economy

<p>SS 7.2.4 Investigate how varying economic systems impact individuals in a civilization/society.</p>	<p>SE/TE: Lords and Vassals Make Promises, 379 Lesson Check, 382 Guilds Protect Crafts, 387-388 Daimyo, Samurai, and Peasants, 525 Impact of Mercantilism, 703 Differing Ideologies, 834-835 Moving Toward Free Markets, 864</p> <p>Digital Resources: Social Studies Reference Center>Hip Hop Songs>World History>Hip Hop History: Early Medieval Europe Social Studies Core Concepts>Economics Core Concepts>Economics Core Concepts: Economic Systems Topic 9>Quest: Discussion: Freedom vs. Security>Quest Connection: Connect to Feudalism</p>
<p>SS 7.2.4.a Compare and contrast characteristics of different socio-economic groups in economic systems.</p>	<p>SE/TE: Lesson Check, 58 Lesson Check, 106 How Was Caste Determined?, 139 Lesson Check, 140 The Social Order, 208-209 Patricians and Plebeians, 287 Analyze Diagrams, 293 Analyze Charts, 379 Daimyo, Samurai, and Peasants, 525 Lesson Check, 692 The Three Estates, 773</p> <p>TE only: Differentiated Instruction, 36 English Language Learners, 292-293 Differentiated Instruction, 554-555 Differentiated Instruction, 690</p> <p>Digital Resources: Topic 3>Quest: Document-Based Writing: Become a Pharaoh-in-Training>Quest Connection: Connect to Egypt’s Social Pyramid Topic 9:>.Quest: Discussion: Freedom vs. Security>Quest Connection: Connect to Feudalism</p>

<p>SS 7.2.4.b Identify the relationships between diverse socio-economic groups and their economic systems in the modern world.</p>	<p>SE/TE: How Did the Caste System Develop?, 140 The Middle Class Grows, 705 What Are the Challenges of Globalization?, 866</p> <p>Digital Resources: Social Studies Core Concepts>Economics Core Concepts>Economics Core Concepts: Economic Systems</p>
<p>SS 7.2.5 Analyze information using appropriate data to draw conclusions about the total production, income, and economic growth in various economies.</p>	
<p>SS 7.2.5.a Define the government's role in various economic systems.</p>	<p>SE/TE: Controlling Production and Prices, 210-211 Currency, 495 Adam Smith and the Free Markets, 755-756 Laissez-Faire Economics, 789-790 Karl Marx and Communism, 790-791 How Did Governments Respond?, 824 Differing Ideologies, 834-835</p> <p>Digital Resources: 21st Century Skills Tutorials>Paying Taxes>21st Century Skill: Paying Taxes: Video Social Studies Core Concepts>Economics Core Concepts>Economics Core Concepts: Economic Systems</p>
<p>SS 7.2.5.b Identify various economic indicators that governments use to measure modern world societies, nations, and cultures.</p>	<p>SE/TE: Analysis Skills: Interpret Economic Performance, 295 Mansa Musa’s Hajj, 597 What Was the Price Revolution?, 703-704 Topic 16 Review and Assessment, 723 Worldwide Depression, 1929-1939, 823</p> <p>TE only: Differentiated Instruction, 707</p> <p>Digital Resources: Social Studies Core Concepts>Economics Core Concepts>Economics Core Concepts: Economic Process; Economics Core Concepts: Economic Development</p>

<p>SS 7.2.5.c Categorize goods and services provided in modern societies, nations, and cultures into the four factors of production.</p>	<p><i>For opportunities to address this standard please see:</i> SE/TE: How Did Cities Become Centers of Wealth?, 32 Natural Resources, 591 Land, Crops, and Prices Under Capitalism, 704</p> <p>Digital Resources: Social Studies Core Concepts>Economics Core Concepts>Economics Core Concepts: Economics Basics</p>
<p>Global Economy</p>	
<p>SS 7.2.6 Illustrate how international trade impacts individuals, organizations, and nations/societies.</p>	
<p>SS 7.2.6.a Explain how individuals gain through specialization and voluntary trade and how international trade affects the domestic economy.</p>	<p>SETE: What Were the Effects of Food Surpluses?, 30-31 Lesson Check, 32 Job Specialization, 36 Phoenician Traders, 67 Why was Trade Important for Egypt and Kush, 115-117 Trade Grows, 314-315 Lesson Check, 594 Italian City-States, 623 What Are the Challenges of Globalization?, 866-867 Lesson Check, 873</p> <p>TE only: Curriculum Connection: Economics, 47 History Background, 242</p> <p>Digital Resources: Social Studies Core Concepts>Economics Core Concepts>Economics Core Concepts: Trade Topic 1>Lesson 4>Video: The Birth of Farming Topic 19>Lesson 8>Video: Globalization</p>

Grades 9-12:

Economics Course

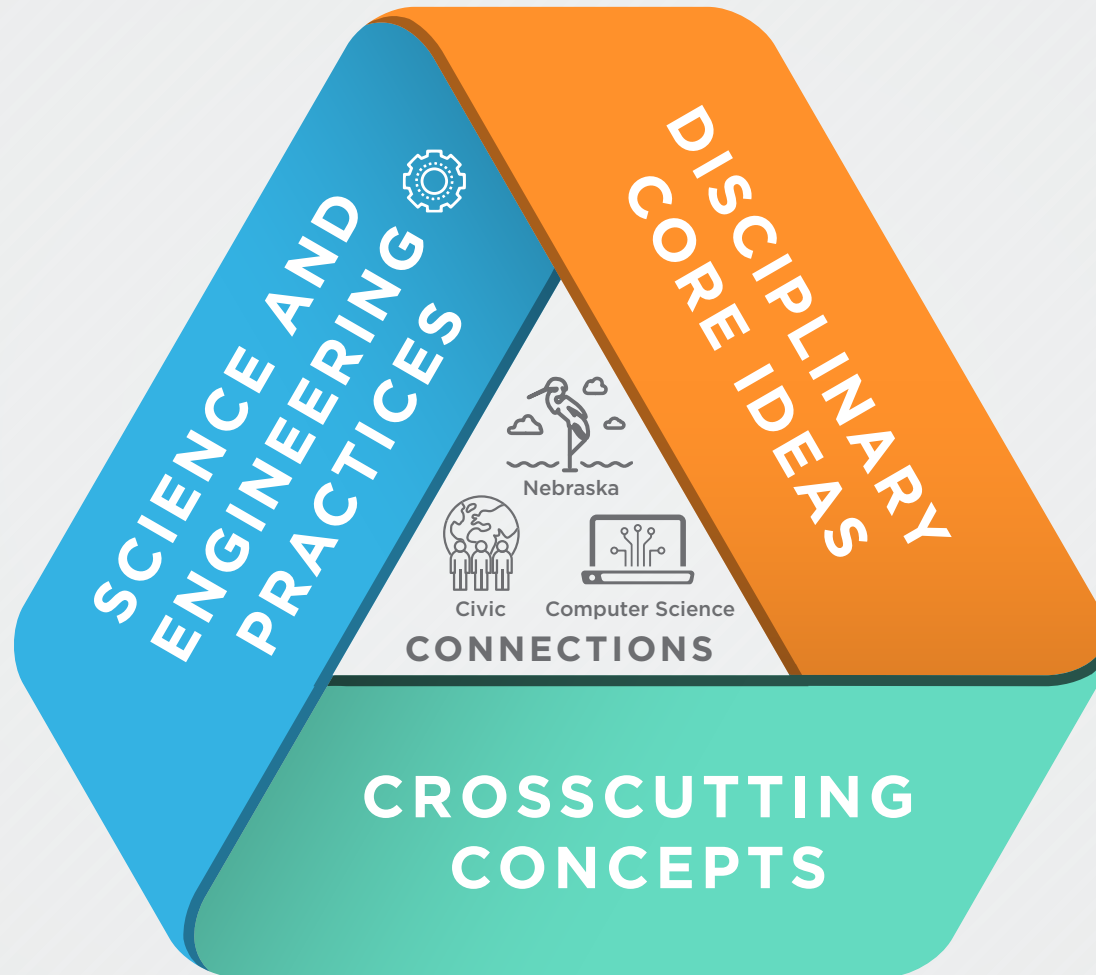
Chapter 1	<i>Fundamentals of Economics</i>
Chapter 2	<i>Free Enterprise and Other Economic Systems</i>
Chapter 3	<i>Demand, Supply, and Price</i>
Chapter 4	<i>Competition and Market Structures</i>
Chapter 5	<i>Business and Labor</i>
Chapter 6	<i>Money, Banking, and Financial Markets</i>
Chapter 7	<i>Economic Performance and Challenges</i>
Chapter 8	<i>Taxes and Spending</i>
Chapter 9	<i>Fiscal and Monetary Policy</i>
Chapter 10	<i>Trade, Development, and Globalization</i>

Personal Finance Course

Chapter 1	<i>Introduction to Personal Finance</i>
Chapter 2	<i>Budgeting Basics</i>
Chapter 3	<i>Saving Money</i>
Chapter 4	<i>Credit and Debt</i>
Chapter 5	<i>Consumer Awareness</i>
Chapter 6	<i>Career Readiness</i>
Chapter 7	<i>College Planning</i>
Chapter 8	<i>Financial Services</i>
Chapter 9	<i>The Role of Insurance</i>
Chapter 10	<i>Income and Taxes</i>
Chapter 11	<i>Housing and Real Estate</i>

Chapter 12	<i>Investing and Retirement</i>
Chapter 13	<i>Global Economics</i>

NEBRASKA'S COLLEGE AND CAREER READY STANDARDS FOR SCIENCE



NEBRASKA'S COLLEGE AND CAREER READY STANDARDS FOR SCIENCE 2024

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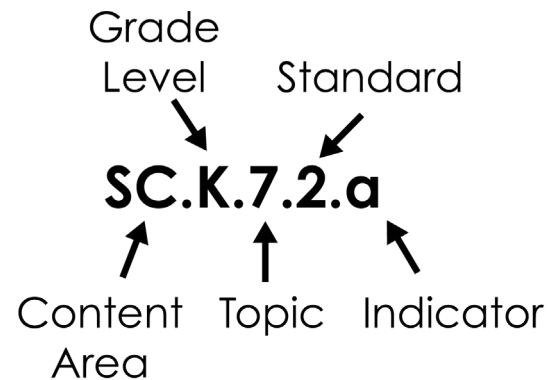
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CONTENT AREA STANDARDS STRUCTURE

The overall structure of Nebraska's College and Career Ready Standards for Science (CCR-Science) reflects the two-tier structure common across all Nebraska content area standards. The two levels within the structure include **standards** and **indicators**. The standards are broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of student learning. The standards, across all grade levels, reflect long-term goals for learning. **Indicators** further describe what students must know and be able to do to meet the standard. These performance-based statements provide clear expectations related to student learning in each content area. Additionally, indicators provide guidance related to the assessment of student learning. This guidance is articulated by including **assessment boundary** statements.

The CCR-Science standards describe the knowledge and skills that students should learn, but they do not prescribe particular curriculum, lessons, teaching techniques, or activities. Standards describe what students are expected to know and be able to do, while the local curriculum describes how teachers will help students master the standards. A wide variety of instructional resources may be used to meet the state content area standards. Decisions about curriculum and instruction are made locally by individual school districts and classroom teachers. The Nebraska Department of Education provides guidance related to high-quality instructional materials selection and implementation. Please visit the [Nebraska Instructional Materials Collaborative](#).

In addition to a common structure for content area standards, a consistent numbering system is used for content area standards. The numbering system is as follows:



CONTENT AREA STANDARDS OVERVIEW

Nebraska Revised Statute 79-760.01 requires the State Board of Education to adopt measurable academic content standards for the areas of reading, writing, mathematics, science, and social studies. Standards describe grade-level expectations for given content areas and provide a framework upon which Nebraska districts develop, establish, and implement curriculum. For effective teaching and learning to occur, the content area standards should drive local decisions related to instructional materials, resources, and interim, formative, and summative assessments.

The Nebraska Department of Education has identified quality criteria in the development of content area standards. These criteria ensure that standards are grounded in a strong research base of human cognition, motivation, and teaching and learning and describe essential knowledge and skills for college, career, and civic readiness. The revised science standards, written by teams of Nebraska educators and reviewed by local and national experts, were developed with the following indicators of quality:

Measurable: Standards provide benchmarks against which student progress toward learning goals can be measured.

Appropriately challenging: Standards must build in complexity so that by the end of grade 12, students are prepared for postsecondary education and the workforce.

Connected: Student learning is most effective when it connects knowledge and skills to related topics and authentic applications.

Clearly worded: Content area standards must effectively communicate what students should know and be able to do.

Scaffolded: Indicators in the Nebraska content area standards scaffold student learning by sequencing connected knowledge and skills across grades so that students build and deepen understanding and ability over time.

Specific: Specificity assures that the language used in standards and indicators is sufficiently detailed to be accurately interpreted by educators

ORGANIZATION AND STRUCTURE OF COLLEGE AND CAREER READY STANDARDS FOR SCIENCE (CCR-SCIENCE)

Nebraska's College and Career Ready Standards for Science (CCR-Science) are organized by grade level for grades K-8 and by grade span in high school. K-5 standards are organized to reflect the developmental nature of learning for elementary students and attend to the learning progressions that build foundational understandings of science. By the time students reach middle school (Grades 6-8), they build on this foundation in order to develop more sophisticated understandings of science concepts through high school. The topic progression for the CCR-Science standards is included in [Appendix A: Topic Progression](#).

Within each grade level/span the standards are organized around topics, and each standard addresses one topic. Each CCR-Science standard begins with the common stem: "Gather, analyze, and communicate..." This stem highlights long-term learning goals associated with rigorous science standards and provides guidance for high quality classroom instruction. To facilitate high-quality instruction, students actively gather evidence from multiple sources related to the topics. Evidence is carefully analyzed in order to describe and explain natural phenomena, and then, students communicate their understanding of the content using a variety of tools and strategies. It is important to note that while topics are introduced in a spiraled model, they are connected, and deeper understanding at subsequent

grade levels and spans requires foundational understanding of multiple topics.

The indicators reflect the three dimensions of science learning outlined in A Framework for K-12 Science Education¹. Each CCR-Science indicator includes a disciplinary core idea, a crosscutting concept (underline), and a **science and engineering practice** (**bold**).

Disciplinary Core Ideas (DCI)

The disciplinary core ideas are the focused, limited set of science ideas identified in the Framework as necessary for ALL students throughout their education and beyond their K-12 school years to achieve scientific literacy. The limited number of disciplinary core ideas allows more time for students and teachers to engage in the science and engineering practices as they deeply explore science ideas. To allow students to continually build on and revise their knowledge and abilities, the disciplinary core ideas are built on developmental learning progressions (Appendix A).

Crosscutting Concepts (CCC)

The crosscutting concepts are used to organize and make sense of disciplinary core ideas. They serve as tools that bridge disciplinary boundaries and deepen understanding of science content. With grade-appropriate proficiency, students are expected to use patterns (cause and effect, scale, proportion, and quantity), systems and system models (energy and matter, structure and function) and stability and change as they gather, analyze, and communicate scientific understanding.








These crosscutting concepts provide structure for synthesizing knowledge from various fields into a coherent and scientifically-based view of the world.

Science and Engineering Practices (SEP)

The **science and engineering practices** are used by students to demonstrate understanding of the disciplinary core ideas and crosscutting concepts. Engaging in the practices of science and engineering helps students understand the wide range of approaches used to investigate natural phenomena and develop solutions to challenges. Students are expected to demonstrate grade-appropriate proficiency in asking questions and defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations and designing solutions, engaging in argument from evidence, and obtaining, evaluating, and communicating information as they gather, analyze, and communicate scientific information.

Each science indicator focuses on one crosscutting concept and one **science and engineering practice** as an example to guide assessment. Curriculum, instruction, and assessment should reflect authentic science practice and be phenomena-based. Furthermore, curriculum, instruction, and assessment should use crosscutting concepts and **science and engineering practices** that go beyond what is stated in the indicator to better reflect authentic science practice. Utilizing the range of SEPs and CCCs will support deeper learning and greater understanding of the DCIs.

The following table lists the disciplinary core ideas, crosscutting concepts, and **science and engineering practices**:

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<ul style="list-style-type: none"> Asking Questions and Defining Problems Developing and Using Models Planning and Carrying Out Investigations Analyzing and Interpreting Data Using Mathematics and Computational Thinking Constructing Explanations and Designing Solutions Engaging in Argument from Evidence Obtaining, Evaluating, and Communicating Information 	<p> LS1: From Molecules to Organisms: Structures and Processes LS2: Ecosystems: Interactions, Energy, and Dynamics LS3: Heredity: Inheritance and Variation of Traits LS4: Biological Evolution: Unity & Diversity PS1: Matter and Its Interactions PS2: Motion and Stability: Forces and Interactions PS3: Energy PS4: Waves and Their Applications in Technologies for Information Transfer ESS1: Earth's Place in the Universe ESS2: Earth's Systems ESS3: Earth and Human Activity ETS1: Engineering Design </p>	<ul style="list-style-type: none">  Patterns  Cause and Effect  Scale, Proportion, and Quantity  Systems and System Models  Energy and Matter  Structure and Function  Stability and Change

¹ *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas*. Washington, DC: The National Academies Press, 2012.

Icon Titles & Descriptions



Nebraska Connections

Opportunities to teach science using topics directly relevant to our state (e.g. Ogallala Aquifer, agriculture, Nebraska-specific flora and fauna, Nebraska's rich geologic history, etc.) are listed throughout the CCR-Science standards as "Nebraska Connections." These connections allow educators to use local, regional, and state-specific contexts for teaching, learning, and assessment. Educators should use these as recommendations for investigation with students. Additionally, assessment developers have the opportunity to use the Nebraska contexts to develop Nebraska-specific examples or scenarios from which students would demonstrate their general understanding. This approach provides the opportunity for educators to draw upon Nebraska's natural environment and rich history and resources in engineering design and scientific research to support student learning.



Civic Science Connections

Within the CCR-Science standards, opportunities to create civic science connections have been identified. These connections are designed to highlight the importance of students engaging in the study of civic ideals, principles, and practices through participation in the act of "citizen science." Citizen science is the public involvement in inquiry and discovery of new scientific knowledge. This engagement helps students build science knowledge and skills while improving social behavior, increasing engagement, and strengthening community partnerships. Citizen science projects enlist K-12 students to collect or analyze data

for real-world research studies. Citizen science, in conjunction with the CCR-Science standards, helps bridge our K-12 students with stakeholders in the community, both locally and globally.



Computer Science Connections

Natural connections between science and computer science have been identified throughout the standards, especially in the middle level and in high school as students expand their ability to use computational thinking to develop complex models and simulations of natural and designed systems. Computers and other digital tools allow students to collect, record, organize, analyze, and communicate data as they engage in science learning.



Engineering, Technology, and Applications of Science Connections

Connections to engineering, technology, and applications of science are included at all grade levels and in all domains. They highlight the interdependence of science, engineering, and technology. Additionally, these connections drive the research and development cycle where discoveries in science lead to new technologies developed using the engineering design process. These connections call attention to the effects of scientific and technological advances on society and the environment.



Engineering Design

Performance indicators for the engineering design process are intentionally embedded in all grade levels. These indicators allow students to demonstrate their ability to define problems, develop possible solutions, and improve designs. ***These indicators should be reinforced whenever students are engaged in practicing engineering design during instruction.*** Having students engage in the engineering design process will prepare them to solve challenges both in and out of the classroom.

EDUCATOR SUPPORT & RESOURCES

Implementation

Effective science teaching, learning, and assessments should integrate disciplinary core ideas, crosscutting concepts, and **science and engineering practices**. Integration of the three dimensions will allow students to explain scientific phenomena, engage in sensemaking, design solutions to problems, and build a foundation upon which they can continue to learn and be able to apply science knowledge and skills within and outside the K-12 education arena. While each indicator incorporates the three dimensions, this alone does not drive student outcomes. Ultimately, student learning depends on how the standards are translated to instructional practices.

To support educators while they explore and implement content standards, the Nebraska Department of Education has developed the [Content Area Standards Implementation Framework](#). The Framework is based on implementation science and includes stages from “Exploration” to “Deep Implementation,” the types of work and activities associated with each stage, and roles of educators in ensuring successful implementation. The goal of the framework is to guide the alignment of standards, instruction, materials, and assessment to create a coherent system of learning.

Phenomenon-based Instruction

Three-dimensional instruction offers authentic learning experiences when students engage in describing and explaining the natural world. This involves focusing the conceptual learning on anchoring and investigative phenomena to better comprehend their observations. Students utilize evidence in the sensemaking process to build concepts in their minds. Phenomena are natural, observable events that we can explain or predict using our science knowledge (the singular form of phenomena is phenomenon).

Teachers are encouraged to adopt phenomenon-based instruction to fully engage students in three-dimensional science learning. This method can be summarized in three steps:

1. Introduce a new unit or concept with a phenomenon: Start by presenting a phenomenon that is relevant to students' lives. This engages them in asking questions about their observations and fosters a desire to learn more. Many teachers already use this approach by introducing new units or concepts with tangible examples such as pictures, videos, demonstrations, or laboratory experiences.
2. Engaging in science and engineering practices: Provide opportunities for students to gather and reason about information to explain the phenomenon. Sensemaking represents a shift in science instruction where teachers refrain from giving students direct answers. Instead, they should offer multiple opportunities for students to explore the phenomenon individually and in groups, while scaffolding their learning. This approach supports students in developing an understanding of scientific concepts and constructing their own explanations for the phenomenon.
3. Communicating understanding: Ensure students have multiple opportunities to articulate their thinking about why the phenomenon occurs. To deepen their understanding, check that student explanations progress from simple descriptions of what they observe to more complex explanations and predictions of what they think is happening with the phenomenon.

Throughout this process, teachers should not provide direct answers about the phenomenon. Instead, they should facilitate experiences that help students reach an appropriate understanding. Often, this involves engaging students in scientific arguments where they challenge each other's claims and explanations using their observations and collected evidence.

Teacher Guides

The [Teacher Guides](#) were created to provide guidance for developing effective instruction aligned to Nebraska's College and Career Ready Science Standards. They are intended to support teachers, administrators, science specialists, ESU's, instructional coaches, parents, and other stakeholders as they plan instruction and assessment at a local level.

The [Teacher Guides](#) are meant as a resource document which unwraps the indicators to support teacher's understanding of the standards. They are not meant to be used by students, and therefore they are not written in student-friendly language.

Nebraska Science Classroom Formative Task Repository

[The Nebraska Science Classroom Formative Task Repository](#) is a collection of K-12 formative tasks aligned to the indicator level of the standards. Tasks were developed by Nebraska educators and cover the breadth of the standards giving students an opportunity to provide evidence of what they can know and can do related to that standard.

Graduation Requirements

The high school life science, physical science, and Earth and space science standards are intended for **ALL** students to have learned by the end of 30 credit hours of high school science courses.

Rule 10

003.05 Graduation Requirements. Each high school must require from grades nine through twelve at least 200 credit hours for graduation, for which at least 80 percent must be from the core curriculum. The number of credit hours given for a course may be less than the number of instructional units and may be increased up to 25 percent above the number of instructional units.

003.05A3 Science. Thirty credit hours of science with course content that includes biological, earth/space, and physical science concepts with corresponding science inquiry skills and laboratory experience.

Course examples that offer the scope and sequence to include all three domains are included in [Appendix B: HS Integrated Science Course Model](#).

High School Plus Standards (HSP)

The High School Plus (HSP) standards represent advanced science topics designed to enhance the rigor of general science curricula or supplement additional advanced science courses. The standards were developed using postsecondary syllabi from entry level science courses for science majors (e.g. UNL LIFE 120, CHEM 109). Introducing the content to high school students will scaffold their learning providing a bridge between high school science coursework and postsecondary level coursework. If the indicator includes HSP, it is a plus standard which is supplemental.

KINDERGARTEN

The Kindergarten standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

What happens if you change how hard you push or pull an object?

Students are able to apply an understanding of the effects of different strengths or different directions of pushes and pulls on the motion of an object to analyze a design solution.

What is the weather like today and how is it different from yesterday?

Students are expected to develop understanding of patterns and variations in local weather and the purpose of weather forecasting to prepare for and respond to, severe weather.

Where do animals live and why do they live there?

Students are also expected to develop understanding of what plants and animals (including humans) need to survive and the relationship between their needs and where they live.

.....

SC.K.1 Forces and Interactions: Pushes and Pulls

SC.K.1.1 Gather, analyze, and communicate evidence of forces and their interactions.



SC.K.1.1.a **Plan and conduct an investigation to compare the effects of** different strengths or different directions of pushes and pulls on the motion of an object. Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets.



SC.K.1.1.b **Analyze data to determine if a design solution works** as intended to change the speed or direction of an object with a push or a pull. Assessment does not include friction as a mechanism for change in speed.

SC.K.7 Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment

SC.K.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.



SC.K.7.2.a **Use observations to describe patterns** of what plants and animals (including humans) need to survive.



SC.K.7.2.b **Construct an argument supported by evidence for how plants and animals (including humans) can change the environment** to meet their needs.



SC.K.7.2.c **Use a model to represent the relationship between the needs** of different plants or animals (including humans) and the places they live.

 *NE plants and animals*



SC.K.7.2.d **Communicate solutions** that will increase the positive impact of humans on the land, water, air, and/or other living things in the local environment.

 *NE conservation organizations and agricultural practices*

SC.K.12 Weather and Climate

SC.K.12.3 Gather, analyze, and communicate evidence of weather and climate.



SC.K.12.3.a **Use and share observations** of local weather conditions to describe patterns over time. Assessment of quantitative observations limited to whole numbers and relative measures such as warmer/cooler.



SC.K.12.3.b **Ask questions to obtain information** about the purpose of weather forecasting to prepare for, and respond to, severe weather.

 *emphasis on blizzards, tornadoes, drought, and floods*



SC.K.12.3.c **Make observations to determine** the effect of sunlight on Earth's surface.



SC.K.12.3.d **Use tools and materials to design and build a structure** that will reduce the warming effect of sunlight on an area.



SC.K.12.3.e **Ask questions, make observations, and gather information** about a situation people want to change to **define a simple problem that can be solved** through the development of a new or improved object or tool.

GRADE 1

The grade 1 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

What happens when materials vibrate?

Students are expected to develop understanding of the relationship between sound and vibrating materials.

How are parents and their children similar and different?

The understanding is developed that young plants and animals are like, but not exactly the same as, their parents.

What happens when there is no light?

Students are expected to develop understanding of the relationship between the availability of light and the ability to see objects. The idea that light travels from place to place can be understood by students at this level through determining the effect of placing objects made with different materials in the path of a beam of light.

What objects are in the sky and how do they seem to move?

Students are able to observe, describe, and predict some patterns of the movement of objects in the sky.

What are some ways plants and animals meet their needs so they can survive and grow?

Students are also expected to develop understanding of how plants and animals use their external parts to help them survive, grow, and meet their needs as well as how the behaviors of parents and offspring help offspring survive.

.....

SC.1.2 Waves: Light and Sound

SC.1.2.1 Gather, analyze, and communicate evidence of light and sound waves.



SC.1.2.1.a **Plan and conduct investigations** to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.



SC.1.2.1.b **Make observations to construct** an evidence-based explanation that objects can be seen only when illuminated.



SC.1.2.1.c **Plan and conduct an investigation** to determine the effect of placing objects made with different materials in the path of a beam of light. *Assessment does not include the speed of light.*



SC.1.2.1.d **Use tools and materials to design and build** a device that uses light or sound to solve the problem of communicating over a distance. *Assessment does not include technological details for how communication devices work.*

SC.1.6 Structure, Function, and Information Processing

SC.1.6.2 Gather, analyze, and communicate evidence to show the relationship between structure and function in living things.



SC.1.6.2.a **Use materials to design a solution** to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

 *NE plants and animals*



SC.1.6.2.b **Develop a simple sketch, drawing, or physical model** to illustrate how the shape of an object helps it function as needed to solve a given problem.



SC.1.6.2.c **Read grade appropriate texts and use media to determine** patterns in a behavior of parents and offspring that help offspring survive.

 *NE plants and animals*



SC.1.6.2.d **Make observations to construct an evidence-based account** that young plants and animals are like, but not exactly like, their parents. Assessment does not include inheritance or animals that undergo metamorphosis or hybrids.

 *NE plants and animals*

SC.1.11 Space Systems: Patterns and Cycles

SC.1.11.3 Gather, analyze, and communicate evidence of patterns and cycles of space systems.



SC.1.11.3.a **Use observations** of the sun, moon, and stars to describe patterns that can be predicted. Assessment of star patterns is limited to stars being seen at night and not during the day.



SC.1.11.3.b **Make observations** at different times of the year to relate the amount of daylight to the time of year. Assessment is limited to relative amounts of daylight, not quantifying the hours or time of daylight.

GRADE 2

The grade 2 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How are materials similar and different from one another and how do the properties of the materials relate to their use?

An understanding of observable properties of materials is developed by students at this level through analysis and classification of different materials.

What do plants need to grow?

Students are expected to develop an understanding of what plants need to grow and how plants depend on animals for seed dispersal and pollination.

How many types of living things live in a place?

Students are expected to compare the diversity of life in different habitats.

How does land change and what causes it to change?

Students are able to apply their understanding of the idea that wind and water can change the shape of land to compare design solutions to slow or prevent such change.

What are the different kinds of land and bodies of water?

Students are able to use information and models to identify and represent the shapes and kinds of land and bodies of water in an area and where water is found on Earth.

.....

SC.2.3 Structure and Properties of Matter

SC.2.3.1 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.



SC.2.3.1.a **Plan and conduct an investigation** to describe and classify different kinds of materials by their observable properties.

 *Soil properties*



SC.2.3.1.b **Analyze data obtained from testing different materials** to determine which materials have the properties that are best suited for an intended purpose. *Assessment of quantitative measurements is limited to length and weight.*



SC.2.3.1.c **Analyze data** from tests of two objects, **designed to solve the same problem**, to compare the strengths and weaknesses based on the properties.



SC.2.3.1.d **Make observations to construct an evidence-based account** of how an object made of a small set of pieces can be disassembled and made into a new object.



SC.2.3.1.e **Construct an argument with evidence** that some changes caused by heating or cooling can be reversed and some cannot.

SC.2.7 Interdependent Relationships in Ecosystems

SC.2.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.



SC.2.7.2.a **Plan and conduct an investigation** to determine if plants need sunlight and water to grow. *Assessment is limited to testing one variable at a time.*



SC.2.7.2.b **Develop a simple model** that mimics the function of an animal in dispersing seeds or pollinating plants.

SC.2.7.2.c **Make observations** of plants and animals **to compare** the diversity of life in different habitats. Assessment does not include specific animal and plant names in specific habitats.

NE habitats

SC.2.13 Earth's Systems: Processes That Shape the Earth

SC.2.13.3 Gather, analyze, and communicate evidence of the processes that shape the earth.



SC.2.13.3.a **Use information from several sources to provide evidence** that Earth events can occur quickly or slowly.

Assessment does not include quantitative measurements of timescales.

Flooding and tornadoes quickly cause change; wind slowly formed the Sandhills



SC.2.13.3.b **Compare multiple solutions designed to** slow or prevent wind or water from changing the shape of the land.

Soil conservation



SC.2.13.3.c **Develop a model to represent** the shapes and kinds of land and bodies of water in an area. Assessment does not include quantitative scaling in models.

Human made dams, sandbagging, windbreaks, terracing



SC.2.13.3.d **Obtain information to identify** where water is found on Earth and that it can be solid or liquid.

NE water bodies

GRADE 3

The grade 3 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How do equal and unequal forces on an object affect the object?

Students are able to determine the effects of balanced and unbalanced forces on the motion of an object and the cause and effect relationships of electrical or magnetic interactions between two objects not in contact with each other.

How can magnets be used?

Students are able to apply their understanding of magnetic interactions to define a simple design problem that can be solved with magnets.

How do organisms vary in their traits?

Students are expected to develop an understanding of the similarities and differences of organisms' life cycles. Students develop an understanding that organisms have different inherited traits and that the environment can also affect the traits that an organism develops. In addition, students are able to construct an explanation using evidence for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

How are plants, animals, and environments of the past similar or different from current plants, animals, and environments?

Students are expected to develop an understanding of types of organisms that lived long ago, and also about the nature of their environments.

What happens to organisms when their environment changes?

Students are expected to develop an understanding of the idea that when the environment changes some organisms survive and reproduce, some move to new locations, some move into the transformed environment, and some die.

What is typical weather in different parts of the world and during different times of the year?

Students are able to organize and use data to describe typical weather conditions expected during a particular season.

How can the impact of weather-related hazards be reduced?

By applying their understanding of weather-related hazards, students are able to make a claim about the merit of a design solution that reduces the impacts of such hazards.

.....

SC.3.1 Forces and Interactions: Motion and Stability

SC.3.1.1 Gather, analyze, and communicate evidence of forces and their interactions.



SC.3.1.1.a **Plan and conduct an investigation** to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. Assessment is limited to one variable at a time: number, size, or direction of forces. Assessment does not include quantitative force size, only qualitative and relative. Assessment is limited to gravity being addressed as a force that pulls objects down.



SC.3.1.1.b **Make observations and/or measurements** of an object's motion to provide evidence that a pattern can be used to predict future motion. Assessment does not include technical terms such as period and frequency.



SC.3.1.1.c **Ask questions** to determine cause and effect relationships of electrical or magnetic interactions between two objects not in contact with each other. Assessment is limited to forces produced by objects that can be manipulated by students. Electrical interactions are limited to static electricity.



SC.3.1.1.d **Define a simple design problem** that can be solved by applying scientific ideas about magnets.

SC.3.7 Interdependent Relationships in Ecosystems

SC.3.7.2 Gather, analyze, and communicate evidence of the interdependent relations in ecosystems.



SC.3.7.2.a **Construct an argument** that some animals form groups that help members survive.

 *NE animals*



SC.3.7.2.b **SC.3.7.2.b Analyze and interpret data** from fossils to provide evidence of the organisms and environments in which they lived long ago. Assessment does not include identification of specific fossils or present plants and animals. Assessment is limited to major fossil types and relative ages.

 *NE fossils; NE geologic history*



SC.3.7.2.c **Construct an argument with evidence** that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

 *NE habitats*



SC.3.7.2.d **Make a claim about the merit of a solution to a problem** caused when the environment changes and the types of plants and animals that live there may change. Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.

 *NE habitats*



SC.3.7.2.e **Generate and compare multiple possible solutions to a problem** based on how well each is likely to meet the criteria and constraints of the problem.

SC.3.9 Inheritance and Variation: Life Cycles and Traits

SC.3.9.3 Gather and analyze data to communicate an understanding of inheritance and variation of traits through life cycles and environmental influences.



SC.3.9.3.a **Develop models** to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.

 *NE plants and animals*



SC.3.9.3.b **Analyze and interpret data** to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. Assessment does not include genetic mechanisms of inheritance and prediction of traits. Assessment is limited to non-human examples.

 *NE plants and animals*



SC.3.9.3.c **Use evidence to support the explanation** that traits can be influenced by the environment.

 *NE plants, animals, and habitats*



SC.3.9.3.d **Use evidence to construct an explanation** for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

 *NE plants, animals, and habitats*

SC.3.12 Weather and Climate

SC.3.12.4 Gather and analyze data to communicate an understanding of weather and climate.



SC.3.12.4.a **Represent data** in table, pictograph, and bar graph displays to describe typical weather conditions expected during a particular season. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.

 *NE weather and climate*



SC.3.12.4.b **Obtain and combine information** to describe climates in different regions of the world.



SC.3.12.4.c **Make a claim about the merit of a design solution** that reduces the impacts of a weather-related hazard.

GRADE 4

The grade 4 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

What are waves and what are some of the things they can do?

Students are able to use a model of waves to describe patterns of waves in terms of amplitude and wavelength, and that waves can cause objects to move.

What is energy and how is it related to motion?

Students are able to use evidence to construct an explanation of the relationship between the speed of an object and the energy of that object.

How is energy transferred?

Students are expected to develop an understanding that energy can be transferred from place to place by sound, light, heat, and electrical currents or from object to object through collisions.

How can energy be used to solve a problem?

They apply their understanding of energy to design, test, and refine a device that converts energy from one form to another.

How do internal and external structures support the survival, growth, behavior, and reproduction of plants and animals?

Students are expected to develop an understanding that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. By developing a model, students describe that an object can be seen when light reflected from its surface enters the eye.

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SC.4.2 Waves: Waves and Information

SC.4.2.1 Gather, analyze, and communicate evidence of waves and the information they transfer.



SC.4.2.1.a **Develop a model** of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move. Assessment does not include interference effects, electromagnetic waves, non-periodic waves, or quantitative models of amplitude and wavelength.



SC.4.2.1.b **Generate and compare multiple solutions** that use patterns to transfer information.

SC.4.4 Energy: Conservation and Transfer

SC.4.4.2 Gather, analyze and communicate evidence of energy conservation and transfer.



SC.4.4.2.a Use evidence to **construct an explanation** relating the speed of an object to the energy of that object. Assessment does not include quantitative measures of changes in the speed of an object or on any precise or quantitative definition of energy.



SC.4.4.2.b **Make observations** to provide evidence that energy can be transferred from place to place by sound, light, heat, and electrical currents. Assessment does not include quantitative measurements of energy.

 *NE energy producers*



SC.4.4.2.c **Ask questions** and predict outcomes about the changes in energy that occur when objects collide. Assessment does not include quantitative measurements of energy.



SC.4.4.2.d Apply scientific ideas to **design, test, and refine a device** that converts energy from one form to another. Devices should be limited to those that convert motion energy to electric energy or use stored energy to cause motion or produce light or sound.



SC.4.4.2.e **Plan and carry out fair tests in which variables are controlled** and failure points are considered to identify aspects of a model or prototype that can be improved.



SC.4.4.2.f **Obtain and combine information** to describe that energy and fuels are derived from natural resources and that their uses affect the environment.

 *NE ethanol production*

SC.4.6 Structure, Function, and Information Processing

SC.4.6.3 Gather and analyze data to communicate an understanding of structure, function and information processing of living things.



SC.4.6.3.a **Develop a model** to describe that light reflecting from objects and entering the eyes allows objects to be seen. Assessment does not include knowledge of specific colors reflected and seen, the cellular mechanisms of vision, or how the retina works.



SC.4.6.3.b **Construct an argument** that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. Assessment is limited to macroscopic structures within plant and animal systems.

 *NE plants and animals*



SC.4.6.3.c **Use a model** to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information. Assessment does not include the mechanisms by which the brain stores and recalls information or the mechanisms of how sensory receptors function.

 *NE plants and animals*

SC.4.13 Earth's Systems: Processes That Shape the Earth

SC.4.13.4 Gather and analyze data to communicate an understanding of Earth's systems and processes that shape the Earth.



SC.4.13.4.a **Identify evidence** from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. Assessment does not include specific knowledge of the mechanism of rock formation or memorization of specific rock formations and layers. Assessment is limited to relative time.

 *NE fossils and geologic history*



SC.4.13.4.b **Make observations and/or measurements** to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. Assessment is limited to a single form of weathering or erosion.



SC.4.13.4.c **Analyze and interpret data** from maps to describe patterns of Earth's features.

SC.4.13.4.d **Generate and compare multiple solutions** to reduce the impacts of natural Earth processes on humans.
Assessment is limited to earthquakes, floods, tsunamis, and volcanic eruptions.

GRADE 5

The grade 5 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

When matter changes, does its weight (mass) change?

Students are able to describe that matter is made of particles too small to be seen through the development of a model. Students develop an understanding of the idea that regardless of the type of change that matter undergoes, the total weight of matter is conserved.

Can new substances be created by combining other substances?

Students determine whether the mixing of two or more substances results in new substance.

How does matter cycle through ecosystems and where does the energy in food come from and what is it used for?

Students develop an understanding of the idea that plants get the materials they need for growth chiefly from air and water. Using models, students can describe the movement of matter among plants, animals, decomposers, and the environment and that energy in animals' food was once energy from the sun.

How much water can be found in different places on Earth and how does water move through the Earth system?

Students describe and graph data to provide evidence about the distribution of water on Earth. Through the development of a model using an example students are able to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. This model will also allow students to define a simple design problem that relates to the conservation of fresh water.

How do lengths and directions of shadows or relative lengths of day and night change from day to day, and how does the appearance of some stars change in different seasons?

Students are expected to develop an understanding of patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

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SC.5.3 Structure and Properties of Matter

SC.5.3.1 Gather, analyze, and communicate evidence of structure and properties of matter.



SC.5.3.1.a **Develop a model** to describe that matter is made of particles too small to be seen. Assessment does not include the atomic-scale mechanism of evaporation and condensation or defining the unseen particles.



SC.5.3.1.b **Measure and graph quantities** to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. Assessment does not include distinguishing mass and weight.



SC.5.3.1.c **Make observations and measurements** to identify materials based on their properties. Assessment does not include density or distinguishing mass and weight.



SC.5.3.1.d **Conduct an investigation** to determine whether the mixing of two or more substances results in new substances.

SC.5.8 Matter and Energy in Organisms and Ecosystems

SC.5.8.2 Gather and analyze data to communicate understanding of matter and energy in organisms and ecosystems.



SC.5.8.2.a **Use models** to describe that energy in animals' food (used for body repair, growth, and motion and to maintain body warmth) was once energy from the sun.



SC.5.8.2.b **Support an argument** that plants get the materials they need for growth chiefly from air and water.



SC.5.8.2.c **Develop a model** to describe the movement of matter among plants, animals, decomposers, and the environment. Assessment does not include molecular explanations or the biochemical mechanisms of photosynthesis.

 *NE ecosystems*

SC.5.11 Space Systems: Earth's Stars and Solar System

SC.5.11.3 Gather and analyze data to communicate understanding of space systems: Earth's stars and solar system.



SC.5.11.3.a **Support an argument** that the gravitational force exerted by Earth on objects is directed down toward Earth's center. Assessment does not include mathematical representation of gravitational force.



SC.5.11.3.b **Support an argument** that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth. Assessment is limited to relative distances, not sizes, of stars. Assessment does not include other factors that affect apparent brightness (such as stellar masses, age, and stage).



SC.5.11.3.c **Represent data in graphical displays** to reveal patterns of daily changes in the length and direction of shadows, length of day and night, and the seasonal appearance of some stars in the night sky. Assessment does not include causes of seasons.

SC.5.13 Earth's Systems

SC.5.13.4 Gather and analyze data to communicate understanding of Earth's systems.



SC.5.13.4.a **Develop a model** using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. Assessment is limited to the interactions of two systems at a time.

 *NE systems*



SC.5.13.4.b **Describe and graph** the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. Assessment is limited to oceans, lakes, rivers, glaciers, groundwater, and polar ice caps but does not include the atmosphere.

 *NE bodies of water*



SC.5.13.4.c **Obtain and combine information** about ways individual communities use science ideas to protect the Earth's resources and environment.

 *NE conservation organizations*



SC.5.13.4.d **Define a simple design problem** that can be solved by applying scientific ideas about the conservation of fresh water on Earth.

 *NE conservation organizations*



SC.5.13.4.e **Define a simple design problem** reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

GRADE 6

The grade 6 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How can energy be transferred from one object or system to another?

Students are expected to know the difference between energy and temperature and begin to develop an understanding of the relationship between force and energy. Students are also expected to apply an understanding of design to the process of energy transfer.

How do the structures of organisms contribute to life's functions?

Students are expected to understand that all organisms are made of cells, that special structures are responsible for particular functions in organisms, and that for many organisms the body is a system of multiple interacting subsystems that form a hierarchy from cells to the body.

How do organisms grow, develop, and reproduce?

Students are expected to explain how select structures, functions, and behaviors of organisms change in predictable ways as they progress from birth to old age.

What factors interact and influence weather and climate?

Students are expected to construct and use models to develop an understanding of the factors that determine weather and climate. A systems approach is also important here, examining the feedbacks between systems as energy from the sun is transferred between systems and circulates through the oceans and atmosphere.

How does water move through Earth's systems?

Students understand how Earth's geosystems operate by modeling the flow of energy and cycling of matter within and among different systems.

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SC.6.4 Energy

SC.6.4.1 Gather, analyze, and communicate evidence of energy.



SC.6.4.1.a Apply scientific principles to **design, construct, and test a device** that either minimizes or maximizes thermal energy transfer. Assessment does not include calculating the total amount of thermal energy transferred.



SC.6.4.1.b **Define the criteria and constraints of a design problem** with sufficient precision to ensure a successful solution, taking into account relevant scientific principle and potential impacts on people and the natural environment that may limit possible solutions.



SC.6.4.1.c **Plan an investigation** to determine the relationships among the energy transferred, type of matter, mass, and change in average kinetic energy of particles as measured by the temperature of the sample. Assessment does not include calculating the total amount of thermal energy transferred.



SC.6.4.1.d **Construct, use, and present arguments** to support the claim that when kinetic energy of an object changes, energy is transferred to or from the object. Assessment does not include calculations of energy.

SC.6.6 Structure and Function and Information Processing

SC.6.6.2 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.



SC.6.6.2.a **Conduct an investigation** to provide evidence that living things are made of cells; either one cell or many varied cells.



SC.6.6.2.b **Develop and use a model** to describe the function of a cell as a whole and ways parts of a cell contribute to the function. Assessment of organelle structure/function relationships is limited to the cell wall and cell membrane. Assessment of the function of the other organelles is limited to their relationship to the whole cell. Assessment does not include the biochemical function of cells or cell parts.



SC.6.6.2.c **Use argument supported by evidence** for how the body is a system of interacting subsystems composed of groups of cells. Assessment does not include the mechanism of one body system independent of others. Assessment is limited to the circulatory, excretory, digestive, respiratory, muscular, and nervous systems.



SC.6.6.2.d **Gather and synthesize information** that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or stored as memories. Assessment does not include mechanisms for the transmission of this information.

SC.6.9 Growth, Development, and Reproduction of Organisms

SC.6.9.3 Gather, analyze, and communicate evidence of the inheritance and variation of traits.



SC.6.9.3.a **Construct an argument** based on evidence for how plant and animal adaptations affect the probability of successful reproduction.

 *monarchs/milkweed; seed dispersal in prairie grasses*



SC.6.9.3.b **Construct a scientific explanation** based on evidence for how environmental and genetic factors influence the growth of organisms. Assessment does not include genetic mechanisms, gene regulation, or biochemical processes.

 *NE plants and animals*



SC.6.9.3.c **Develop and use a model** to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation. Assessment does not include specific changes at the molecular level, mechanisms for protein synthesis, or specific types of mutations.

SC.6.12 Weather and Climate

SC.6.12.4 Gather, analyze, and communicate evidence of factors and interactions that affect weather and climate.



SC.6.12.4.a **Collect data** to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions. Assessment does not include recalling the names of cloud types or weather symbols used on weather maps or the reported diagrams from weather stations.

 *NE weather conditions*



SC.6.12.4.b **Develop and use a model** to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates. Assessment does not include the dynamics of the Coriolis effect.



SC.6.12.4.c **Ask questions** to clarify evidence of the factors that have caused the change in global temperatures over thousands of years.



SC.6.12.4.d **Analyze and interpret data** on weather and climate to forecast future catastrophic events and inform the development of technologies to mitigate their effect.

SC.6.13 Earth's Systems

SC.6.13.5 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter associated with Earth's materials and processes.



SC.6.13.5.a **Develop a model** to describe how the water cycle is driven by the sun's energy and the force of gravity.

A quantitative understanding of the latent heat of vaporization and fusion is not assessed.

 NE systems

GRADE 7

The grade 7 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How does thermal energy affect particles?

Students will be able to provide molecular level descriptions that explain states of matter and changes between states.

Why do different pure substances have different physical and chemical properties and how do those properties determine how substances are used?

Students are expected to understand what occurs at the atomic molecular scales.

What happens when new materials are formed?

Students are expected to provide molecular level descriptions to explain that chemical reactions involve regrouping of atoms to form new substances and that atoms rearrange during chemical reactions.

How do organisms obtain and use energy?

Students are expected to use conceptual and physical models to explain the transfer of energy and cycling of matter as they construct explanations for the role of photosynthesis in cycling matter in ecosystems.

How does matter and energy move through an ecosystem?

Students are expected to construct explanations for the cycling of matter in organisms and the interaction of organisms to obtain matter and energy from an ecosystem to survive and grow.

How do organisms interact with other organisms in the physical environment to obtain matter and energy?

Students are expected to understand that organisms and populations of organisms are dependent on their environmental interactions both with other organisms and with non-living factors.

How do people figure out that Earth and life on Earth have changed over time?

Students are expected to examine geoscience data in order to understand the processes and events in Earth's history.

How do the materials in and on Earth's crust change over time?

Students are expected to understand how Earth's geosystems operate by modeling the flow of energy and the cycling of matter within and among different systems.

How do human activities affect Earth's systems?

Students are expected to understand the ways that human activities impact Earth's other systems

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SC.7.3 Structure and Properties of Matter

SC.7.3.1 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.



SC.7.3.1.a **Develop models** to describe the atomic composition of simple molecules. Assessment does not include valence electrons and bonding energy, discussing the ionic nature of subunits of complex structures, or a complete description of all individual atoms in a complex molecule or extended structure is not required.



SC.7.3.1.b **Gather and make sense of information** to describe how natural materials may undergo chemical reactions to create new synthetic materials and have an impact on society. Assessment is limited to qualitative information.



SC.7.3.1.c **Develop a model** that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

SC.7.5 Chemical Reactions

SC.7.5.2 Gather, analyze, and communicate evidence of chemical reactions.



SC.7.5.2.a **Analyze and interpret data** on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. Assessment is limited to analysis of the following properties: density, melting point, boiling point, solubility, flammability, and odor.



SC.7.5.2.b **Develop and use a model** to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved. Assessment does not include the use of atomic masses, balancing symbolic equations, or intermolecular forces.



SC.7.5.2.c **Undertake a design project** to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes. Assessment is limited to the criteria of amount, time, and temperature of substance in testing the device.



SC.7.5.2.d **Analyze data from tests** to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

SC.7.7 Interdependent Relationships in Ecosystems

SC.7.7.3 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.



SC.7.7.3.a **Construct an explanation** that predicts patterns of interactions among organisms across multiple ecosystems.

 *NE ecosystems*



SC.7.7.3.b **Develop and use a model** to describe how stable ecosystems maintain biodiversity and ecosystem services.

 *NE endangered species and reintroduction of species*



SC.7.7.3.c **Evaluate competing design solutions** using a systematic process to determine how well they meet the criteria and constraints of the problem.



SC.7.7.3.d Apply scientific principles to **design a method for monitoring and increasing positive human impact** on the environment.

SC.7.8 Matter and Energy in Organisms and Ecosystems

SC.7.8.4 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems.



SC.7.8.4.a **Construct a scientific explanation** based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms. Assessment does not include the biochemical mechanisms of photosynthesis.

 *NE food webs*



SC.7.8.4.b **Develop a model** to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as matter moves through an organism. Assessment does not include details of the chemical reactions for photosynthesis or respiration.



SC.7.8.4.c **Analyze and interpret data** to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

 *NE plants and animals*



SC.7.8.4.d **Develop a model** to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. Assessment does not include the use of chemical reactions to describe the processes.

 *NE ecosystems*



SC.7.8.4.e **Construct an argument** supported by evidence that changes to physical or biological components of an ecosystem affect populations.

 *NE ecosystems*

SC.7.13 Earth's Systems

SC.7.13.5 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter associated with Earth's materials and processes.



SC.7.13.5.a **Develop a model** to describe the cycling of Earth's materials and the flow of energy that drives this process. Assessment does not include the identification and naming of minerals.



SC.7.13.5.b **Construct a scientific explanation** based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

 *NE resources*



SC.7.13.5.c **Construct an argument** supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

 *Food security and NE agriculture*

SC.7.14 History of Earth

SC.7.14.6 Gather, analyze, and communicate evidence to explain Earth's history.



SC.7.14.6.a **Construct an explanation** based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

 *NE geographic features*



SC.7.14.6.b **Analyze and interpret data** on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of past plate motions. Paleomagnetic anomalies in oceanic and continental crust are not assessed.



SC.7.14.6.c **Analyze and interpret data** on geologic hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

GRADE 8

The grade 8 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How can one describe physical interactions between objects and within systems of objects?

Students will be expected to apply Newton's Third Law of Motion to relate forces to explain the motion of objects. Students also apply ideas about gravitational, electrical, and magnetic forces to explain a variety of phenomena including beginning ideas about why some materials attract each other while other repel.

How does the energy of an object change related to its mass, speed, and position in a system?

Students understand that objects that are moving have kinetic energy and that objects may also contain stored (potential) energy, depending on their relative positions.

What are the characteristic properties of waves and how can they be used?

Students are expected to describe and predict characteristic properties and behaviors of waves when the waves interact with matter. Students can apply an understanding of waves as a means to send digital information.

What factors cause genes to change and how does that affect the structure and function of organisms?

Students are expected to understand the ways humans can select for specific traits, the role of technology, genetic modification, and the nature of ethical responsibilities related to selective breeding.

How does genetic variation among organisms in a species affect survival and reproduction? How does the environment influence genetic traits in populations over multiple generations?

Students are expected to analyze data from the fossil record to describe evidence of the history of life on Earth and can construct explanations for similarities in organisms. They have a beginning understanding of the role of variation in natural selection and how this leads to speciation.

What is Earth's place in the Universe? What makes up our solar system and how can the motion of Earth explain seasons and eclipses?

Students are expected to examine the Earth's place in relation to the solar system, Milky Way galaxy, and universe. There is a strong emphasis on a systems approach, using models of the solar system to explain astronomical and other observations of the cyclic patterns of eclipses, tides, and seasons

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SC.8.1 Forces and Interactions

SC.8.1.1 Gather, analyze, and communicate evidence of forces and interactions.



SC.8.1.1.a Apply Newton's Third Law to **design a solution** to a problem involving the motion of two colliding objects.
Assessment is limited to vertical or horizontal interactions in one dimension.



SC.8.1.1.b **Develop a model** to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.



SC.8.1.1.c **Plan an investigation** to provide evidence of Newton's Laws that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. Assessment is limited to forces and changes in motion in one-dimension in an inertial reference frame and to change in one variable at a time; does not include use of trigonometry.



SC.8.1.1.d **Ask questions** about data to determine the factors that affect the strength of electrical and magnetic forces. Assessment about questions that require quantitative answers is limited to proportional reasoning and algebraic thinking.



SC.8.1.1.e **Construct and present arguments** using evidence to support the claim that gravitational interactions are attractive and depend on both the mass and distance of interacting objects. Assessment does not include Newton's Law of Gravitation or Kepler's Laws.



SC.8.1.1.f **Conduct an investigation** and evaluate the experimental design to provide evidence that electrical and magnetic fields exist between objects exerting forces on each other even though the objects are not in contact. Assessment is limited to electric and magnetic fields, and limited to qualitative evidence for the existence of fields.

SC.8.2 Waves and Electromagnetic Radiation

SC.8.2.2 Gather, analyze, and communicate evidence of waves and electromagnetic radiation.



SC.8.2.2.a **Use mathematical representations** to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave. Assessment does not include electromagnetic waves and is limited to standard repeating waves.



SC.8.2.2.b **Develop and use a model** to describe that Light and mechanical waves are reflected, absorbed, or transmitted through various materials. Assessment is limited to qualitative applications pertaining to light and mechanical waves.



SC.8.2.2.c **Gather and make sense of information** to support the claim that the structure of analog and digital signals allows for encoding and transmission of information.

SC.8.4 Energy

SC.8.4.3 Gather, analyze, and communicate evidence of energy.



SC.8.4.3.a **Construct and interpret graphical displays of data** to describe the relationships of kinetic energy to the mass and speed of an object.



SC.8.4.3.b **Develop a model** to describe that when the arrangement of objects interacting at a distance changes, then different amounts of potential energy are stored in the system. Assessment is limited to two objects. Assessment is limited to electric, magnetic, and gravitational interactions.

SC.8.9 Heredity: Inheritance and Variation of Traits

SC.8.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.



SC.8.9.4.a **Develop and use a model** to describe why structural changes to genes (mutations) may result in harmful, beneficial, or neutral effects to structure and function of organisms. Assessment does not include specific changes at the molecular level, mechanisms for protein synthesis, or specific types of mutations.



SC.8.9.4.b **Gather and synthesize information** about technologies that have changed the way humans influence inheritance of desired traits in organisms.

 *NE agriculture practices*

SC.8.10 Natural Selection and Adaptations

SC.8.10.5 Gather, analyze, and communicate evidence of natural selection and adaptations.



SC.8.10.5.a **Analyze and interpret data** for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past. Assessment does not include the names of individual species or geological eras in the fossil record.

 *NE Geological History*



SC.8.10.5.b **Apply scientific ideas to construct an explanation** for the anatomical similarities and differences among and between modern and fossil organisms to infer evolutionary relationships.

 *NE Geological History*



SC.8.10.5.c **Construct an explanation** based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.



SC.8.10.5.d **Use mathematical representations** to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time. Assessment does not include Hardy Weinberg calculations.

 *NE plants and animals*

SC.8.11 Space Systems

SC.8.11.6 Gather, analyze, and communicate evidence of the interactions among bodies in space.



SC.8.11.6.a **Develop and use a model** of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.



SC.8.11.6.b **Develop and use a model to describe** the role of gravity in the motions within the galaxy and the solar system. Assessment does not include Kepler's Laws of orbital motion or the apparent retrograde motion of planets as viewed from Earth.



SC.8.11.6.c **Analyze and interpret data** to determine scale properties of objects in the solar system. Assessment does not include recalling facts about properties of the planets and other solar system bodies.

SC.8.14 History of Earth

SC.8.14.7 Gather, analyze, and communicate evidence to explain Earth's history.



SC.8.14.7.a **Construct a scientific explanation** based on evidence found within rock strata, including index fossils, for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history. Assessment does not include recalling the names of specific periods or epochs and events within them.

 *NE Geological History*

HS PHYSICAL SCIENCES

The physical science standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How can one explain the structure and properties of matter?

Students are expected to develop understanding of the substructure of atoms and provide more mechanistic explanations of the properties of substances. Students are able to use the periodic table as a tool to explain and predict the properties of elements.

How do substances combine or change (react) to make new substances? How does one characterize and explain these reactions and make predictions about them?"

Students will be able to explain important biological and geophysical phenomena. Students are also able to apply an understanding of the process of optimization in engineering design to chemical reaction systems.

How can one explain and predict interactions between objects and within systems of objects?

Students are expected to build an understanding of forces and interactions, total momentum of a system of objects is conserved when there is no net force on the system, and predict the gravitational and electrostatic forces between objects. Students are able to apply scientific and engineering ideas to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.

How is energy transferred and conserved?

Students are expected to develop an understanding that energy at both the macroscopic and the atomic scale can be accounted for as either motions of particles or energy associated with the configuration (relative positions) of particles. In some cases, the energy associated with the configuration of particles can be thought of as stored in fields.

How are waves used to transfer energy and send and store information?

Students are expected to apply understanding of how wave properties and the interactions of electromagnetic radiation with matter can transfer information across long distances, store information, and investigate nature on many scales.



SC.HS.1 Forces and Interactions

SC.HS.1.1 Gather, analyze, and communicate evidence of forces and interactions.



SC.HS.1.1.a **Analyze data** to support the claim that Newton's Second Law of Motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration. Assessment is limited to one-dimensional motion and to macroscopic objects moving at non-relativistic speeds.



SC.HS.1.1.b **Use mathematical representations** to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system. Assessment is limited to systems of two macroscopic bodies moving in one dimension.

 *NE roadside and highway safety*



SC.HS.1.1.c **Apply science and engineering ideas to design, evaluate, and refine** a device that minimizes the force on a macroscopic object during a collision. Assessment is limited to qualitative evaluations and/or algebraic manipulations.



SC.HS.1.1.d **Use mathematical representations** of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects. Assessment is limited to systems with two objects.



SC.HS.1.1.e **Plan and conduct an investigation** to provide evidence that an electrical current can produce a magnetic field and that a changing magnetic field can produce an electrical current. Assessment is limited to designing and conducting investigations with provided materials and tools.

 *NE energy producers*

SC.HS.2 Waves and Electromagnetic Radiation

SC.HS.2.2 Gather, analyze, and communicate evidence of the interactions of waves.



SC.HS.2.2.a **Use mathematical representations** to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media. Assessment is limited to algebraic relationships and describing those relationships qualitatively.



SC.HS.2.2.b **Evaluate claims** about the advantages of digital transmission and storage of information.



SC.HS.2.2.c **Evaluate the claims, evidence, and reasoning** behind the idea that electromagnetic radiation can be described either by a wave model or a particle model, and that for some situations one model is more useful than the other. Assessment does not include using quantum theory.



SC.HS.2.2.d **Evaluate the validity and reliability of claims** in published materials of the effects that different frequencies of electromagnetic radiation have when absorbed by matter. Assessment is limited to qualitative descriptions.



SC.HS.2.2.e **Communicate technical information** about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy. Assessments are limited to qualitative information. Assessments do not include band theory.

SC.HS.3 Structure and Properties of Matter

SC.HS.3.3 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.



SC.HS.3.3.a **Use the periodic table as a model** to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms. Assessment is limited to main group elements. Assessment does not include quantitative understanding of ionization energy beyond relative trends.

 *NE Geology*



SC.HS.3.3.b **Plan and conduct an investigation** to gather evidence to compare the structure of substances at the macro scale to infer the strength of electrical forces between particles. Assessment does not include Raoult's law calculations of vapor pressure.



SC.HS.3.3.c **Develop models** to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay. Assessment does not include quantitative calculation of energy released. Assessment is limited to alpha, beta, and gamma radioactive decays.

 *NE Geologic history and nuclear power production*



SC.HS.3.3.d **Communicate scientific and technical information** about why the molecular-level structure is important in the functioning of designed materials. Assessment is limited to provided molecular structures of specific designed materials.

 *NE manufacturers*

SC.HS.4 Energy

SC.HS.4.4 Gather, analyze, and communicate evidence of the interactions of energy.



SC.HS.4.4.a **Create a computational model** to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known. Assessment is limited to basic algebraic expressions or computations; to systems of two or three components; and to thermal energy, kinetic energy, and/or the energies in gravitational, magnetic, or electric fields.



SC.HS.4.4.b **Develop and use models** to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motion of particles (objects) and energy associated with the relative positions of particles (objects).



SC.HS.4.4.c **Design, build, and refine a device** that works within given constraints to convert one form of energy into another form of energy. Assessment for quantitative evaluations is limited to total output for a given input. Assessment is limited to devices constructed with materials provided to students.

 *NE energy producers*



SC.HS.4.4.d **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.



SC.HS.4.4.e **Plan and conduct an investigation** to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics). Assessment is limited to investigations based on materials and tools provided to students.



SC.HS.4.4.f **Develop and use a model** of two objects interacting through electrical or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction. Assessment is limited to systems containing two objects.

SC.HS.5 Chemical Reactions

SC.HS.5.5 Gather, analyze, and communicate evidence of chemical reactions.



SC.HS.5.5.a **Construct and revise an explanation** for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties. Assessment is limited to chemical reactions involving main group elements and combustion reactions.

 *NE energy and ethanol production*



SC.HS.5.5.b **Develop a model** to illustrate that the release or absorption of energy from a chemical reaction system depends on the changes in total bond energy. Assessment does not include calculating the total bond energy changes during a chemical reaction from the bond energies of reactants and products.

 *NE energy and ethanol production*



SC.HS.5.5.c **Apply scientific principles** and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs. Assessment is limited to simple reactions in which there are only two reactants; evidence from temperature, concentration, and rate data; and qualitative relationships between rate and temperature.

 *NE energy and ethanol production*



SC.HS.5.5.d **Refine the design** of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium. Assessment is limited to specifying the change in only one variable at a time. Assessment does not include calculating equilibrium constants and concentrations.

 *NE energy and ethanol production*



SC.HS.5.5.e **Design a solution** to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



SC.HS.5.5.f **Use mathematical representations** to support the claim that atoms, and therefore mass, are conserved during a chemical reaction. Assessment does not include complex chemical reactions.

 *NE energy and ethanol production*

HS LIFE SCIENCES

The life science standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How do the structures of organisms enable life's functions?

Students are expected to investigate explanations for the structure and function of cells as the basic units of life, the hierarchical systems of organisms, and the role of specialized cells for maintenance and growth. Students will demonstrate understanding of how systems of cells function together to support the life processes.

How are the characteristics from one generation related to the previous generation?

High school students demonstrate understanding of the relationship of DNA and chromosomes in the processes of cellular division that pass traits from one generation to the next. Students can determine why individuals of the same species vary in how they look, function, and behave. Ethical issues related to genetic modification of organisms and the nature of science can be described.

How do organisms obtain and use energy they need to live and grow? How do matter and energy move through ecosystems?

Students will be expected to develop understanding of organisms' interactions with each other and their physical environment, how organisms obtain resources, change the environment, and how

these changes affect both organisms and ecosystems. Students will use mathematical concepts to construct explanations for the role of energy in the cycling of matter in organisms and ecosystems.

How do organisms interact with the living and non-living environment to obtain matter and energy?

Students will be expected to investigate the role of biodiversity in ecosystems and the role of animal behavior on survival of individuals and species. Students will develop increased understanding of interactions among organisms and how those interactions influence the dynamics of ecosystems.

How can there be so many similarities among organisms yet so many different plants, animals, and microorganisms? How does biodiversity affect humans?

Students will be expected to demonstrate understanding of the factors causing natural selection and the process of evolution of species over time. They demonstrate understanding of how multiple lines of evidence contribute to the strength of scientific theories of natural selection and evolution

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SC.HS.6 Structure and Function

SC.HS.6.1 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.



SC.HS.6.1.a **Construct an explanation** based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. Assessment does not include identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis.

 NE agricultural practices



SC.HS.6.1.b **Develop and use a model** to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. Assessment does not include interactions and functions at the molecular or chemical reaction level.



SC.HS.6.1.c **Plan and conduct an investigation** to provide evidence that feedback mechanisms maintain homeostasis. Assessment does not include the cellular processes involved in the feedback mechanism.

 NE agricultural practices



SC.HS.6.1.d **Use a model** to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. Assessment does not include specific gene control mechanisms or rote memorization of the steps of mitosis.

SC.HS.7 Interdependent Relationships in Ecosystems

SC.HS.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.



SC.HS.7.2.a **Use mathematical and/or computational representations to support explanations** of factors that affect carrying capacity of ecosystems at different scales. Assessment does not include deriving mathematical equations to make comparisons.



SC.HS.7.2.b **Use mathematical representations** to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. Assessment is limited to provided data.



SC.HS.7.2.c **Evaluate the claims, evidence, and reasoning** that the interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

 *NE river systems and ecosystems*



SC.HS.7.2.d **Evaluate the evidence** for how group behavior has evolved because membership can increase the chances of survival for individuals and their genetic relatives.



SC.HS.7.2.e **Design, evaluate, and refine a solution** for increasing the positive impacts of human activities on the environment and biodiversity.

 *NE native species, conservation organizations, agriculture practices*



SC.HS.7.2.f **Use a computer simulation** to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem. Assessment is limited to testing solutions for a proposed problem related to threatened or endangered species, or to genetic variation of organisms for multiple species.

SC.HS.8 Matter and Energy in Organisms and Ecosystems

SC.HS.8.3 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems.



SC.HS.8.3.a **Use a model** to illustrate how photosynthesis transforms light energy into stored chemical energy. Assessment does not include specific biochemical steps.



SC.HS.8.3.b **Construct and revise an explanation** based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other molecules to form the four basic macromolecules. Assessment does not include the details of the specific chemical reactions or identification of macromolecules.



SC.HS.8.3.c **Use a model** to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules are broken and bonds in new compounds are formed resulting in a net transfer of energy. Assessment should not include identification of the steps or specific processes involved in cellular respiration.



SC.HS.8.3.d **Construct and revise an explanation** based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. Assessment does not include the specific chemical processes of either aerobic or anaerobic respiration.

 *NE ethanol production*



SC.HS.8.3.e **Use mathematical representations** to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy.

 *NE agricultural practices*



SC.HS.8.3.f **Develop a model** to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. Assessment does not include the specific chemical steps of photosynthesis and respiration.

SC.HS.9 Heredity: Inheritance and Variation of Traits

SC.HS.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.



SC.HS.9.4.a **Develop and use a model** to explain the relationships between the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring. Assessment does not include the phases of meiosis or the molecular mechanism of specific steps in the process.

 NE agricultural practices



SC.HS.9.4.b **Make and defend a claim** based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. Assessment does not include the phases of meiosis or the molecular mechanism of specific steps in the process.

 NE plants and animals



SC.HS.9.4.c **Apply concepts of statistics and probability** to explain the variation and distribution of expressed traits in a population. Assessment does not include Hardy-Weinberg calculations.

 NE plants and animals

SC.HS.10 Biological Evolution

SC.HS.10.5 Gather, analyze, and communicate evidence of biological evolution.



SC.HS.10.5.a **Communicate scientific** information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

 NE fossil record



SC.HS.10.5.b **Construct an explanation** based on evidence that natural selection primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. Assessment does not include other mechanisms of evolution, such as genetic drift, gene flow through migration, and co-evolution.

 NE plants and animals



SC.HS.10.5.c **Apply concepts of statistics and probability** to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. Assessment is limited to basic statistical and graphical analysis. Assessment does not include allele frequency calculations.

 NE plants and animals



SC.HS.10.5.d **Construct an explanation** based on evidence for how natural selection leads to adaptation of populations.



SC.HS.10.5.e **Evaluate the evidence** supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.

 NE plants and animals

HS EARTH AND SPACE SCIENCES

The earth and space science standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interests and current topics that may include but are not limited to:

What is the universe and what goes on in stars? What are the predictable patterns caused by Earth's movement in the solar system?

Students examine the processes governing the formation, evolution, and workings of the solar system and universe in order to understand how matter in the universe formed and how short-term changes in the behavior of the sun directly affect humans. Engineering and technology play a large role here in obtaining and analyzing data that support theories of the formation of the solar system and universe.

How do people reconstruct and date events in Earth's planetary history? Why do the continents move?

Students can construct explanations for the scales of time over which Earth processes operate. An important aspect of the earth and space sciences involves making inferences about events in Earth's history based on a data record that is increasingly incomplete the farther one goes back in time.

How do the properties and movements of water shape Earth's surface and affect its systems?

Students develop models and explanations for the ways that

feedbacks between different Earth systems control the appearance of Earth's surface. Central to this is the tension between internal systems, which are largely responsible for creating and at Earth's surface and the sun-driven surface systems that tear down land through weathering and erosion. Students understand the role water plays in affecting weather and understand chemical cycles in Earth's systems.

What regulates weather and climate?

Students understand the system interactions that control weather and climate. Students can understand the analysis and interpretation of different kinds of geoscience data allow student to construct explanations for the many factors that drive climate change over a wide range of timescales.

How do humans depend on Earth's resources? How do people model and predict the effects of human activities?

Students understand the complex and significant interdependencies between humans and the rest of Earth's systems through the impacts of natural hazards, our dependencies on natural resources, and the environmental impacts of human activities



SC.HS.11 Space Systems

SC.HS.11.1. Gather, analyze, and communicate evidence to defend that the universe changes over time.



SC.HS.11.1.a **Use a model** based on evidence to illustrate how the stages of stars and the role of nuclear fusion in a star's core releases energy that reaches Earth in the form of radiation. Assessment does not include details of the atomic and sub-atomic processes involved with the sun's nuclear fusion.



SC.HS.11.1.b **Construct an explanation** of the Big Bang theory based on astronomical evidence of light spectra, motion of distant galaxies, and composition of matter in the universe.



SC.HS.11.1.c **Communicate scientific ideas** about the way stars, throughout their stellar stages, produce elements. Details of the many different nucleosynthesis pathways for stars of differing masses are not assessed.



SC.HS.11.1.d **Use mathematical or computational representations** to predict the motion of orbiting objects in the solar system. Mathematical representations for the gravitational attraction of bodies and Kepler's Laws of orbital motions should not deal with more than two bodies, nor involve calculus.

SC.HS.12 Weather and Climate

SC.HS.12.2 Gather, analyze, and communicate evidence to support that Earth's climate and weather are influenced by energy flow through Earth systems.



SC.HS.12.2.a **Construct an explanation based on evidence** for how the sun's energy moves among Earth's systems.



SC.HS.12.2.b **Use a model** to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate. Assessment of the results of changes in climate is limited to changes in surface temperatures, precipitation patterns, glacial ice volumes, sea levels, and biosphere distribution.



SC.HS.12.2.c **Analyze geoscience data** and the results from global climate models to make an evidence-based forecast of the current rate and scale of global or regional climate changes.

 *NE data*



SC.HS.12.2.d **Evaluate the validity and reliability** of past and present models of Earth conditions to make projections of future climate trends and their impacts.

SC.HS.13 Earth's Systems

SC.HS.13.3 Gather, analyze, and communicate evidence to defend the position that Earth's systems are interconnected and impact one another.



SC.HS.13.3.a **Analyze geoscience data** to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.

 *NE geologic time scale and fossil record*



SC.HS.13.3.b **Develop a model** based on evidence of Earth's interior to describe the cycling of matter.



SC.HS.13.3.c **Construct an argument based on evidence** to explain the multiple processes that cause Earth's plates to move.



SC.HS.13.3.d **Plan and conduct an investigation** of the properties of water and their effects on Earth materials, surface processes, and groundwater systems.

 *NE water systems*



SC.HS.13.3.e **Develop a quantitative model** to describe the cycling of carbon and other nutrients among the hydrosphere, atmosphere, geosphere, and biosphere, today and in the geological past.

SC.HS.14 History of Earth

SC.HS.14.4 Gather, analyze, and communicate evidence to interpret Earth's history.



SC.HS.14.4.a **Evaluate evidence** of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the differences in age, structure, and composition of crustal and sedimentary rocks.



SC.HS.14.4.b **Apply scientific reasoning** and evidence from ancient Earth materials, meteorites, and other planetary surfaces to reconstruct Earth's formation and early history.



SC.HS.14.4.c **Develop a model** to illustrate how Earth's internal and surface processes operate over time to form, modify, and recycle continental and ocean floor features. Assessment does not include memorization of the details of the formation of specific geographic

features of Earth's surface.

 *NE water systems and surface processes*



SC.HS.14.4.d **Construct an argument** based on evidence to validate coevolution of Earth's systems and life on Earth. Assessment does not include a comprehensive understanding of the mechanisms of how the biosphere interacts with all of Earth's other systems.

SC.HS.15 Sustainability

SC.HS.15.5 Gather, analyze, and communicate evidence to describe the interactions between society, environment, and economy.



SC.HS.15.5.a **Construct an explanation based on evidence** for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

 *NE historical events*



SC.HS.15.5.b **Evaluate competing design solutions** for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.



SC.HS.15.5.c **Use a computational simulation** to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity. Assessment is limited to using provided multi-parameter programs or constructing simplified spreadsheet calculations.

 *NE resource management*



SC.HS.15.5.d **Evaluate or refine a technological solution** that increases positive impacts of human activities on natural systems.



SC.HS.15.5.e **Evaluate a solution to a complex real-world problem** based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



SC.HS.15.5.f **Use a computational representation** to illustrate the relationships among Earth systems and the degree to which those relationships are being modified due to human activity. Assessment does not include running computational representations but is limited to using the published results of scientific computational models.

PLUS STANDARDS (OPTIONAL)

The High School Plus (HSP) standards represent advanced science topics designed to enhance the rigor of general science curricula or supplement additional advanced science courses. The standards were developed using postsecondary syllabi from entry level science courses for science majors (e.g. UNL LIFE 120, CHEM 109). Introducing the content to high school students will scaffold their learning providing a bridge between high school science coursework and postsecondary level coursework.

PHYSICS

SC.HSP.1 Forces, Interactions, and Motion

SC.HSP.1.1 Gather, analyze, and communicate evidence of forces, interactions, and motion.



SC.HSP.1.1.a **Generate and interpret mathematical and graphical representations** to describe the relationships between position, velocity, acceleration and time. Examples of data could include tables or graphs of position or velocity as a function of time for objects subject to no acceleration and objects undergoing a constant acceleration, including projectile motion, free fall, and circular motion. Examples should also include both average and instantaneous velocities. Assessment is limited to one and two-dimensional motion and to objects moving at non-relativistic speeds.



SC.HSP.1.1.b **Use mathematical and pictorial models** as applied to Newton's second law of motion describing the relationship among the net force on a macroscopic object, its mass, and its acceleration. Examples include drawing and using free body diagrams to analyze the net force on the object and the resulting motion; vectors including decomposition and recombination, addition and subtraction. Assessment is limited to two-dimensional motion.



SC.HSP.1.1.c **Use mathematical representations** of momentum to predict the outcome of a collision. Emphasis is on the quantitative conservation of momentum in interactions and the qualitative meaning of this principle. **Assessment is limited to quantitative analysis of systems of two macroscopic bodies moving in one-dimension and qualitative analysis of multiple macroscopic bodies moving in two or three-dimensions.**



SC.HSP.1.1.d **Apply scientific and engineering ideas** to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision. Examples of evaluation and refinement could include determining the success of the device at protecting an object from damage and modifying the design to improve it by applying the impulse-momentum theorem. Examples of a device could include a football helmet or an airbag. **Assessment is limited to qualitative evaluations and/or algebraic manipulations.**



SC.HSP.1.1.e **Use mathematical representations** of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects. Emphasis is on both quantitative and conceptual descriptions of forces from gravitational and electric sources. **Assessment can be expanded to systems with multiple objects.**

SC.HSP.2 Waves, Electromagnetic Radiation, and Optics

SC.HSP.2.2 Gather, analyze, and communicate evidence of the interactions of waves and optics.



SC.HSP.2.2.a **Use mathematical representations** to describe the relationships among the frequency, wavelength, and speed of waves traveling in various media. Examples of data could include electromagnetic radiation traveling in a vacuum and glass, sound waves traveling through air and water, and seismic waves traveling through the Earth. Examples also include descriptive changes in observed frequency based on relative motion of observer or source (Doppler effect). **Assessment is limited to algebraic relationships and describing those relationships qualitatively.**



SC.P.2.2.b **Develop and use models** to predict interactions of longitudinal and transverse waves in various media. Examples could include P, S and Surface seismic waves, water waves, and waves on a spring. Emphasis is on structure and function of waves.



SC.HSP.2.2.c **Develop and use models** to describe the behavior of light at the boundary of various media. Emphasis is on both geometric (ray diagrams) and algebraic models (mirror and thin lens equation, Snell's Law).



SC.HSP.2.2.d **Evaluate the claims, evidence, and reasoning** behind the idea that electromagnetic radiation can be described either by a wave model or a particle model, and that for some situations one model is more useful than

the other. Emphasis is on how the experimental evidence supports the claim and how a theory is generally modified in light of new evidence. Examples of a phenomenon could include resonance, interference, diffraction, photoelectric effect and the idea that photons associated with different frequencies of light have different energies. **Assessment includes qualitative and quantitative models of light.**



SC.HSP.2.2.e **Use evidence to support explanations** for causes of emission and absorption spectra of electromagnetic radiation. Emphasis is on the idea that photons associated with different frequencies of light have different energies. This could include the displacement and broadening of spectral lines (redshift and blueshift). Examples could include different elements absorb or emit specific frequencies of light. Assessment is limited to qualitative descriptions.



SC.HSP.2.2.f **Communicate technical information** about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy. Examples could include solar cells capturing light and converting it to electricity; medical imaging; communications technology; lasers. **Assessments are limited to qualitative information. Assessments do not include band theory.**

SC.HSP.4 Energy: Physics

SC.HSP.4.3 Gather, analyze, and communicate evidence of the interactions of energy.



SC.HSP.4.3.a **Create a computational model** to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known. Emphasis is on explaining the meaning of mathematical expressions used in the model including the Work-Energy theorem. **Assessment is limited to basic algebraic expressions or computations; to systems of two or three components; and to thermal energy, kinetic energy, and/or the energies in gravitational, magnetic, or electric fields.**



SC.HSP.4.3.b **Plan and conduct an investigation** to rate the power and efficiency used in performing work on a system. Emphasis is on the quantitative determination of power in interactions. Examples could include use of pulleys and electric motors.



SC.HSP.4.3.c **Design, build, and refine a device** that works within given constraints to convert one form of energy into another form of energy. Emphasis is on both qualitative and quantitative evaluations of devices. Examples of devices could include Rube Goldberg devices, wind turbines, solar cells, solar ovens, generators, heat engines and heat pumps. Examples of constraints could include use of renewable energy forms and efficiency. **Assessment for quantitative evaluations is limited to total output for a given input. Assessment is limited to devices constructed with materials provided to students.**



SC.HSP.4.3.d **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. Examples could include analysis of renewable energy systems for electricity generation and the effect of autonomous electric cars on the economy, society and the environment.



SC.HSP.4.3.e **Plan and conduct an investigation** to provide evidence for the transfer of thermal energy within a system based on the Laws of Thermodynamics. Emphasis is on analyzing data from student investigations and using mathematical thinking to describe the energy changes both quantitatively and conceptually, such as changes in entropy of a system. Examples of investigations could include mixing liquids at different initial temperatures or adding objects at different temperatures to water, changes from kinetic to thermal energy, and heat engines and heat pumps. **Assessment is limited to investigations based on materials and tools provided to students.**



SC.HSP.4.3.f **Develop and use a model** of two objects interacting through gravitational, electric, or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction. Examples of models could include drawings, diagrams, and texts, such as drawings of what happens when two charges of opposite polarity are near each other. **Assessment is limited to systems containing two objects.**

SC.HSP.16 Electricity and Magnetism

SC.HSP.16.4 Gather, analyze, and communicate evidence of electricity and magnetism.



SC.HSP.16.4.a **Use mathematical representations** of field forces to describe and predict forces at a distance between objects. Emphasis is on both quantitative and conceptual descriptions of forces from gravitational and electric sources. **Assessment can be expanded to systems with multiple objects.**



SC.HSP.16.4.b **Use models** to visualize and describe gravitational, magnetic and electrical fields and predict resulting forces on nearby objects. Examples of fields include point charges, charged parallel plates/rings/spheres, and bar magnets. Also could include electromagnetic forces, such as the magnetic force acting on a moving charge. **Assessment is limited to descriptive analysis of the fields and the forces they produce.**



SC.HSP.16.4.c **Use mathematical representations** to provide evidence that describes and predicts relationships between power, current, voltage, and resistance. Emphasis is on insulators and conductors accounting for Ohm's Law, total resistance for combinations of resistors and $P=IV$.



SC.HSP.16.4.d **Evaluate competing design solutions** for construction and use of electrical consumer products accounting for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. Examples could include efficiency of light bulbs (visible intensity vs. power) and thermal energy limits of wire.



SC.HSP.16.4.e **Obtain and communicate technical information** about how some technological devices use alternating current and others use direct current. Examples could include why public utilities use AC while many devices use DC and energy loss in transmission of electricity.



SC.HSP.16.4.f **Design a solution** to a problem using the fact that an electric current can produce a magnetic field and/or that a changing magnetic field can produce an electric current. Emphasis is on both quantitative and conceptual descriptions of electric and magnetic fields. Examples include designing a generator, motor or transformer. **Assessment is limited to systems with two objects.**



SC.HSP.16.4.g **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. Examples could include analysis of renewable energy systems for electricity generation and the effect of autonomous electric cars on the economy, society and the environment.

CHEMISTRY

SC.HSP.3 Structure and Properties of Matter

SC.HSP.3.1 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.



SC.HSP.3.1.a **Use the periodic table as a model** to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms. Assessment does not include quantitative understanding of ionization energy beyond relative trends.



SC.HSP.3.1.b **Plan and conduct an investigation** to gather evidence to compare the structure of substances at the macro scale to infer the strength of electrical forces between particles. Examples of intramolecular forces include bond type, polarity of bonds and, resonance structures. Examples of intermolecular forces include hydrogen bonds, dipole-dipole. **Assessment does not include Raoult's law calculations of vapor pressure.**



SC.HSP.3.1.c **Develop and use models** to predict and explain forces that are in and between molecules. Examples of intramolecular forces include bond type, polarity of bonds and, resonance structures. Examples of intermolecular forces include hydrogen bonds, dipole-dipole.



SC.HSP.3.3.d **Evaluate a solution** to a complex, real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts. Examples could include the effects of concentration of solutions on the freezing/boiling point (melting of ice on roadways), aspartame and caffeine in beverages, fluoride in drinking water.



SC.HSP.3.3.e **Develop models** to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay. **Assessment is limited to alpha, beta, and gamma radioactive decays.**



SC.HSP.3.3.f **Develop and use models** to describe and predict mechanisms of the quantum mechanical model of the atom. Examples of representation include Aufbau Diagram, Hund's Rule, Pauli Exclusion, and orbital shapes, Hybridization of orbitals, and electron configuration. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.3.3.g **Evaluate the evidence** supporting claims about how atoms absorb and emit energy in the form of electromagnetic radiation. Examples include using mathematical relationships to demonstrate the relationship between observed light spectrum, wavelength of light and emission spectrum. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.3.3.h **Use mathematical representations** to quantify matter through the analysis of patterns in chemical compounds at different scales. Emphasis is on the mole concept, empirical formula, molecular formula, percent composition, and law of constant composition. (This is an upper-level course indicator. It is not recommended for all students.)

SC.HSP.4 Energy: Chemistry

SC.HSP.4.2 Gather, analyze, and communicate evidence of the interactions of energy.



SC.HSP.4.2.a **Use statistical and mathematical techniques** to describe qualitative and quantitative thermodynamic relationships. Thermodynamic relationships may include: Enthalpy, Hess's Law, Heats of Formation. Examples of data displays or graphs could include energy diagrams to communicate bond energies of products or reactants. Lab investigations may include calorimetry. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.4.2.b **Plan and conduct an investigation** to gather evidence of how the Kinetic Molecular Theory and gas laws are related. Examples include Dalton's Law of particle pressures, Graham's Law of Diffusion and Effusion, and empirical gas laws. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.4.2.c **Analyze and interpret data** to explain changes in energy within a system and/or energy flows in and out of

a system. Emphasis is on the use of mathematical expressions to describe the change in energy within the system. Investigations could include electrochemistry (electrolysis). (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.4.2.d **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. Examples could include alternative energies, carbon footprint, and crude oil refining process.

SC.HSP.5 Chemical Reactions

SC.HSP.5.3 Gather, analyze, and communicate evidence of chemical reactions.



SC.HSP.5.3.a **Plan and conduct an investigation** to generate evidence that answers scientific questions related to changes in solution chemistry. Examples include titrations, solubility, and Le Chatelier's Principle. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.b **Use a model** to identify electron transfer and balance a redox reaction. Emphasis would be on using half reaction method for balancing equations and understanding electron transfer. Examples include electrochemical cells and electroplating. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.c **Use mathematical and/or computational representations** to predict and explain relationships within chemical systems. Examples include stoichiometric calculations, gas stoichiometry, limiting reactant, empirical formula/molecular formula calculations, % comp % yield. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.d **Use mathematical representations** to analyze the proportion and quantity of particles in solution. Emphasis is on molarity and developing net ionic equations. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.e **Plan and conduct an investigation** to predict the outcome of a chemical reaction based on patterns of chemical properties. Examples of reaction types could include single replacement, double replacement, etc. Examples of patterns could include the use of solubility rules, activity series. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HS.5.3.f **Construct and revise an explanation** for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.

BIOLOGY

SC.HSP.6 Structure and Function

SC.HSP.6.1 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.



SC.HSP.6.1.a **Construct an explanation** based on evidence for how the sequence of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.



SC.HSP.6.1.b **Develop and use a model** to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. Emphasis is on functions at the organism system level such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of blood within the circulatory system. **Assessment does not include interactions and functions at the molecular level.**



SC.HSP.6.1.c **Plan and conduct an investigation** to provide evidence that feedback mechanisms maintain homeostasis. Examples of investigations could include heart rate response to exercise, stomate response to moisture and temperature, and root development in response to water levels.



SC.HSP.6.1.d **Use a model** to illustrate the role of cells in producing signals which maintain cellular function within organisms. Emphasis is on conceptual understanding of the types of cell signals, signal reception, signal transduction, and types of cellular responses.



SC.HSP.6.1.e **Construct an explanation** based on evidence that plants have structures that function to support survival, growth, behavior, and reproduction. Emphasis is on plant structure, growth, and development, nutrient uptake and transport, plant reproduction, and plant responses to internal and external stimuli.



SC.HSP.6.1.f **Construct an explanation** based on evidence that animals have structures that function to support survival, growth, behavior, and reproduction. Emphasis is on the basic principles of animal form and functions. Examples of basic principles could include animal nutrition, circulation, gas exchange, immunity, osmoregulation and excretion, hormonal and endocrine control, reproduction, development, neural control systems, and animal behavior.



SC.HSP.6.1.g **Use a model** to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

SC.HSP.7 Interdependent Relationships in Ecosystems

SC.HSP.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.



SC.HSP.7.2.a **Use mathematical and/or computational representations** to support explanations of factors that affect carrying capacity of ecosystems at different scales. Emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets. **Assessment does not include deriving mathematical equations to make comparisons.**



SC.HSP.7.2.b **Use mathematical representations** to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. Examples of mathematical representations include finding the average, determining trends, and using graphical comparisons of multiple sets of data. Assessment is limited to provided data.



SC.HSP.7.2.c **Evaluate the claims, evidence, and reasoning** related to the principle that complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem. Examples of changes in ecosystem conditions could include modest biological or physical changes, such as moderate hunting or a seasonal flood; and extreme changes, such as volcanic eruption or sea level rise.



SC.HSP.7.2.d **Design, evaluate, and refine a solution** for increasing the positive impacts of human activities on the

environment and biodiversity. Examples of human activities can include habitat development and restoration, supporting native pollinators, reducing consumption, rotating crops, using integrated pest management.



SC.HSP.7.2.e Create or revise a solution to mitigate the impacts of human activity on biodiversity. Emphasis is on testing solutions for a proposed problem related to threatened or endangered species, or to genetic variation of organisms for multiple species.



SC.HSP.7.2.f Evaluate evidence for the role of behavior on individual and species' chances to survive and reproduce. Emphasis is on: (1) distinguishing between group and individual behavior, (2) identifying evidence supporting the outcomes of group behavior, and (3) developing logical and reasonable arguments based on evidence. Examples of behaviors could include fixed action patterns, imprinting, kinesis, taxis, hibernation, estivation, habituation, spatial learning, associative learning, cognition, foraging behavior, agonistic behavior, altruism, social learning, flocking, schooling, herding, and cooperative behaviors such as hunting, migrating, and swarming.

SC.HSP.8 Matter and Energy in Organisms and Ecosystems

SC.HSP.8.3 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems.



SC.HSP.8.3.a Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy. Emphasis is on illustrating inputs and outputs of matter and the transfer and transformation of energy in photosynthesis by plants and other photosynthesizing organisms. Examples of models could include diagrams, chemical equations, and conceptual models.



SC.HSP.8.3.b Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other molecules to form amino acids and/or other large carbon-based molecules. Emphasis is on using evidence from models and simulations to support explanations.



SC.HSP.8.3.c Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy. Emphasis is on the conceptual understanding of the steps or specific processes involved in cellular respiration.



SC.HSP.8.3.d Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. Emphasis is on conceptual understanding of the role of metabolism in different environments.



SC.HSP.8.3.e Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. Emphasis is on using a mathematical model of stored energy in biomass to describe the transfer of energy from one trophic level to another and that matter and energy are conserved as matter cycles and energy flows through ecosystems. Emphasis is on atoms and molecules such as carbon, oxygen, hydrogen and nitrogen being conserved as they move through an ecosystem. **Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy.**



SC.HSP.8.3.f Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. Examples of models could include simulations and mathematical models.



SC.HSP.8.3.g Use models to illustrate how atomic structure and bonding impact the properties of water and their influence on biological systems. Emphasis is on atomic structure, types of chemical bonds, and properties of water and how those properties influence organisms and ecosystems.



SC.HSP.8.3.h Construct an explanation based on evidence for how ATP powers cellular work and for how enzymes affect the rate of and the amount of energy needed for metabolic reactions. Emphasis is on the structure of ATP and how ATP is used to power cellular work by coupling exergonic and endergonic reactions. Emphasis is on how enzymes speed up and/or lower the activation energy needed for metabolic reactions and how the regulation of enzyme activity helps control metabolism.

SC.HSP.9 Inheritance and Variation of Traits

SC.HSP.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.



SC.HSP.9.4.a Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.



SC.HSP.9.4.b **Make and defend a claim** based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. Emphasis is on using data to support arguments for the way variation occurs.



SC.HSP.9.4.c **Apply concepts of statistics and probability** to explain the variation and distribution of expressed traits in a population. Emphasis is on the use of mathematics to describe the probability of traits as it relates to genetic and environmental factors in the expression of traits [examples could include Hardy-Weinberg calculations and chi-square calculations].



SC.HSP.9.4.d **Evaluate evidence** supporting claims that gene regulation can explain the variation and distribution of expressed traits in a population. Emphasis is on the differences in gene expression of multi-cellular organisms, leading to different cell types within organisms and the distribution of traits in a population.



SC.HSP.9.4.e **Construct an explanation** based on evidence for the role of biotechnology in the research and understanding of biological systems. Emphasis is on the evolution of genomes, how biotechnology allows researchers to study the sequence, expression, and function of genes, and the practical applications of biotechnology.

SC.HSP.10 Biological Evolution

SC.HSP.10.5 Gather, analyze, and communicate evidence of biological evolution.



SC.HSP.10.5.a **Communicate scientific information** that common ancestry and biological evolution are supported by multiple lines of empirical evidence. Emphasis is on a conceptual understanding of the role each line of evidence has relating to common ancestry and biological evolution. Examples of evidence could include similarities in DNA sequences, anatomical structures, and order of appearance of structures in embryological development.



SC.HSP.10.5.b **Construct an explanation** based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. Emphasis is on using evidence to explain the influence each of the four factors has on number of organisms, behaviors, morphology, or physiology in terms of ability to compete for limited resources and subsequent survival of individuals and adaptation of species. Examples of evidence could include mathematical models such as simple distribution graphs and proportional reasoning.



SC.HSP.10.5.c **Apply concepts of statistics and probability** to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. Emphasis is on analyzing shifts in numerical distribution of traits and using these shifts as evidence to support explanations. Examples of basic statistical and graphical analysis could include allele frequency calculations.



SC.HSP.10.5.d **Construct an explanation** based on evidence for how natural selection leads to adaptation of populations. Emphasis is on using data to provide evidence for how specific biotic and abiotic differences in ecosystems (such as ranges of seasonal temperature, long-term climate change, acidity, light, geographic barriers, or evolution of other organisms) contribute to a change in gene frequency over time, leading to adaptation of populations.



SC.HSP.10.5.e **Evaluate evidence** supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. Emphasis is on determining cause and effect relationships for how changes to the environment such as deforestation, fishing, application of fertilizers, drought, flood, and the rate of change of the environment affect distribution or disappearance of traits in species.



SC.HSP.10.5.f **Develop and use models** to illustrate patterns in the evolutionary history of biological diversity. Emphasis is on how the structure and function of bacteria, archaea, protists, fungi, plants, and animals are used in are related in the tree of life.

ANATOMY AND PHYSIOLOGY

SC.HSP.6 Structure and Function: Anatomy & Physiology

SC.HSP.6.2 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *integumentary system*.



SC.HSP.6.2.a **Plan and conduct an investigation** to identify patterns of organization in the integumentary system. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.2.b **Ask questions** to clarify the role of various structures in integumentary system function.



SC.HSP.6.2.c **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the integumentary system.



SC.HSP.6.2.d **Plan and conduct an investigation to gather evidence** that feedback mechanisms in the integumentary system help maintain homeostasis.



SC.HSP.6.2.e **Engage in arguments from evidence** for the role of cell division in integumentary system dysfunction.

SC.HSP.6.3 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *skeletal system*.



SC.HSP.6.3.a **Plan and conduct an investigation** to identify patterns of organization in the skeletal system. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.3.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the skeletal system.



SC.HSP.6.3.c **Obtain, evaluate, and communicate information** that feedback mechanisms in the skeletal system help maintain homeostasis.



SC.HSP.6.3.d **Develop and use a model** to explain the order of events necessary for bone formation.



SC.HSP.6.3.e **Engage in arguments from evidence** to support claims about the causes of dysfunction in the skeletal system. Evidence could include data obtained from case studies.

SC.HSP.6.4 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *muscular system*.



SC.HSP.6.4.a **Plan and conduct an investigation** to identify patterns of organization in the muscular system. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.4.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the muscular system.



SC.HSP.6.4.c **Engage in arguments from evidence** that muscle contraction is the result of biochemical reactions.



SC.HSP.6.4.d **Obtain, evaluate, and communicate** that feedback mechanisms in the muscular system help maintain homeostasis.



SC.HSP.6.4.e **Engage in arguments from evidence** to support claims about the causes of dysfunction in the muscular system. Evidence could include data obtained from case studies.

SC.HSP.6.5 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the nervous system.



SC.HSP.6.5.a **Plan and conduct an investigation** to identify patterns of organization in the nervous system. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.5.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the nervous system.



SC.HSP.6.5.c **Engage in arguments from evidence** that production of a nerve impulse is the result of biochemical reactions.



SC.HSP.6.5.d **Obtain, evaluate, and communicate evidence** that feedback mechanisms in the nervous system help maintain homeostasis.



SC.HSP.6.5.e **Engage in arguments from evidence** to support claims about the causes of dysfunction in the nervous system. Evidence could include data obtained from case studies.

SC.HSP.6.6 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the cardiovascular/respiratory systems.



SC.HSP.6.6.a **Plan and conduct an investigation** to identify patterns of organization in the cardiovascular/respiratory systems. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.6.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the cardiovascular/respiratory systems.



SC.HSP.6.6.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the cardiovascular/respiratory systems help maintain homeostasis.



SC.HSP.6.6.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the cardiovascular/respiratory systems. Evidence could include data obtained from case studies.

SC.HSP.6.7 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the digestive system.



SC.HSP.6.7.a **Plan and conduct an investigation** to identify patterns of organization in the digestive system. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.7.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the digestive system.



SC.HSP.6.7.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the digestive system help maintain homeostasis.



SC.HSP.6.7.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the digestive system. Evidence could include data obtained from case studies.

SC.HSP.6.8 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the urinary system.



SC.HSP.6.8.a **Plan and conduct an investigation** to identify patterns of organization in the urinary system. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.8.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the urinary system.



SC.HSP.6.8.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the urinary system help maintain homeostasis.



SC.HSP.6.8.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the urinary system. Evidence could include data obtained from case studies.

SC.HSP.6.9 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the reproductive system.



SC.HSP.6.9.a **Plan and conduct an investigation** to identify patterns of organization in the reproductive system. Information could be gathered from dissections, models, simulations, and scientific texts.



SC.HSP.6.9.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the reproductive system. Include spermatogenesis, oogenesis, and menstruation.



SC.HSP.6.9.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the reproductive system help maintain homeostasis.



SC.HSP.6.9.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the reproductive system. Evidence could include data obtained from case studies.

SC.HSP.17 Engineering in Health Sciences

SC.HSP.17.1 Gather, analyze, and communicate evidence of the connection between health science careers and engineering.



SC.HSP.17.1.a **Obtain, evaluate, and communicate information** related to health science careers and the various roles they fulfill within the health care system. Examples include researcher, bio-medical engineer, medical professional, technician, manufacturer and distributor, administrator, and data storage and security professional.



SC.HSP.17.1.b **Design a solution** to a complex, real-world problem affecting body systems that can be solved through engineering. Solutions could include prosthetics, mobility enhancement, engineered body parts, treatment processes, and disease control.



SC.HSP.17.1.c **Evaluate a solution** to a complex, real-world human health problem based on prioritized criteria constraints that account for interactions within and between systems. Solutions could include the effects on the human body or solutions for environmental public health issues.

SC.HSP.18 Body Systems

SC.HSP.18.1 Gather, analyze, and communicate evidence of the connections between body systems.



SC.HSP.18.1.a **Construct and revise an explanation** based on evidence for the cycling of matter and flow of energy within and between body systems.



SC.HSP.18.1.b **Develop and use models** to explain the interactions between body systems. Emphasis should also include interactions with the endocrine system.

APPENDIX A: TOPIC PROGRESSION

TOPIC/GRADE	K	1	2	3	4	5	6	7	8	HS
1. Forces & Interactions	SC.K.1			SC.3.1					SC.8.1	SC.HS.1
2. Waves & Electro-magnetic Radiation		SC.1.2			SC.4.2				SC.8.2	SC.HS.2
3. Structure & Properties of Matter			SC.2.3			SC.5.3		SC.7.3		SC.HS.3
4. Energy					SC.4.4		SC.6.4		SC.8.4	SC.HS.4
5. Chemical Reactions								SC.7.5		SC.HS.5
6. Structure & Function		SC.1.6			SC.4.6					SC.HS.6
7. Inter-dependent Relationships in Ecosystems	SC.K.7		SC.2.7	SC.3.7			SC.6.7	SC.7.7		SC.HS.7
8. Matter & Energy in Organisms & Ecosystems						SC.5.8		SC.7.8		SC.HS.8
9. Heredity: Inheritance & Variation of Traits				SC.3.9			SC.6.9		SC.8.9	SC.HS.9
10. Biological Evolution									SC.8.10	SC.HS.10
11. Space Systems		SC.1.11				SC.5.11			SC.8.11	SC.HS.11
12. Weather & Climate	SC.K.12			SC.3.12			SC.6.12			SC.HS.12
13. Earth's Systems			SC.2.13		SC.4.13	SC.5.13	SC.6.13	SC.7.13		SC.HS.13
14. History of Earth								SC.7.14	SC.8.14	SC.HS.14
15. Sustainability										SC.HS.15

APPENDIX B: HS INTEGRATED SCIENCE COURSE MODEL

This appendix provides two examples of possible high school science course sequences. The first example outlines the NE Integrated Food, Energy, and Water Model, a series of interdisciplinary classes that blend Nebraska-specific contexts with global science issues. This example of standard bundles was developed in collaboration with University of Nebraska-Lincoln faculty. The second example presents course mapping of Disciplinary Core Ideas (DCIs) into a coherent sequence as outlined in A Framework for K-12 Science Education.

Course 1: Science Foundations seeks to lay a foundation for understanding the complexities of the biological and physical domains by deeply understanding the driving principles that allow matter to exist and function as it does in the universe. The topics in this course will be explored through the lens of the Nebraska Career Education Model.

Unit 1: Newtonian Forces	Unit 2: Gravity/ Electro-magnetism	Unit 3: Energy	Unit 4: Waves & Electromagnetic Radiation	Unit 5: Earth's Interior	Unit 6: Structure and Properties of Matter	Unit 7: Molecular Level Design	Unit 8: Space Exploration
HS.1.1.a HS.1.1.b HS.1.1.c	HS.1.1.d HS.1.1.e HS.4.4.f	HS.4.4.a HS.4.4.b HS.4.4.c HS.15.4.b	HS.2.2.a HS.2.2.b HS.2.2.c HS.2.2.d HS.2.2.e	HS.13.3.b HS.13.3.c	HS.3.3.a HS.3.3.c	HS.3.3.b HS.3.3.d	HS.11.5.a HS.11.5.b HS.11.5.c HS.11.5.d

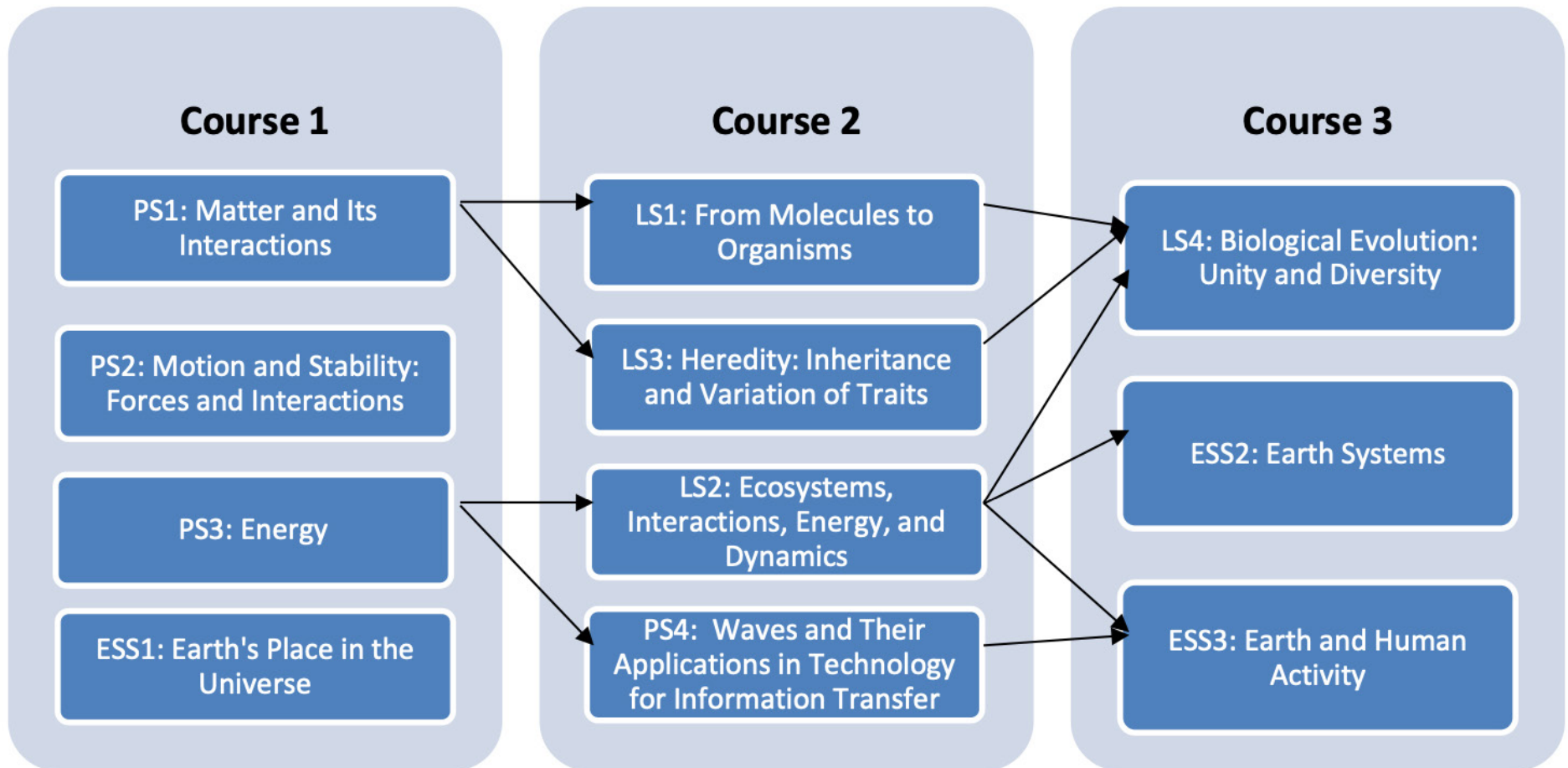
Course 2: Water in Society begins by expanding upon what was learned in Course 1 by taking a deeper look into matter and energy through the lens of water. It includes general chemistry concepts as they relate to water and life processes & systems. The course then focuses on how organisms and global systems maintain stability, transfer energy, and cycle matter. The final focus is on the sustainability of water.

Unit 1: Introduction to Water	Unit 2: Chemistry Between Life & Water	Unit 3: Small Systems Equilibrium	Unit 4: Systems: Energy in Balance	Unit 5: Movement of Matter in Global Systems	Unit 6: Sustainability of Water
SC.HS.13.3.d SC.HS.5.5.a	SC.HS.8.3.a SC.HS.5.5.f SC.HS.8.3.b SC.HS.8.3.c SC.HS.5.5.b	SC.HS.8.3.e SC.HS.5.5.c SC.HS.5.5.d	SC.HS.6.1.c SC.HS.13.3.a SC.HS.4.4.e SC.HS.14.2.c SC.HS.12.1.b	SC.HS.13.3.e SC.HS.8.3.f	SC.HS.15.4.a SC.HS.12.1.c SC.HS.15.4.d

Course 3: Land, Food, and People expands upon what was learned in both Course 1 and 2 taking a deeper dive into the coevolution of Earth systems and organisms. It is designed to introduce students to information, ideas, and concepts about the interactions of people, land and the demands for food. Students will investigate the history of the Earth, biological adaptation, heredity, and interdependent relationships in ecosystems. At the end of the course, students will be able to analyze, synthesize and communicate information about the dynamic relationships of land, food, and people from ethical, civic and stewardship perspectives and explain the impacts of human decisions on renewable and non-renewable resources.

Unit 1: Earth's History	Unit 2: Biological Evolution	Unit 3: Heredity: Inheritance & Variation	Unit 4: Structure & Function	Unit 5: Interdependent Relationships in Organisms	Unit 6: Sustainability
SC.HS.14.2.a SC.HS.14.2.b HS.12.1.a HS.12.1.d SC.HS.14.2.d	SC.HS.10.5.a SC.HS.10.5.b SC.HS.10.5.c SC.HS.10.5.d SC.HS.10.5.e SC.HS.7.2.e	HS.9.4.a HS.9.4.b HS.9.4.c	HS.6.1.a HS.6.1.b HS.6.1.d	HS.7.2.a HS.7.2.b HS.7.2.c HS.8.3.d	HS.7.2.d HS.15.4.c HS.15.4.f HS.7.2.f

NGSS Conceptual Progressions Model



Southern Public Schools

2025-2026 Preschool Calendar

July—2025

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August—2025

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	[21	22	23
24	25	26	27	28	29	30
31						

September—2025

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October—2025

S	M	T	W	T	F	S
			1	<u>2</u>	<u>3</u>	4
5	6	7	8	9	10	11
12	13	[14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November—2025

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December—2025

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	<u>23</u>	24	25	26	27
28	29	30	31			

August—2025

18-20	Teacher In-Service (No School)
21	First Day of Classes

September—2025

1	Labor Day (No School)
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October—2025

2	Early Dismissal (1:20/1:30 p.m.) Parent Teacher Conferences (3:00 p.m. – 8:00 p.m.)
3	Fall Break (No School)
9	End of First Quarter (29 Days)
13	Teacher In-Service (No School)
14	Second Quarter Begins

November—2025

2	Standard Time Begins
26-28	Thanksgiving Break (No School)

December—2025

23	Early Dismissal (1:20/1:30 p.m.) End of Second Quarter (39Days)
24-31	Winter Break (No School)

January—2026

1-5	Winter Break (No School)
6	Teacher In-Service (No School)
7	First Day of Third Quarter

February—2026

19	Early Dismissal (1:20/1:30 p.m.) Parent Teacher Conferences (3:00 p.m. – 8:00 p.m.)
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March—2026

8	Daylight Savings Begins
12	End of Third Quarter (39 Days)
16	Fourth Quarter Begins

April—2026

6	Spring Break (No School)
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May—2026

21	Early Dismissal (1:20/1:30 p.m.) End of Fourth Quarter (39 Days)
----	---

January—2026

S	M	T	W	T	F	S
				1	2	3
4	5	6	[7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February—2026

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	<u>19</u>	20	21
22	23	24	25	26	27	

March—2026

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12]	13	14
15	[16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April—2026

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May—2026

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10	11	12	13	14	15	16
17	18	19	20	<u>21</u>	22	23
24	25	26	27	28	29	30
31						

June—2026

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Key: Blue Font (Single Underline) = Late Start or Early Dismissal
 Red Font = Holidays/Non-Contract Days (No School)
 Red Font (Strikethrough) = Teacher In-Service (No School)
 [] = First/Last Day of the Quarter

Note: Any/all mechanical or weather related loss of school time will be made up at the discretion of the Board of Education and/or the Superintendent.
 Student Instructional Days **146**
 Teacher Contract Days **182**

Southern Public Schools

2025-2026 District Calendar

July—2025

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August—2025

S	M	T	W	T	F	S
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	[21	22	23
24	25	26	27	28	29	30
31						

September—2025

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October—2025

S	M	T	W	T	F	S
			1	<u>2</u>	<u>3</u>	4
5	6	7	8	9	10]	11
12	13	[14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November—2025

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2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December—2025

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	<u>23</u>	24	25	26	27
28	29	30	31			

Note: Any/all mechanical or weather related loss of school time will be made up at the discretion of the Board of Education and/or the Superintendent.
 Student Instructional Days **173**
 Teacher Contract Days **182**

August—2025

18-20	Teacher In-Service (No School)
21	First Day of Classes

September—2025

1	Labor Day (No School)
---	-----------------------

October—2025

2	Early Dismissal (1:20/1:30 p.m.) Parent Teacher Conferences (3:00 p.m. – 8:00 p.m.)
3	Fall Break (No School)
10	End of First Quarter (35 Days)
13	Teacher In-Service (No School)
14	Second Quarter Begins
31	Teacher In-Service (No School)

November—2025

2	Standard Time Begins
26-28	Thanksgiving Break (No School)

December—2025

23	Early Dismissal (1:20/1:30 p.m.) End of Second Quarter (47Days)
24-31	Winter Break (No School)

January—2026

1-5	Winter Break (No School)
6	Teacher In-Service (No School)
7	First Day of Third Quarter

February—2026

19	Early Dismissal (1:20/1:30 p.m.) Parent Teacher Conferences (3:00 p.m. – 8:00 p.m.)
20	Teacher In-Service (No School)

March—2026

6	Spring Break (No School)
8	Daylight Savings Begins
12	End of Third Quarter (45 Days)
13	Spring Break (No School)
16	Fourth Quarter Begins

April—2026

3	Spring Break (No School)
6	Spring Break (No School)

May—2026

8	Last Day for Seniors
16	Graduation (5:00 p.m.)
21	Early Dismissal (1:20/1:30 p.m.) End of Fourth Quarter (47 Days)

January—2026

S	M	T	W	T	F	S
				<u>1</u>	<u>2</u>	3
4	5	6	[7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February—2026

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	<u>19</u>	20	21
22	23	24	25	26	27	

March—2026

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12]	13	14
15	[16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April—2026

S	M	T	W	T	F	S
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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May—2026

S	M	T	W	T	F	S
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	<u>21</u>	22	23
24	25	26	27	28	29	30
31						

June—2026

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Key: Blue Font (Single Underline) = Late Start or Early Dismissal
 Red Font = Holidays/Non-Contract Days (No School)
 Red Font (Strikethrough) = Teacher In-Service (No School)
 [] = First/Last Day of the Quarter

6027 Field Trips

The board encourages instructional staff to incorporate field trips into the curriculum. These trips should normally be conducted during the school day.

1. General Conditions

All trips must be pre-approved by the teacher's building principal. Out-of-state and overnight trips require pre-approval by the board. The superintendent and principals will develop guidelines for approval of trips and communicate those guidelines to teaching staff.

2. Parental Permission

Each student must submit a signed parental permission slip prior to being allowed to attend a field trip. A new permission slip must be submitted for each trip. Caregivers, as that term is defined in the Nebraska Strengthening Families Act, shall be permitted to sign parental permission slips.

3. Supervision

Sponsoring teachers must ensure that students are adequately supervised and chaperoned by a responsible adult at all times during field trips. Whether paid staff or volunteers, chaperones are prohibited from drinking alcoholic beverages of any kind at any time during any field trip. All chaperones must be at least 21 years of age. Any chaperone who drives students must possess a valid driver's license. Chaperones who drive students in private vehicles must possess adequate insurance coverage. Chaperones do not have any property right in or to a chaperone assignment. The school district may deny or terminate a chaperone assignment for any reason that is not unconstitutional or unlawful. The superintendent's decision shall be final. All chaperones must pass a background check prior to them being permitted to attend the event (Unless a chaperone is going for every child and they are just supervising their own child).

4. Student Conduct

Students must comply with the student code of conduct, any applicable extracurricular conduct codes, and all directives by trip chaperones.

Adopted on: 3-11-2019

Revised on: _____

Reviewed on: _____



Guidance for the Review and Approval of District Evaluation of Certificated Personnel

State Statute §79-318

State Statute §79-828

Any changes to district certificated employee evaluation policy or practices must be submitted for review and approval by the Nebraska Department of Education (NDE) Office of Accreditation, Certification, and Approval. Official approval of changes to certificated employee evaluation policy and practices should be secured prior to implementation of the changes within the district, which includes any pilot activities that might be embedded within broader district certificated employee evaluation policy or practices.

This guidance outlines procedures for submitting a request for review and approval by the Office of Accreditation, Certification, and Approval.

- Use the Certificated-Employee Checklist to review Rule 10 requirements for certificated employee evaluation policies and procedures.
- Send an email review request for any revised evaluation policies with significant updates highlighted or explained in a brief narrative to: (nde.accreditation@nebraska.gov).
- Send an email review request for any revised evaluation procedures with significant updates highlighted or explained in a brief narrative to: (nde.accreditation@nebraska.gov).
- NDE Accreditation Consultants will respond by indicating approval or with an explanation of necessary adjustments to meet Rule 10 requirements.
- Upon completion of the NDE review, secure approval by the local district Board of Education.
- Send the Board of Education minutes indicating the approval of the updated system to: (nde.accreditation@nebraska.gov).
- NDE Consultants will send a formal letter of approval upon receiving the Board of Education minutes.
- All approved district certified employee evaluation policies and procedures are maintained at the NDE Accreditation Office.

Please contact the NDE Office of Accreditation, Certification, and Approval with any questions.



Superintendent Evaluation Domains

1. Communication
 - a. Communication with the Board
 - b. Communication with Staff
 - c. Communication with Students and Families
 - d. Communication with Community
2. Vision
 - a. Collaboration with the Board to Create a Clear Strategic Plan
 - b. Planning for Future Curriculum and Instructional Needs of the District
 - c. Planning for the Future Facilities Needs of the District
 - d. Planning for the Future Staffing Needs of the District
3. Administration
 - a. Budget and Finance
 - b. Facilitation of Efficient Board Meetings
 - c. HR Functions - Hiring, Retention, Evaluation, Improvement and Discipline of Staff
 - d. Policy Management - Reviewing, Updating and Implementing Board Policies
4. Leadership
 - a. Culture of District
 - b. Harmonious Relationship with Board
 - c. Integrity & Authenticity - Personally & Professionally
 - d. Leading Staff

Ratings Scale

1/2 = Unacceptable:

performance fails to meet the established standards in one or more critical respect

3/4 = Needs Improvement

sometimes performs at an acceptable level but he/she is not consistent and needs improvement to meet expectations consistently

5/6 = Satisfactory

meets all job requirements and is fully adequate for the job

7/8 = Good

frequently exceeds minimum acceptable standards

9/10 = Superior

Outstanding; consistently exceeds the board's expectations

Comments

Board members provide additional comments to the superintendent under each domain and also overall comments on performance at the conclusion of the instrument.

Self-Evaluation

The Superintendent will also evaluate himself/herself in each of the domains, and will have the ability to upload artifacts which demonstrate achievement or progress in mastery in each domain.

Documentation

A final evaluation report will be produced in a downloadable .pdf which will be provided to each board member and which will be maintained in the superintendent's personnel file.

Screen captures of the evaluation screen for each domain are attached below.

Communication

Below are aspects associated with the communication theme. Using the scale below, *(With 1 being Unacceptable and 10 being Superior)* please rate the superintendent on each of the aspects to the best of your ability.

**Communication
with Board**

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

**Communication
with Staff**

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

**Communication
with Students and
Families**

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

**Communication
with Community**

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

Vision

Below are aspects associated with the communication theme. Using the scale below, *(With 1 being Unacceptable and 10 being Superior)* please rate the superintendent on each of the aspects to the best of your ability.

Collaboration with the Board to Create a Clear Strategic Plan

Unacceptable	Needs Improvement		Satisfactory		Good		Superior		
1	2	3	4	5	6	7	8	9	10

Planning for Future Curriculum and Instructional Needs of the District

Unacceptable	Needs Improvement		Satisfactory		Good		Superior		
1	2	3	4	5	6	7	8	9	10

Planning for the Future Facilities Needs of the District

Unacceptable	Needs Improvement		Satisfactory		Good		Superior		
1	2	3	4	5	6	7	8	9	10

Planning for the Future Staffing Needs of the District

Unacceptable	Needs Improvement		Satisfactory		Good		Superior		
1	2	3	4	5	6	7	8	9	10

Administration of District

Below are aspects associated with the administration of district theme. Using the scale below, *(With 1 being Unacceptable and 10 being Superior)* please rate the superintendent on each of the aspects to the best of your ability.

Budget and Finance

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

Facilitation of Efficient Board Meetings

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

HR Functions - Hiring, Retention, Evaluation, Improvement and Discipline of Staff

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

Policy Management - Reviewing, Updating and Implementing Board Policies

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

Leadership

Below are aspects associated with the administration of district theme. Using the scale below, *(With 1 being Unacceptable and 10 being Superior)* please rate the superintendent on each of the aspects to the best of your ability.

Culture of District

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

Harmonious Relationship with Board

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

Integrity & Authenticity - Personally & Professionally

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10

Leading Staff

Unacceptable		Needs Improvement		Satisfactory		Good		Superior	
1	2	3	4	5	6	7	8	9	10



TEL
FAX

402.471.2295
402.471.0117



P.O. Box 94987
Lincoln, NE 68509-4987



education.ne.gov



November 25, 2024

Chris Prosocki
Southern School District 1
115 S 11th Street, P.O. Box 237
Wymore, NE 68466

Mr. Prosocki:

This letter is to inform you that we have received and reviewed the superintendent evaluation instrument from Southern School District 1. Southern Board Policy 4057, pursuant to NAC 92 Rule 10: Section 007.06 that was approved by the Nebraska Department of Education and the Southern School Board on November 12, 2018, remains in effect for Superintendent Evaluation in your district.

The superintendent evaluation policies and procedures for Southern School District 1 will remain approved until your school revises them. These documents, including this letter, will be added to your school's file at the Nebraska Department of Education. A copy of the December 5, 2024, minutes of the Southern School Board when this new instrument will be approved will be included as well. Please send me a copy of those minutes as soon as possible after the meeting.

If you have any questions regarding this letter or any of the applicable requirements of Rule 10: *Regulations and Procedures for the Accreditation of Schools*, feel free to contact me.

Sincerely,

Todd F. Wolverton



To lead and support the preparation of all Nebraskans for learning, earning, and living.

4057 Superintendent Evaluation

The board shall observe and evaluate the superintendent based upon actual classroom observations for an entire instructional period at least twice during his first year of employment and at least once each year thereafter. Additional evaluations may be conducted at the discretion of the board. For the purposes of this policy, "actual classroom observation" shall mean observing the superintendent performing activities that are typical of his or her position. An "entire instructional period" for administrators cannot be defined in terms of an instructional period and shall be satisfied by the actual observation of some aspect of the superintendent's work during the semester for no less than 40 minutes.

Purpose. The purposes of the formal job evaluation are:

1. To provide a means of rational, structured communication between the board and superintendent to create a more constructive and effective working relationship.
2. To provide a basis for commending, rewarding and reinforcing good work, as well as identifying areas where the superintendent needs to improve.
3. To clarify the superintendent's role and inform the superintendent of the board's expectations.

Dates. Unless otherwise provided for in the superintendent's employment contract, the first year evaluations should take place (1) at or prior to the October board meeting, and (2) at or prior to the January board meeting. Annual evaluations shall take place at a board meeting held during the month before the date in the superintendent's employment contract by which the board must notify the superintendent of its intention to consider the nonrenewal or amendment of the contract. In the absence of such a contract provision, the annual evaluation should take place at or prior to the March board meeting. The Superintendent shall remind the Board members in writing at least 45 days before the date of each upcoming evaluation and shall make his evaluation an agenda item for the board meeting.

Evaluation Document. The superintendent shall submit a recommended evaluation document to the board. The board shall meet and discuss the proposed document with the superintendent. The board may amend and adopt the proposed evaluation document. The board may amend the document or adopt a new document without amending this policy. The superintendent shall submit the evaluation document to the Nebraska Department of Education.

Evaluation Procedures. Each board member shall have the opportunity to complete a draft evaluation document. KSB School Law~~The bookkeeper~~ shall compile the individual draft evaluations into a single and final evaluation, provide a copy to the superintendent, and the board president shall discuss it with him or her. The superintendent's evaluation may be conducted in closed session if it is necessary to prevent needless injury to the superintendent's reputation and if he or she has not requested it be done in open session.

Deficiencies. If deficiencies are noted in the superintendent's work performance, the board shall provide the superintendent at the time of the observation with a list of deficiencies and a list of suggestions for improvement and assistance in overcoming the deficiencies. The board shall also provide the superintendent with follow-up evaluations and assistance when deficiencies remain, a timeline for improvement, and sufficient time to improve. In the alternative, the board may rely upon the superintendent's education, training, and expertise and require him or her to submit a "list of suggestions for improvement" or plan of improvement for the board's consideration.

Personnel File. The evaluation shall be signed by the board president (or other member of the board) and the superintendent. The superintendent shall place a copy of the evaluation in his or her personnel file. The superintendent may provide a written response to the evaluation to the board. A copy of the response shall also be placed in the superintendent's personnel file. The board may meet with the superintendent to discuss the written response.

Policy Limitation. The evaluation procedures are included in this policy as a result of the board's statutory obligation to evaluate the superintendent and do not give the superintendent any rights not provided by statute. The board's failure to comply with any procedures provided in this policy but not required by law shall not prohibit the board from taking any action regarding the superintendent's employment, up to and including the nonrenewal, amendment, or cancellation of the employment contract.

Adopted on: 121-912-202418

Revised on: _____

Reviewed on: _____

2008 Meetings

The formation of policy is public business and will be conducted openly in accordance with the Nebraska Open Meetings Act.

1. Types of Meetings

- a. The board shall hold its regular meetings on or before the third Monday of each month.
- b. Special and emergency meetings may be called as provided by law.
- c. The board may schedule work sessions and retreats in order to provide board members and administrators with the opportunity to plan, research, and engage in discussion.

2. Notice

The board shall give reasonable advance publicized notice of the time and place of each of its meetings, which generally will be 48 hours or more in advance of the meeting. Such notice shall be transmitted to all members of the board and to the public.

Publication Procedure if the Newspaper Will Not Be Finalized for Printing Prior to the Time and Date of the Meeting. Notice of regular and special meetings shall be (1) posting on the newspaper's website, if available, and (2) posting on a statewide website established and maintained as a repository for such notices by a majority of Nebraska newspapers if no edition of a newspaper of general circulation within the school district's jurisdiction is to be finalized for printing prior to the time and date of the meeting.

Newspapers of general circulation in the district include the Fairbury Journal-News, Lincoln Journal Star, or the Omaha World-Herald. Such notice shall contain a statement that the agenda shall be readily available for public inspection at the administration office of the school during the normal business hours. In addition, the superintendent is authorized, but not required, to publish the notice of any meeting on the school district's website, posting in three prominent places within the school district, or by any other appropriate method designated by the board.

In case of refusal, neglect, or inability of the newspaper to timely publish the

notice, the school district will (1) post the notice on its website, if available, (2) submit a post on a statewide website established and maintained as a repository for such notices by a majority of Nebraska newspapers, and (3) post the notice in a conspicuous public place in the school district's jurisdiction. The school district will keep a written record of the posting.

When it is necessary to hold an emergency meeting without reasonable advance public notice, the nature of the emergency shall be stated in the minutes of the meeting, and any formal action taken in such meeting shall pertain only to the emergency. Complete minutes of such emergency meetings specifying the nature of the emergency and any formal action taken at the meeting shall be made available to the public no later than the end of the next regular business day.

3. Weather Delays

In the event of inclement weather which makes it dangerous or unreasonable for board members or members of the public to attend a meeting for which notice has already been given, such meeting may be postponed by the board president. The board will communicate the delay to members of the public by posting it on the district's website and by following the same communication protocol that the district follows when student attendance at school is called off due to inclement weather. When possible, the board president and superintendent will attempt to communicate the information to local media members and business owners to assist in notifying the public of the delay. Notice of the date, time, and location of the postponed meeting will be advertised as required in the "Notice" section above.

4. Minutes

- a. The board shall keep minutes of all meetings showing the time, place, members present and absent, the method(s) and date(s) of the meeting notice, and the substance of all matters discussed.
- b. Any action taken on any question or motion duly moved and seconded shall be by roll call vote of the board in open session, and the record shall state how each member voted, or if the member was absent or not voting.
- c. The minutes of all meetings and evidence and documentation received or disclosed in open session shall be public record and shall be published on the school district's website within ten working days of the last meeting or prior to the next convened

meeting, whichever occurs earlier. The minutes shall be available on the website for at least six months.

Adopted on: 7-9-2018

Revised on: 12-9-2024

Reviewed on: 1-10-2022

3004.1 Fiscal Management for Purchasing and Procurement Using Federal Funds

I. Applicability of Policy

This policy applies only to non-construction related purchases undertaken with federal funds which are subject to the federal Uniform Grant Guidance (UGG) and other applicable federal law, including but not limited to the Education Department and General Administration Regulations (EDGAR) and the United States Department of Agriculture (USDA) regulations governing school food service programs. In the event this policy conflicts or is otherwise inconsistent with mandatory provisions of the UGG, EDGAR or other applicable federal law, the mandatory provisions of the laws shall control.

All other non-construction purchases will be governed by the Board's general purchasing policy, which can be found earlier in this subsection. In the event of a conflict between state and federal law, the more stringent requirement shall apply.

This procurement policy shall govern all purchasing activities that relate to any aspect of the National School Lunch and Breakfast Programs. The district's goal is to fully implement all required procurement rules, regulations and policies set forth in 2 CFR 200, 7 CFR parts 210, 3016 and 3019, and by the Nebraska Department of Education.

II. Procurement System

The District maintains the following purchasing procedures.

A. Responsibility for Purchasing

The authority to make purchases shall be governed by the District's purchasing policy, which can be found elsewhere in this section. Except as otherwise provided in the District's purchasing policy, the acquisition of services, equipment, and supplies shall be centralized in the administration office under the supervision of the superintendent of schools, who shall be responsible for developing and administering the purchasing program of the school district. Purchases or commitments of district funds that are not authorized by this policy will be the responsibility of the person making the commitment.

B. Methods of Purchasing

The type of purchase procedures required depends on the cost of the item(s) being purchased.

1. Purchases up to \$10,000 (Micro-Purchases)

Micro-purchase means an individual procurement transaction for supplies or services using simplified acquisition procedures, the annual aggregate amount of which does not exceed \$10,000. Micro-purchases may be made or awarded without soliciting competitive quotations, to the extent district staff determine that the cost of the purchase is reasonable. For purposes of this policy "reasonable" means the purchase is comparable to market prices for the geographic area.

To the extent practicable, the District distributes micro-purchases equitably among qualified suppliers. The District will follow its standard policy on purchasing, which can be found earlier in this subsection.

2. Purchases between \$10,000 and \$250,000 (Simplified Acquisition Procedures)

Simplified acquisitions are purchases that, in the aggregate amount, are more than \$10,000 and less than \$250,000 annually. For simplified acquisitions, price or rate quotes shall be obtained in advance from a reasonable number of qualified sources as detailed in the district's standard policies on purchasing and on bid letting and contracts, which can be found earlier in this subsection.

3. Purchases Over \$250,000

a) Sealed Bids (Formal Advertising)

For purchases over \$250,000, the district will generally follow the bidding process outlined in the board's policy on Bidding for Construction, Remodeling, Repair or Site Improvement. If sealed bids are not accepted for a purchase of over \$250,000, the district will retain an explanation for that decision.

b) Contract/Price Analysis

The District performs a cost or price analysis in connection with every procurement action in excess of \$250,000, including contract modifications. The district will make an independent estimate of costs prior to receiving bids or proposals.

4. **Noncompetitive Proposals (Sole Sourcing)**

- a) Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one source and may be used only when one or more of the following circumstances apply:
 - 1) The procurement transaction can only be fulfilled by a single source;
 - 2) The public exigency or emergency for the requirement will not permit a delay resulting from providing public notice of a competitive solicitation;
 - 3) The federal awarding agency or pass-through entity expressly authorizes written approval of noncompetitive proposals in response to a written request from the District; or
 - 4) After solicitation of a number of sources, competition is determined inadequate.
- b) Noncompetitive proposals may only be solicited with the approval of the superintendent or the board. Sufficient and appropriate documentation that justifies the sole sourcing decision must be maintained by the superintendent or designee.
- c) A cost or price analysis will be performed for noncompetitive proposals when the price exceeds \$250,000.

5. **Competitive Proposals.**

- a) The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids. If this method is used, the following requirements apply:

- 1) Requests for proposals must be publicized and identify all evaluation factors and their relative importance. Any response to publicized requests for proposals must be considered;
 - 2) Proposals must be solicited from an adequate number of qualified sources; and
 - 3) Contracts must be awarded to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered.
- b) The District may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby competitors' qualifications are evaluated and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used to procure A/E professional services. The method may not be used to purchase other services provided by A/E firms are a potential source to perform the proposed effort.
- c) The District may select a proposal that offers the best value and that is based upon the proposer's responsiveness to the proposal, experience, reputation, staff qualifications, ability and capacity to carry on the work, price, honesty, integrity, skills, business judgment, financial stability, past performance, and other relevant factors. The evaluation may be conducted by the school board, a designated committee, or another designee of the school board.

C. Use of Purchase (Debit & Credit) Cards

District use of purchase cards is subject to the policy on purchase cards which can be found elsewhere in this subsection.

D. Federal Procurement System Standards

The district's procurement transactions will be conducted in a manner providing full and open competition consistent with 2 C.F.R §200.319.

The District will maintain and follow general procurement standards consistent with 2 C.F.R. §200.318.

E. Debarment and Suspension

The District awards contracts only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration will be given to such matters as contractor integrity, public policy compliance, proper classification of employees (see the Fair Labor Standards Act, 29 U.S.C. 201, chapter 8), record of past performance, and financial and technical resources when conducting a procurement transaction.

The District may not subcontract with or award subgrants to any person or company who is debarred or suspended. For all contracts over \$25,000 the District verifies that the vendor with whom the District intends to do business with is not excluded or disqualified. 2 C.F.R. Part 200, Appendix II(1) and 2 C.F.R. §§ 180.220 and 180.300.

The District will verify debarment or suspension by revising the excluded parties list on SAM.gov, collecting a certification through the bidding process, and/or by including a debarment and suspension provision in the bid and contract documents. The Superintendent or his/her designee shall be responsible for such verification.

F. Settlements of Issues Arising Out of Procurements

The District alone is responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to, source evaluation, protests, disputes, and claims. These standards do not relieve the District of any contractual responsibilities under its contracts. Violations of law will be referred to the local, state, or federal authority having proper jurisdiction.

III. Conflict of Interest and Code of Conduct

A. Board and staff member conflicts of interest are governed by the district's conflict of interest policies.

B. Purchases covered by this policy are subject to the following additional provisions.

1. Employees, officers, and agents engaged in the selection, award, and/or administration of district contracts which are prohibited from engaging in such actions if a real or apparent conflict of interest is present.
2. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract.
3. The board may determine at its discretion that a financial interest is not substantial enough to give rise to a conflict of interest.

C. Favors and Gifts

An employee, officer, agent, and board member of the District may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts, except that this provision does not prohibit the receipt of unsolicited items of nominal value. For purposes of this policy, "nominal value" means a fair market value of \$25 or less.

D. Enforcement

Disciplinary Actions including, but not limited to, counseling, oral reprimand, written reprimand, suspensions without pay, or termination of employment, will be applied for violations of such standards by officers, employees, board members, or agents of the District.

IV. Property Management Systems

A. Property Classifications

1. Equipment means tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost that equals or exceeds the lesser of the capitalization level established by the District for financial statement purposes, or \$10,000.
2. Supplies means all tangible personal property other than those described in §200.33 Equipment. A computing device is a supply if the acquisition cost is less than the lesser of the

capitalization level established by the District for financial statement purposes or \$105,000, regardless of the length of its useful life. 2 C.F.R. §200.94.

3. Computing Devices means machines that acquire, store, analyze, process, and publish data and other information electronically, including accessories (or “peripherals”) for printing, transmitting and receiving, or storing electronic information. 2 C.F.R. §200.20.
4. Capital Assets means tangible or intangible assets used in operations having a useful life of more than one year which are capitalized in accordance with GAAP. Capital assets include:
 - a) Land, buildings (facilities), equipment, and intellectual property (including software) whether acquired by purchase, construction, manufacture, lease-purchase, exchange, or through capital leases; and
 - b) Additions, improvements, modifications, replacements, rearrangements, reinstallations, renovations or alterations to capital assets that materially increase their value or useful life (not ordinary repairs and maintenance). 2 C.F.R. §200.12.

B. Inventory Procedure

Newly purchased property shall be received and inspected by the staff member who ordered it to ensure that that it matches the purchase order, invoice, or contract and that it is in acceptable condition.

Equipment, Computing Devices, and Capital Assets must be tagged with an identification number, manufacturer, model, name of individual who tagged the item, and date tagged).

C. Inventory Records

For equipment, computing devices, and capital assets purchased with federal funds, the following information is maintained in the property management system:

1. Serial number;
2. District identification number;
3. Manufacturer;

4. Model;
5. Date tagged and individual who tagged it;
6. Source of funding for the property;
7. Who holds title;
8. Acquisition date and cost of the property;
9. Percentage of federal participation in the project costs for the federal award under which the property was acquired;
10. Location, use and condition of the property; and
11. Any ultimate disposition data including the date of disposal and sale price of the property.

The inventory list shall be adjusted by the superintendent of schools or his/her designee for property that is sold, lost, stolen, cannot be repaired, or that cannot be located.

D. Physical Inventory

1. A physical inventory of the property must be taken and the results reconciled with the property records at least once every two years.
2. The Superintendent or his/her designee will ensure that the physical inventory is performed. The physical inventory will generally occur during the months of June or July, but may be conducted during other time periods with the approval of the superintendent.

E. Maintenance

In accordance with 2 C.F.R. 313(d)(4), the District maintains adequate maintenance procedures to ensure that property is kept in good condition.

F. Lost or Stolen Items

The District maintains a control system that ensures adequate safeguards are in place to prevent loss, damage, or theft of the property. The District will notify the Federal agency or pass-through entity of any loss, damage, or theft of equipment that will have an impact on the program.

G. Use of Equipment

Equipment must be used in the program or project for which it was acquired as long as needed, whether or not the project or program continues to be supported by the federal award, and the District will not encumber the

property for any non-federal program use without prior approval of the federal awarding agency and the pass-through entity.

H. Disposal of Equipment

When it is determined that equipment acquired under a federal award is no longer needed for the original project or program or for other activities currently or previously supported by a federal awarding agency, the Superintendent or his/her designee will contact the awarding agency (or pass-through for a state-administered grant) for disposition instructions.

If the item has a current fair market value of \$10,000 or less, it may be retained, sold, or otherwise disposed of with no further obligation to the federal awarding agency or pass-through entity. The Superintendent or his/her designee will utilize sales procedures which ensure the highest possible return on the disposal of the equipment.

I. Equipment Retention

When included in the terms and conditions of the Federal award, the Federal agency may permit the recipient to retain equipment, or authorize a pass-through entity to permit the recipient to retain equipment, with no further obligation to the Federal Government unless prohibited by Federal statute or regulation.

J. Equipment and Capital Expenditures

All equipment and capital expenditures shall comply with the rules and requirements of 2 CFR 200.439.

K. Depreciation

All depreciation shall comply with the rules and requirements of 2 CFR 200.436.

L. Reporting and Recording Federal Property Interest

The district will comply with federal interest reporting and submit annual reports, if required, regarding a real property interest due to a renovation, major remodeling, construction, or real property project funded by federal grant funds.

V. Financial Management

A. Identification

The District will identify, in its accounts, all federal awards received and expended and the federal programs under which they were received. Federal program and award identification include, as applicable, the CFDA title and number, federal award identification number and year, name of the federal agency, and, if applicable, name of the pass-through entity.

B. Financial Reporting

The District will make an accurate, current, and complete disclosure of the financial results of each federal award or program in accordance with the financial reporting requirements set forth in the Education Department General Administrative Regulations (EDGAR).

C. Accounting Records

The District maintains records which adequately identify the source and application of funds provided for federally-assisted activities. These records must contain information pertaining to grant or subgrant awards, authorizations, obligations, unobligated balances, assets, expenditures, income and interest and be supported by source documentation.

D. Internal Controls

The Superintendent or his/her designee must maintain effective control and accountability for all funds, real and personal property, and other assets through board review and approval of claims, an annual audit of the district's finances pursuant to the applicable Nebraska Department of Education and federal rules and regulations, and comparison of expenditures and outlays to budgeted amounts. The District adequately safeguards all such property and assures that it is used solely for authorized purposes. The District takes reasonable cybersecurity and other measures to safeguard information including protected personally identifiable information.

E. Budget Control

Actual expenditures or outlays will be compared with budgeted amounts for each federal award at least annually and more often as required by law or deemed prudent by the board or administrative staff.

F. Payment Methods

The District will comply with applicable methods and procedures for payment that minimize the time elapsing between the transfer of funds and disbursement by the District, in accordance with the Cash Management Improvement Act at 31 CFR Part 205. Generally, the District receives payment from the Nebraska Department of Education on a reimbursement basis. 2 CFR § 200.305. However, if the District receives an advance in federal grant funds, the District will remit interest earned on the advanced payment quarterly to the federal agency. The District may retain interest amounts up to \$500 per year for administrative expenses. 2 CFR § 200.305(b)(9).

Consistent with state and federal requirements, the District will maintain source documentation supporting the federal expenditures (invoices, time sheets, payroll stubs, etc.) and will make such documentation available for the Nebraska Department of Education to review upon request.

G. Allowability of Costs

Expenditures must be aligned with approved budgeted items. Any changes or variations from the state-approved budget and grant application need prior approval.

When determining how the District will spend its grant funds, the Superintendent or his/her designee will review the proposed cost to determine whether it is an allowable use of federal grant funds before obligating and spending those funds on the proposed good or service. All costs supported by federal education funds must meet the standards outlined in EDGAR, 2 CFR Part 3474 and 2 CFR Part. The Superintendent or his/her designee must consider these factors when making an allowability determination.

The Superintendent or his/her designee will consider Part 200's cost guidelines when federal grant funds are expended. The Superintendent or his/her designee will also consider whether all state - and District-level requirements and policies regarding expenditures have been followed.

H. Use of Program Income – Deduction, Addition, or Cost Sharing or Matching

The default method for the use of program income for the District is the deduction method. 2 C.F.R. § 200.307(e). Under the deduction method, program income is deducted from total allowable costs to determine the net allowable costs. Program income will only be used for current costs unless the District is otherwise directed by the federal awarding agency or pass-through entity. 2 C.F.R. § 200.307(e)(1). The District may also request prior approval from the federal awarding agency to use the addition method. Under

the addition method, program income may be added to the Federal award by the Federal agency and the non-Federal entity. The program income must then be used for the purposes and under the conditions of the Federal award. 2 C.F.R. § 200.307(e)(2). The District may also request prior approval from the federal awarding agency to use the cost sharing or matching method.

While the deduction method is the default method, the District always refers to the grant award notice prior to determining the appropriate use of program income.

I. Cost Sharing or Matching

For all Federal awards, any shared costs or matching funds and all contributions, including cash and third-party in-kind contributions, must be accepted as part of the non-Federal entity's cost sharing or matching when such contributions meet all of the following criteria:

- (1) Are verifiable from the non-Federal entity's records;
- (2) Are not included as contributions for any other Federal award;
- (3) Are necessary and reasonable for accomplishment of project or program objectives;
- (4) Are allowable under [subpart E \(Cost Principles\) of this part](#);
- (5) Are not paid by the Federal Government under another Federal award, except where the Federal statute authorizing a program specifically provides that Federal funds made available for such program can be applied to matching or cost sharing requirements of other Federal programs;
- (6) Are provided for in the approved budget when required by the Federal awarding agency; and
- (7) Conform to other provisions of this part, as applicable.

J. Documentation of Personnel Expenses

Records that reflect charges to federal awards for salaries and wages will comply with the rules and requirements of 2 CFR 200.430.

VI. Written Compensation Policies

A. Time and Effort Standards

All employees who are paid in full or in part with federal funds must keep specific documents to demonstrate the amount of time they spent on grant activities. This includes an employee whose salary is paid with state or local funds but is used to meet a required "match" in a federal program. These

documents, known as time and effort records, are maintained in order to charge the costs of personnel compensation to federal grants. Charges to federal awards for salaries and wages must be based on records that accurately reflect the work performed. These records must:

- (1) Be supported by a system of internal controls which provides reasonable assurance that the charges are accurate, allowable, and properly allocated;
- (2) Be incorporated into official records;
- (3) Reasonably reflect total activity for which the employee is compensated, not exceeding 100% of compensated activities;
- (4) Encompass both federally assisted and all other activities compensated by the District on an integrated basis;
- (5) Comply with the established accounting policies and practices of the District and
- (6) Support the distribution of the employee's salary or wages among specific activities or costs objectives.

B. Time and Effort Procedures

Time and effort procedures will follow and comply with 2 CFR 200.430(i).

C. Fringe Benefits

Except as provided otherwise by federal law, the costs of fringe benefits will be allowable provided that the benefits are reasonable and required by law, a district-employee agreement, or another policy of the District.

D. Leave

The cost of fringe benefits in the form of regular compensation paid to employees during periods of authorized absences from the job, such as for annual leave, family-related leave, sick leave, holidays, court leave, military leave, administrative leave, and other similar benefits, are allowable if they are provided under established written District leave policies.

E. Unexpected or Extraordinary Circumstances

In the event of a pandemic or other unexpected or extraordinary circumstance, the District may close school or individual buildings. In such case, the District may compensate federally funded or other employees during such closure to ensure the return of staff to employment after the closure as allowed by state or federal law.

F. Documentation for Personnel Expenses

Records that reflect charges to federal awards for salaries and wages will comply with the rules and requirements of 2 CFR 200.430.

VII. Other Contract Matters.

A. Required Terms

The non-Federal entity's contracts must contain the applicable provisions required by section 200.326 and described in Appendix II to Part 200—Contract Provisions for non-Federal Entity Contracts Under Federal Awards.

B. Contracting with Certain Vendors

Pursuant to the standards contained in 2 C.F.R. § 200.321, the District will take all necessary affirmative steps to assure that minority businesses, women's business enterprises, veteran-owned businesses, and labor surplus area firms are used when possible consistent with state law.

Buy American. The District participates in the National School Lunch Program and School Breakfast Program and is required to use the nonprofit food service funds, to the maximum extent practicable, to buy domestic commodities or products for Program meals. A “domestic commodity or product” is defined as one that is either produced in the U.S. or is processed in the U.S. substantially using agricultural commodities that are produced in the U.S. as provided in 7 CFR 210.21(d). The District may deviate from this general requirement only if:

- The product is not produced or manufactured in the U.S. in sufficient and reasonably available quantities of a satisfactory quality; or
- Competitive bids reveal the costs of a U.S. product are significantly higher than the non-domestic product.

C. Record Keeping

1. Record Retention

- a) The District maintains all records that fully show (1) the amount of funds under the grant or subgrant; (2) how the subgrantee uses those funds; (3) the total cost of each project; (4) the share of the total cost of each project provided from other sources; (5) other records to facilitate an effective audit; and (6) other records to show compliance with federal program requirements. 34 C.F.R.

§§ 76.730-.731 and §§ 75.730-.731. The District also maintains records of significant project experiences and results. 34 C.F.R. § 75.732. These records and accounts must be retained and made available for programmatic or financial audit.

- b) The U.S. Department of Education is authorized to recover any federal funds misspent within 5 years before the receipt of a program determination letter. 34 C.F.R. § 81.31(c). Schedule 10 (Local School Districts) and Schedule 24 (Local Agencies General Records) of the Nebraska Records Management Division as approved by the Nebraska Secretary of State/State Records Administrator requires the District to maintain records regarding federal awards for a minimum of six (6) years. Consequently, the District shall retain records for a minimum of six (6) years from the date on which the final Financial Status Report is submitted, unless otherwise notified in writing to extend the retention period by the awarding agency, cognizant agency for audit, oversight agency for audit, or cognizant agency for indirect costs. However, if any litigation, claim, or audit is started before the expiration of the record retention period, the records will be retained until all litigation, claims, or audit findings involving the records have been resolved and final action taken. 2 C.F.R. § 200.333.
- c) Records will be destroyed in compliance with Schedule 10, Schedule 24, and State law. This includes the completion of a Records Disposition Report.

2. Maintenance of Procurement Records

- a) The District must maintain records sufficient to detail the history of all procurements. These records will include, but are not necessarily limited to the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, the basis for the contract price (including a cost or price analysis), and verification that the contractor is not suspended or debarred.
- b) Retention of procurement records shall be in accordance with applicable law and Board policy.

D. Privacy

The District has protections in place to ensure that the personal information of both students and employees is protected. These include the use of passwords that are changed on a regular basis; staff training on the requirements of the Family Educational Rights and Privacy Act (FERPA) and State confidentiality requirements; and training on identifying whether an individual requesting access to records has the right to the documentation.

Adopted on: _____

Revised on: _____

Reviewed on: _____

SUPERINTENDENT'S CONTRACT OF EMPLOYMENT SOUTHERN PUBLIC SCHOOLS

THIS CONTRACT is made by and between the Board of Education of Southern Public Schools, legally known as Gage County School District 34-0001, and referred to as "the Board" and "the school district" respectively, and to Christopher R. Prosocki, referred to herein as "the Superintendent". The Board agrees to employ the Superintendent, and the Superintendent agrees to accept such employment, subject to the terms and conditions set forth herein.

Section 1. Term of Contract. The Superintendent shall be employed for a period of two years beginning on **July 1, 2025** and expiring on **June 30, 2027**. References to "contract year" mean the period from July 1st through June 30th and shall consist of all days except Saturdays, Sundays, legal holidays and school calendar holidays.

Section 2. Renewal, Amendment or Nonrenewal of Contract. If a Board representative does not inform the Superintendent in writing on or before **the seventh day after the regular December board meeting** of the Board's intention to consider the nonrenewal or amendment of this contract, the contract will automatically renew for a period of **one year** from and after the expiration date provided in Section 1 of this contract. The Superintendent shall remind the Board in writing of this provision no later than **its regular November meeting** of each year of this contract and shall make the renewal of his employment contract an agenda item for the regular **December** board meeting during each year of this contract. At the time of each contract renewal and/or amendment, the Superintendent shall be responsible for taking all necessary steps to insure that the district has complied with the Superintendent Pay Transparency Act.

Section 3. Salary. The Superintendent's salary for the **2025-26** contract year shall be \$ **_____**. It shall be paid in 12 equal monthly installments beginning in the month of **July 2025**. The Board shall not reduce the Superintendent's salary during the term of the contract, but may increase it and/or the benefits during the term of this contract, as an amendment to the contract, without the amendment constituting of a new contract, requiring a hearing, or extending the term of this contract. This contract shall conform to the statutes and regulations governing deductions from compensation. The Superintendent authorizes the District to deduct or withhold from each and every period of pay any amounts necessary to offset any damages caused by the Superintendent or the value of property or money entrusted to the Superintendent or owed by the Superintendent to the District during the course of or as a result of the Superintendent's employment, if such property or money have not properly been returned to the District. The school district shall withhold other deductions as the Superintendent and Board may agree.

Section 4. Professional Status. The Superintendent affirms that he is not under contract with any other board of education covering any part or all of the term provided in this contract. Throughout the contract term, he will hold a valid and appropriate certificate to act as a superintendent of schools in the State of Nebraska which he will register and

maintain on file in the school district's central administrative office. This contract shall not be valid and the Board will not compensate the Superintendent for any service performed prior to the date that he registers his certificate. The Superintendent represents that: (1) all information he provided in connection with his application for employment with the District was true and accurate at the time of application, and if there is or has been a material change in such information, he will advise the Board immediately; (2) he has never been convicted of or plead no contest to, a felony as defined in Title 92, Chapter 21, Sections 003.11 and 003.13 of the Nebraska Administrative Code ("Rule 21"), or any offense involving moral turpitude, abuse, neglect, or sexual misconduct, as defined in Title 92, Chapter 21, Sections 003.12 and 003.13 of the Nebraska Administrative Code; and (3) he has not had any professional licenses or certificates suspended or revoked.

Section 5. Superintendent's Duties. The Superintendent's duties shall be as prescribed by statute and by Board policies, rules, regulations and directives. The Superintendent agrees to devote his time, skill, labor and attention to his duties throughout the contract term. He shall be subject to the direction and control of the Board at all times and shall perform such administrative duties as the Board assigns to him. By agreement with the Board, he may undertake consultative work, speaking engagements, writing, lecturing, or other professional duties and obligations as long as they do not interfere with carrying out his duties and obligations to the school district.

Section 6. Board-Superintendent Relationship. The Board shall be primarily responsible for formulating and adopting policy. The Superintendent shall be the chief administrative officer for the district and shall be responsible for implementing Board policy. He shall organize the administrative and supervisory staff, and select, place, and transfer personnel with the concurrence of the Board. He is responsible for administering the instruction of students and the business affairs of the school district. The Board members agree, individually and collectively, to promptly refer all criticisms, complaints, and suggestions called to their attention to the Superintendent for action, study and/or recommendation, as appropriate.

Section 7. Cancellation or Mid-Term Amendment. The Board may cancel or amend this contract during its term for any of the following reasons: (a) the cancellation, termination, revocation, or suspension of the Superintendent's certificate (Nebraska Administrative and Supervisory Certificate, or the Nebraska Professional Administrative and Supervisory Certificate) by the State Board of Education; (b) any of the reasons set forth in this contract; (c) the breach of any of the material provisions of this contract; (d) incompetence; (e) neglect of duty; (f) unprofessional conduct; (g) insubordination; (h) conduct involving moral turpitude; (i) physical or mental incapacity; (j) immorality; (k) conviction of a felony; (l) any conduct that substantially interferes with the Superintendent's continued performance of his duties; (m) any arrest, criminal charge, or criminal conviction of Superintendent or the failure to report the same; (n) any filing against the Superintendent under Neb. Rev. Stat. Section 43-247 or any other provision of the Nebraska Juvenile Code for child abuse and/or neglect or the failure to report the same; (o) knowingly falsifying school district records or documents; (p) misrepresentation

of fact to the district and its personnel in the conduct of the district's official business; (q) the use or possession of illegal drugs or controlled substances except as prescribed by a physician; or (r) being under the influence of illegal drugs, controlled substances, or alcohol while on school grounds, at school events, or in a vehicle owned, leased or contracted by the district except as prescribed by a physician. The procedures for cancellation or amendment shall be in accordance with state statutes. The parties agree that the Superintendent's failure to comply with his duties under the renewal and evaluation sections of this Agreement shall constitute a material breach of this contract.

Section 8. Disability. If the Superintendent is unable to perform his duties by reason of illness, accident or other disability beyond his control, and the disability continues for more than six (6) months, or if the disability is permanent, irreparable, or of such a nature as to make performance of his duties impossible, the Board may initiate action to cancel this contract, whereupon the respective rights, duties and obligations of the parties here under shall terminate, with the exception of any benefits to be paid to the Superintendent under any insurance coverage furnished by the district.

Section 9. Transportation. The Board shall provide the Superintendent with transportation or reimburse him for mileage required in the performance of his official duties at the rate approved by the Board for district transportation. Provided, the Superintendent shall not be paid for mileage incurred in driving from his residence to the school or from the school to his residence.

Section 10. Fringe Benefits. The board shall provide the Superintendent with the following fringe benefits:

a. Health Insurance. The Board shall provide one hundred percent of a family health/family dental insurance policy that is the same as the Blue Cross/Blue Shield Educator's Health Alliance Insurance coverage provided to members of the Southern Education Association as cash in lieu.

b. Sick Leave. The Superintendent shall be entitled to 12 days of sick leave per year which may accumulate to a total of 50 days pursuant to board policy. The Board will pay for unused sick leave days **beyond the maximum accumulated days at the substitute rate**. If he qualifies for disability pay under the long-term disability policy, he shall be required to take the disability pay instead of sick leave pay.

c. Vacation Leave. The Superintendent shall have twenty (20) vacation days for the **2025-26** contract year which he may use at times he chooses so long as his absence does not interfere with the proper performance of his duties. Any extended vacation period while school is in session will require advance approval by the Board, and the parties will cooperate in arranging vacation time so as to cause the least inconvenience to the normal operation of the District. After the **2024-25** contract year, the Board shall give the Superintendent the number of days necessary to restore his

total to twenty (20) days. For example, if he uses 12 days of vacation one year, the board will provide him with 12 days the following year to bring his total to 20 days. The Superintendent shall develop a system for recording his use of vacation days and shall keep such records current and on file in the District's central office. The Superintendent shall keep complete and accurate records of his vacation days and shall provide the Board of Education with a report of his accumulated vacation days at least quarterly. The Board may require him to use his vacation days and shall compensate him for unused vacation days upon the conclusion of his employment.

d. Personal Leave. The Superintendent shall have three (3) personal days for the 2025-26 contract year which he may use at times he chooses so long as his absence does not interfere with the proper performance of his duties. After the 2024-25 contract year, the Board shall give the Superintendent the number of days necessary to restore his total to three (3) days. The Superintendent shall keep complete and accurate records of his personal days and shall provide the Board of Education with a report of his accumulated personal days at least quarterly. The Board may require him to use his personal days and shall compensate him for unused personal days upon the conclusion of his employment.

e. Disability Insurance. The Superintendent shall be required to purchase disability insurance from the school district's carrier at his own expense. The Board will increase his compensation by the amount of this premium cost.

f. Professional Development. The Superintendent is expected to continue his professional development and to participate in relevant learning experiences. With the approval of the Superintendent or Board, he may attend appropriate professional meetings at the local and state level; and the Board will pay for valid expenses of attendance.

g. Professional Dues. The school district will pay the annual dues for the Superintendent's membership in the following organizations: state administrator organizations through the AASA, NACIA, NCSA, Nebraska Schoolmasters, and local community organizations.

h. Professional Publications. The school district will pay the annual subscription fees for the publications of the organizations in the preceding paragraph.

i. Cell Phone. The Superintendent shall be required to purchase and maintain a cellular phone so that he can be reached at all times for work-related emergencies or while away from school grounds during the work day. The School District will reimburse the Superintendent up to a maximum

of \$100 per month for the actual cost of a cellular phone service plan and the district will provide the Superintendent with a stipend every two years to cover the expense of purchasing a cell phone.

Section 11. No Penalty for Release or Resignation. There shall not be a penalty for the release or resignation of the Superintendent from this contract; provided no resignation shall become effective until expiration of the contract unless it is accepted by the Board, and the Board shall fix the date at which the resignation shall take effect.

Section 12. Compensation upon Termination and Credit for Accrued Vacation. Upon lawful termination of this contract for any reason, the compensation to be paid hereunder shall be an amount which bears the same ratio to the annual salary specified as the number of months or fraction thereof to the date of such termination bears to the 12 months in the annual salary period in which termination occurs. The Superintendent shall refund any portion of the salary he was paid but had not earned prior to the date of termination of this contract. He shall be paid for any unused vacation days at the daily compensation rate in effect at the time of termination of employment.

Section 13. Evaluation. The Board shall evaluate the Superintendent twice during his first year of employment and at least once each year thereafter. The yearly evaluations after the first year of employment shall occur no later than the **regular November meeting**. The Superintendent shall: remind the Board members in writing of this provision no later than its **regular October meeting**; make his evaluation an agenda item for the regular **November** board meeting during each year of this contract; and provide them with the written evaluation instrument that is on file with the Nebraska Department of Education.

Section 14. Legal Actions. The Board will support the Superintendent if there is a legal dispute caused by his carrying out his duties properly. If a legal action, including a complaint to the Commissioner of Education (a professional practice complaint alleging a violation of Rule 27 of the Department of Education), is threatened or filed against the Superintendent as a result of his performance of his duties or his position as Superintendent of the district, the Board will provide him with a legal defense to the maximum extent permitted by law so long as he acted in good faith and in a manner which he reasonably believes to be in or not opposed to the best interests of the district and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was unlawful.

Section 15. Physical or Mental Examination. The Board may require the Superintendent to undergo a physical or mental examination by a physician and/or psychologist of the Board's choosing. In deference to the requirements of the Americans with Disabilities Act and HIPAA, the physician's or psychologist's report to the Board must address whether the Superintendent is able to perform the "essential functions" of his position.

Section 16. Residence/Domicile in School District. The Superintendent shall have his domicile and principal residence within the boundaries of the District as they exist on the first duty day for the Superintendent under the terms of this contract; and, the Superintendent shall maintain his domicile and residence within the boundaries of the District during the term of this agreement, or any renewal, amendment, or continuation thereof, except as otherwise provided herein. It is the purpose of this paragraph to require the Superintendent to, at all times during such employment, live and maintain his domicile and principal place of residence in the District to encourage the Superintendent: (1) to be highly motivated and deeply committed to the District's educational system; (2) to speak to and vote on ballot issues affecting the District as a legal voter of the District; (3) to be involved in school and community activities bringing him in contact with parents and community leaders and be committed to the future of the District and its schools; (4) to be accessible to parents and students, and allow parents and students to become personally acquainted with the Superintendent; and, (5) to gain sympathy and understanding for the cultural basis of the community, and the social, economic, and environmental problems of the children of the school community and are thus less likely to be considered isolated from the community in which he is the educational leader.

Section 17. Governing Laws. The parties shall be governed by all applicable state and federal laws, rules, and regulations in performance of their respective duties and obligations under this contract.

Section 18. Amendments to be in Writing. This contract may be modified or amended only by a writing duly authorized and executed by the Superintendent and the Board.

Section 19. Severability. If any portion of this contract shall be declared invalid or unenforceable by a court of competent jurisdiction, such declaration shall not affect the validity or enforcement of the remaining provisions of this contract.

IN WITNESS WHEREOF, the parties have executed this contract on the dates indicated below.

Executed by the Board this **9 day of December, 2024.**

President, Board of Education

Secretary, Board of Education

Executed by the Superintendent this **9 day of December, 2024.**

Superintendent