

Parents' Reference Guide to

January 2003

Standards

in Poudre School District



Language Arts

Math

Science

Geography

History

Academic Standards for Kindergarten through Grade Six



Mission

Poudre School District will promote a safe environment while leading an accountable learning community which encourages all students to achieve, to their highest potential, the knowledge, skills and commitment needed to be fulfilled, productive members of a society in a changing world.



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Dear Parent,

Poudre School District is committed to providing high-quality education for all students. Being clear and consistent about what students should learn is necessary for quality classroom instruction and vital to monitoring your child's progress in school.

In 1993, the State of Colorado passed House Bill 1313, mandating that school districts teach to standards that meet or exceed model standards developed by the state. Poudre School District, with broad input from staff, parents and the community, developed district standards to improve student learning and to meet or exceed the mandates of House Bill 1313.

The *Parents' Guide to Standards* lists examples of what we expect your child to know and be able to do in kindergarten through sixth grade in the following subject areas:

- language arts
- mathematics
- science
- geography
- history

By referring to the standards listed for your child's grade level along with reviewing his or her schoolwork, reviewing formal assessments, and communicating closely with your child's teacher, you can see how well your child is meeting the standards listed in each subject area.

As partners, the district and parents can educate students to achieve at high levels. One of our roles is to communicate clearly to students and parents what students should be learning and to help them achieve by supporting their efforts at school and at home. As parents, you can take an active role in your children's learning by discussing their learning with them, setting high expectations, and communicating regularly with school.

As we move into the 21st Century, the expectations for students and our schools will continue to rise. Through a standards-driven system, we believe we can meet those high expectations and continue to improve student performance.

Don Unger, Ph.D.
Superintendent of Schools

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Note to parents

Please keep this publication as your reference guide to standards for the elementary curriculum. The guide is dynamic in that standards are continually being evaluated and revised by curriculum teams. An up-to-date version is available at your elementary school and on the Poudre School District web page at <http://www.psd.k12.co.us>



Commonly asked questions about standards

What are standards?

Standards are statements of what students should know and be able to do within each subject area. Standards are high and consistent expectations for all students.

This *Parent's Guide to Standards* lists subject areas for each grade level, with standards appropriate for that grade level. Under each standard you will find statements of what students should know or be able to do at that grade level.

Who determined these standards?

In 1993 the Colorado State Legislature directed the Colorado State Board of Education to develop model content standards. These model standards were developed over a two-year period with input from a large number of citizens throughout Colorado. The state board of education adopted these standards in reading/writing, mathematics, science, history and geography in 1995.

During the 1995-96 school year, Poudre School District developed standards with broad input from staff, parents and the community. These district standards, which meet or exceed the state standards, were adopted by our board of education in 1996. The district is currently writing standards in civics, economics, art, music, physical education, foreign language and all vocational areas for adoption by June 1999.

How are district standards being implemented in the schools?

Poudre School District began implementing district standards in the elementary schools during the 1996-97 school year. Full implementation for elementary grades will be phased in over the next five years.

Currently, students are assessed regularly in language arts (reading/writing) and mathematics. The district is developing assessments in the other content areas to be fully in place by the school year 2000-2001.

How do I know how my child is progressing?

Student progress toward meeting or exceeding standards is monitored in several ways. Teachers develop and use classroom activities and assessments that monitor progress in standards. The results are used to make decisions about students' instructional needs.

Poudre School District also administers district, state and national tests to students in various grade levels. Some district tests, such as the reading and mathematics "level tests" and a district writing assessment are aligned with standards and are currently being used at most grade levels. Other district assessments in such areas as science and social studies are under development and will be implemented during the next four years.

Reports summarizing students' test results are sent home to parents at the end of the year.

Information on the different types of tests and assessments administered to students can be found on pages 8 and 9.

What if my child doesn't meet the standards?

The existing assessments and those being developed are based on expected levels of student performance and indicate how well your child is performing on each of the standards. If your child is not performing at an expected level, the school will share that information with you and work with you to address any performance concerns to improve student learning.

Options for such students may include tutoring, extra help during extended learning times (outside the school day or year), practice work to complete at home, parent help, remedial instruction, peer tutoring, mentoring, computer-assisted education, informal or formal assessment of individual needs, and/or summer school.

What is the relationship of performance on standards and a graduation diploma?

The state legislature has not designated standards as a requirement for graduation. However, Poudre School District is currently considering what standards should be met in order for a student to receive a diploma.

The district anticipates that the Board of Education will set performance levels for certain core standards, such as reading/writing, oral communication, mathematics and science in order to receive a graduation diploma. Until all the assessments are in place to determine those competencies necessary for graduation, current graduation requirements will remain in force, and the student's level of performance on standards will be reported to parents and noted in a student's record.

My child has special needs. How do these standards apply to my child?

Students identified as having special education needs have an Individual Education Plan (IEP). Through the staffing process currently used for

special education students, the standards can be modified, accommodations may be made, or the standard might be waived depending on the needs of the student. Special education students are expected to meet the standards written for them in their IEP.

The needs of students whose performance exceeds standards are also addressed through various programming options available at each site.

Will standards improve education?

Poudre School District believes that all students should learn and perform at high levels. To keep our students competitive and to get the most from our investment in education, we have adopted rigorous expectations for what students should know and be able to do. By providing students, parents and teachers with clear and consistent expectations across all of our schools, we increase the likelihood that students will perform at even higher levels than they have in the past.

With the adoption of standards, *the focus of education becomes not just what teachers teach, but also what students learn*. As teachers focus their classroom efforts on students meeting/exceeding standards, the district supports student learning by helping teachers:

- apply effective instructional practices,
- use assessments more extensively to monitor student progress and to direct instruction,

- design and implement interventions for students needing more help to achieve standards or who are ready to work at more advanced levels, and
- use technology to help students achieve standards.

The district is also focused on helping students see the relevancy of what they learn in school to their daily lives and career goals.

How can I obtain more information about standards?

Contact your child's classroom teacher to learn more about classroom standards and your student's progress and ways in which you can provide supporting activities for your child.

The *Teacher's Guide to Standards*, available to view or to purchase, lists the same "main standards" as the parents' guide but includes all of the benchmarks, or "proficiencies," which are specific statements about what students should know at each grade level. The teacher's guide also lists "indicators" that describe exactly what a student should know or be able to do and how the benchmark should be performed at that grade level. Contact your school to view or purchase the *Teacher's Guide to Standards*.

To obtain information at the district level such as junior and senior high standards; national, state and district assessments; or graduation requirements, contact the Director of Curriculum/Instruction and Assessment at 490-3691 or view the PSD web site at <http://www.psd.k12.co.us>



Kindergarten

Language Arts

Math

Science

Geography

History

Parents' Reference Guide to
Standards
in Poudre School District

Language Arts

Standard 1 – Reading

Students read and understand a variety of materials.

- Connect the written word with personal experience.
- Explore language as a variety of materials are read: rhymes and poems, stories, directions, nonfiction materials, fairy tales and folk tales.
- Begin to identify beginning, middle, and end of a story, with support in a group.
- Begin to use word recognition strategies, with support and in a group.
- Use context clues, for example: pictures and text while reading and being read to.
- Use information from what they have learned to develop vocabulary.

Standard 2 – Writing and Speaking

Students write and speak for a variety of purposes and audiences.

- Share personal narrative through show and tell.
- Give and receive feedback, with prompting and support, by sharing, writing and speaking with others.
- Begin to form letters correctly with the use of manipulatives such as clay or cornmeal.
- Develop awareness of story elements, such as character, setting, problem and solution.

Standard 3 – Language Structure

Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization and spelling.

- Begin to develop awareness of basic modifiers in group writing and when speaking.
- Use simple sentences to communicate thoughts and ideas when speaking.
- Differentiate between capital and lower case letters, with support.
- Use letters to represent words.

Standard 4 – Thinking and Viewing

Students apply thinking skills to their reading, writing, speaking, listening and viewing.

- Practice listening skills, with support and in a group, in relation to understanding directions.

- Begin to use speaking and listening, in a group and with support, to define and solve problems.
- Begin to respond to oral presentations, in a group and with support, based on personal experience as a listener and speaker.

Standard 5 – Research

Students read to locate, select and make use of relevant information from a variety of media, reference, and technological sources.

- Begin to develop appropriate questions, in a group and with support, and identify likely resources.
- Begin to recognize organizational features of printed text, in a group and with support, for example: title, author and illustrator.

Standard 6 – Literature and Culture

Students read and recognize literature as a record and expression of cultural heritage.

- Listen to, respond to and discuss a variety of literature.
- Listen to classic literature.
- Listen to and respond to literature, in a group and with support, related to the heritage of the United States.

Math

Standard 1 – Number Sense

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Read, write, compare, order whole numbers up to ten
- Explore strategies for estimation
- Compare numbers less than 10 (less than, greater than).
- Associate numerals up to 10 with sets of objects.

Standard 2 – Patterns and Algebra

Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

- Recognize and identify number patterns when counting by 2's, 5's and 10's.

- Identify, reproduce, extend, create and describe simple patterns and sequences involving color, shape, size and rhythm.
- Correctly place data onto a given simple chart or graph.
- Identify common sets of characteristics of a set of objects.
- Place objects into the appropriate sets according to common characteristics.

Standard 3 – Statistics and Probability

Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.

- Represent data using concrete objects.
- Identify relevant information.
- Identify more or less on a pictograph.

Standard 4 – Geometry

Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Identify circles, squares, rectangles, triangles, ovals and diamonds (using familiar everyday objects, manipulating or pictures).
- Use familiar manipulatives to recognize shapes and their relationships, for example: pasta, boxes, blocks.
- Sort objects by size and shape.
- Recognize shapes of objects familiar to them in their environment (for example: circles, squares and triangles in classroom, home and sports).

Standard 5 – Measurement

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate and measure length using non-standard units (for example: hands, shoes, etc.).
- Compare and order objects to some attribute (for example: tallest to shortest, biggest to smallest).
- Demonstrate the process of measuring using a grid path.
- Without using measuring tools, describe the measures of familiar objects (for example: tall, taller, tallest; older, younger).
- Count the length of a given path, using the spaces on a grid.

Standard 6 – Computation

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems.

- Explore the conceptual meanings for addition and subtraction operations. (For example: If there are 8 boys and 7 girls, how many children are here today? If we have 15 children in the class and 2 are absent, how many children are here today?)
- Identify numbers from 1 to 20 from a series of numbers.
- Develop methods for estimating and computing with whole numbers by using physical models.
- Be exposed to the many methods that can be used for whole number calculation.

Science

Standard 1 – Scientific Investigation

Students understand the processes of scientific investigation and design as well as conduct, communicate about, and evaluate such investigations.

- Explore science in their environment through the use of five senses.
- Use simple scientific tools (magnifying glasses, tweezers, etc.).
- Observe, compare and describe structures of animals and plants.
- Communicate observations verbally and by drawing pictures.

Standard 2 – Physical Science

Students know and understand common properties, forms, and changes in matter and energy. (Focus: physics and chemistry)

- Compare objects according to different properties: size, shape, color, etc.
- Observe sun's energy (for example: solar calculator, heat-melt snow).
- Compare energy quantities (for example: hotter and colder).
- Describe orally or demonstrate the variety of ways that matter can be mixed or put together or changed (objects or substances), for example: clay, paint, paper.

Standard 3 – Life Science

Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: biology, anatomy, physiology, botany, zoology, ecology)

- Observe, compare and describe properties and parts of plants (root, leaf, stem).
- Study habitat, structure and behavior of a variety of animals (fish, snails, worms, sow bugs and roly pollys).
- Distinguish between healthy vs. unhealthy foods.
- Observe differences in appearance of humans as they grow over time.

Standard 4 – Earth and Space Science

Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: geology, meteorology, astronomy, oceanography)

Not addressed at this level.

Standard 5 – Science, Technology and Human Activity

Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.

- Name things used in the classroom that are from the Earth (for example: water, food, soil).
- Distinguish between recyclable and throw-away.
- Identify jobs people do in the school and the tools they use.
- Identify ways that an individual can take care of the Earth.

Standard 6 – Scientific Connections

Students understand that science involves a particular way of knowing and understanding common connections among scientific disciplines.

- Perform experiments with materials to notice change.
- Collect data gained from direct experience (for example: pets, dogs, cats, etc.).
- Compare data collected with other classmates.
- Characterize different science explorations in which the class participates (for example: studying living vs. non-living).

Geography

Standard 1 – People, Places and Environments

Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places and environments.

- Recognize the difference between map and globe.
- Identify land masses and large bodies of water on maps and globes.
- Locate on a classroom map where different activities take place.

Standard 2 – Regional Characteristics

Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

- Tell what is made by people and what is found in nature.
- Tell what can be found in a park.

Standard 3 – Earth

Students understand how physical processes shape Earth's surface patterns and systems.

- Describe the weather and how it affects us.
- Study the seasons and how they affect people, plants, animals.
- Observe how water takes on different forms in different weather.

Standard 4 – Economic, Political, Cultural and Social Processes

Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict.

- Discuss how family customs or celebration of holidays are similar or different.
- Discuss how types of houses, food, clothing, etc., vary around the world.
- List similarities/differences between life in large cities, Fort Collins and rural settings, using pictures, literature and experiences.

Standard 5 – Human Interactions

Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources.

- Discuss how pollution and litter affect the environment.
- Find ways to conserve and recycle/reuse/reduce at home and at school.

Standard 6 – Past, Present and Future

Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

Not addressed at this level.

Reading and writing are essential skills of social studies. The social studies curriculum is subdivided into disciplines. For clarity these are listed separately, yet in a kindergarten classroom these will often be taught within a larger thematic unit. This is called integration of subjects.

History

Standard 1 – Chronological Organization

Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.

- Use a calendar to distinguish between day, week, month and year.

Standard 2 – Historical Inquiry

Students know how to use the processes and resources of historical inquiry.

- Through literature, compare/contrast life in the past to life in the present.

Standard 3 – Diverse Societies

Students understand that societies are diverse and have changed over time.

- Discuss holidays and celebrations of different families and cultures.
- Find out about different cultures through literature.

Standard 4 – Science, Technology and Economic Activity

Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

- List ways that technology affects your life.

Standard 5 – Political Institutions and Theories

Students understand political institutions and theories that have developed and changed over time.

- Explain the need for classroom rules.
- Discuss why we celebrate national holidays: Martin Luther King, Jr. Day, President's Day, Thanksgiving.
- Learn the Pledge of Allegiance.

Standard 6 – Religion and Philosophy

Students know that religious and philosophical ideas have been powerful forces throughout history.

- Discuss ways different families celebrate holidays and beliefs of various peoples.

Reading and writing are essential skills of social studies. The social studies curriculum is subdivided into disciplines. For clarity these are listed separately, yet in a kindergarten classroom these will often be taught within a larger thematic unit. This is called integration of subjects.



First Grade

Language Arts

Math

Science

Geography

History

Parents' Reference Guide to
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Language Arts

Standard 1 – Reading

Students read and understand a variety of materials.

- Use comparing and contrasting as comprehension strategies.
- Identify, in a group, what is known and needs to be known about a topic before being read to.
- Begin to apply word recognition strategies and develop vocabulary, with support, while reading simple text and being read a variety of materials.
- Begin to develop reading strategies, in a group, for different reading purposes; identify organizational patterns of stories (for example: beginning, middle and end); and identify different purposes of reading.
- Begin to use word recognition strategies, for example:
 - vocabulary and background knowledge
 - sound-letter relationships/phonics (i.e., consonant and long and short vowel sounds, sounding out some words)
 - context clues, for example: pictures and sentence structure
- Use information from what they have learned to develop vocabulary.

Standard 2 – Writing and Speaking

Students write and speak for a variety of purposes and audiences.

- Begin to think of and develop ideas for a variety of writing and speaking purposes (for example: in a group and with support, develop and present a puppet show or flannel board story; at the end of a unit, write a fact or two learned).
- Share writing and speaking with others (for example: in Author's Chair).
- Begin to generate topics for writing and speaking and develop ideas and organize as planning writing and speaking. (Strategies may include brainstorming, peer conferencing, drawing and webbing.)
- Begin to write one or more sentences on a topic.
- Use vocabulary to communicate messages clearly when speaking and with support when writing.
- Develop awareness of words (strategies include introducing students to words with similar vowel sounds).

Standard 3 – Language Structure

Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization and spelling.

- Develop correct subject/verb agreement when speaking.
- Begin to use correct capitalization, with support in a group, at the beginning of sentences and with proper nouns.
- Begin to spell some phonetically regular words using dominant sounds heard.
- Identify long and short vowels.

Standard 4 – Thinking and Viewing

Students apply thinking skills to their reading, writing, speaking, listening and viewing.

- Make predictions and draw conclusions, in a group and with support, about stories when being read to and reading using illustrations, title, predictable text and context clues.
- Begin to formulate questions, in a group with support, about what has been read and what they hear, view and write.

Standard 5 – Research

Students read to locate, select and make use of relevant information from a variety of media, reference, and technological sources.

- Locate appropriate resources, in a group and with support, including books and wall charts.
- Alphabetize to the first letter as an aid in locating information.
- Begin to use organizational skills in a group and with support.

Standard 6 – Literature and Culture

Students read and recognize literature as a record and expression of cultural heritage.

- Listen to and, with support, read, respond to and discuss a variety of literature.
- Listen to, respond to and discuss literature, with support and in a group, as a way to explore similarities and differences among stories from a variety of cultures.

Math

Standard 1 – Number Sense

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Read, write, compare, order whole numbers up to 99.
- Demonstrate one-to-one correspondence using concrete objects.
- Use manipulatives, a number line and place value manipulatives to generate different representations for a given number.
- Tell a story that explains a numerical situation.
- Understand that order does not affect addition (commutative property of addition).
- Identify numbers as odd or even; count by 2's, 5's and 10's.

Standard 2 – Patterns and Algebra

Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

- Use manipulatives, words, simple tables, graphs and charts to describe patterns and other relationships.
- Observe and explain how a change in one quantity can produce a change in another (for example: the relationship between the number of bicycles and the number of wheels).
- Label sets according to common characteristics, for example: color, size and shape.
- Determine a rule that shows how to continue a pattern made of shapes.

Standard 3 – Statistics and Probability

Students use data collection and analysis, statistics and probability in problem-solving situations and communicate the reasoning used in solving these problems.

- Record data using pictorial representations.
- Obtain information and relationships from graphs.
- Use a bar graph to compare data.

Standard 4 – Geometry

Students use geometric concepts, properties and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Sort and classify objects by shape (using familiar everyday objects, manipulating or pictures).
- Follow directional diagrams (for example: draw paths on grid squares from one point to another and determine their length).
- Use spatial reasoning to estimate differences in volume and area.

Standard 5 – Measurement

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate and measure length using non-standard units (for example: steps, strides, etc.).
- Read a clock (hour intervals) and estimate time duration (how much time has passed) using standard and non-standard units.
- Compare relative perimeter and area using non-standard units.
- Compare relative temperature (for example: hotter than, colder than).
- Demonstrate the process of measuring length using a grid path and time using a calendar.
- Compare the measures of familiar objects (for example: bigger than, older than, taller than) without using measuring tools.

Standard 6 – Computation

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper and pencil, calculators and computers in problem-solving situations and communicate the reasoning used in solving these problems.

- Demonstrate conceptual meaning for addition and subtraction operations using whole numbers. (For example: When two sets are combined it results in a larger set. When a portion of a set is removed the remaining set is smaller.)
- Demonstrate conceptual meaning and proficiency with basic addition facts (1-10).
- Develop methods to explain estimation with whole numbers when adding.
- Use various methods for computing whole numbers in problem-solving situations from mental arithmetic, estimation, paper and pencil algorithms, calculator and other mechanical methods for addition.

Science

Standard 1 – Scientific Investigation

Students understand the processes of scientific investigation and design as well as conduct, communicate about and evaluate such investigations.

- Communicate observations on calendars and in journals.
- Follow a plan to conduct an investigation.
- Communicate orally and through art.

Standard 2 — Physical Science

Students know and understand common properties, forms and changes in matter and energy. (Focus: physics and chemistry)

- Identify factors that affect motion (mass, size, texture).
- Make observations and gather data on quantities associated with energy, movement and change.
- Describe interactions that produce changes in a system: balance, stability, mixtures, etc.
- Observe and compare stable and unstable, systems, rotation, spinning and rolling through the study of balance, stability and motion.

Standard 3 – Life Science

Students know and understand the characteristics and structure of living things, the processes of life and how living things interact with each other and their environment. (Focus: biology, anatomy, physiology, botany, zoology, ecology)

- Observe and describe the changes that occur as plants grow and develop.
- Understand living vs. non-living.
- Recognize that green plants need energy from sunlight in addition to various raw materials.
- Recognize the structure of the food pyramid.

Standard 4 – Earth and Space Science

Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: geology, meteorology, astronomy, oceanography)

- Identify changes in weather by participating in the decision-making process of dressing appropriately for various weather conditions.
- Collect and record data on temperature and precipitation.
- Observe and name three common cloud formations: Cirrus, Stratus and Cumulus.
- Compare seasons.

Standard 5 – Science, Technology and Human Activity

Students know and understand interrelationships among science, technology and human activity and how they can affect the world.

- Identify the Earth's resources that first graders use.
- As a team, invent a device that solves an age-appropriate problem.
- Relate technology used by parents, friends and neighbors in their careers.
- Know that some objects occur in nature, whereas others have been designed and made by people to solve human problems.

Standard 6 – Scientific Concepts

Students understand that science involves a particular way of knowing and understanding common connections among scientific disciplines.

- Continue to experiment.
- Collect data gained from direct experience and record on individual charts.
- Recognize that when a scientific experiment is done in the same way in different locations, the experiment generally has the same results.
- Make predictions based upon identified patterns (for example: weather).

Geography

Standard 1 – People, Places and Environments

Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places and environments.

- Make and use map of classroom.
- Locate places on a school map.
- Trace route to different places on school map.
- Locate Fort Collins on a Colorado map.
- Locate Colorado on a United States map.

Standard 2 – Regional Characteristics

Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

- Describe how places look between school and home (for example: hilly, flat, river, pond).
- Discuss where humans have changed the Earth in local neighborhoods.
- Describe a park, a farm, a city and a neighborhood.
- Compare and contrast a farm/ranch and a city.

Standard 3 – Earth

Students understand how physical processes shape Earth's surface patterns and systems.

- Observe and describe weather and its effects on the environment.
- Identify Earth's features on maps (for example: rivers, oceans).
- Discuss what happens to the Earth in a flood, earthquake or volcanic eruption.
- Identify local physical features (for example: hills, drainage ditch).

Standard 4 – Economic, Political, Cultural and Social Processes

Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict.

- Discuss the reason people come to school in different ways (for example: walk, bus, car).
- Identify elements of culture (for example: food, dress, traditions, education, jobs, family, religion, music and arts).
- Introduce a map to locate where traditions have come from.
- Identify places where their families acquire basic goods/services.
- Discuss reasons why people might settle in rural or urban settings (using literature).
- Discuss and list why there are boundaries on the school playground.

Standard 5 – Human Interactions

Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources.

- Identify the impact of human activity on different areas of the playground.
- Continue to discuss ways people deal with natural environment (for example: weather, pollution and litter).

- Discuss how recreational activities are done in places due to physical environment (for example: skiing, sledding, boating, hiking).
- Classify activities as recycle, reuse or reduce.

Standard 6 – Past, Present and Future

Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

- Read literature about children/families living in the past.

Reading and writing are essential skills of social studies. The social studies curriculum is subdivided into disciplines. For clarity these are listed separately, yet in a first-grade classroom these will often be taught within a larger thematic unit. This is called integration of subjects.

History

Standard 1 – Chronological Organization

Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.

- Differentiate broad categories of historical time (for example: long, long ago; yesterday; today; tomorrow).
- Sequence events in literature and construct a time line.

Standard 2 – Historical Inquiry

Students know how to use the processes and resources of historical inquiry.

- Pose questions about the past—begin to pose questions about their own lives and their own family history.
- Recognize how writing, photographs and graphs show events in the past.
- Identify when a story takes place (past, present, future).
- Identify how Native Americans kept their history.

Standard 3 – Diverse Societies

Students understand that societies are diverse and have changed over time.

- Discuss how the presence, interactions and contributions of Native Americans have affected our lives.

- Identify roles of family members.
- Use literature to show that there are families and cultures around the world.

Standard 4 – Science, Technology and Economic Activity

Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

- Identify scientific and technological developments that affect family or school environment (for example: computers, copy machines, telephones, televisions, dishwashers, cars).
- Give examples of different ways that resources can be allocated.
- Count money.

Standard 5 – Political Institutions and Theories

Students understand political institutions and theories that have developed and changed over time.

- Using literature, examine different kinds of leaders (for example: king, queen, dictator, president, mayor, governor).
- Discuss and identify importance of Johnny Appleseed, Pilgrims, Squanto, Martin Luther King, Jr., current president, George Washington, Abraham Lincoln, Betsy Ross.
- Discuss and identify importance and historical contest of Pledge of Allegiance, Columbus Day, Thanksgiving, Martin Luther King, Jr. Day, Valentine's Day, Earth Day, Independence Day, American flag, eagle.
- Discuss how various groups have gained or lost political freedom.

Standard 6 – Religion and Philosophy

Students know that religious and philosophical ideas have been powerful forces throughout history.

- Identify traditions in their families.
- Read and listen to literature, including multi-cultural, folk tales and ballads.
- Participate in various forms of expression (for example: folk dances, songs, games, visual arts).

Reading and writing are essential skills of social studies. The social studies curriculum is subdivided into disciplines. For clarity these are listed separately, yet in a first grade classroom these will often be taught within a larger thematic unit. This is called integration of subjects.



Second Grade

Language Arts

Math

Science

Geography

History

Parents' Reference Guide to
Standards
in Poudre School District

Language Arts

Standard 1 – Reading

Students read and understand a variety of materials

- Use sound-letter relationships and phonics as word recognition strategies.
- Identify what they already know and need to know, in a group, about a topic before they read about it.
- Apply word recognition strategies when reading a variety of materials: rhymes and poems, stories, directions, nonfiction material, fairy tales and folk tales, including those from other communities and cultures.
- Use information from reading to enhance vocabulary.
- Use information from what they have learned to develop vocabulary.

Standard 2 – Writing and Speaking

Students write and speak for a variety of purposes and audiences.

- Begin to adapt word choice, with support, to various audiences.
- Give and receive feedback, with prompting and support, as an aid in beginning to edit, revise and produce a finished product in speech and writing for a larger audience or an audience beyond the classroom.
- Use story parts (beginning, middle and end).
- Begin using descriptive vocabulary and, with support, begin to use figures of speech to communicate a clear message.
- Develop awareness of nouns, verbs and homonyms.

Standard 3 – Language Structure

Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization and spelling.

- Use correct subject/verb agreement when writing, with support.
- Explore using compound sentences when writing in a group.
- Begin to use correct basic capitalization and basic ending punctuation of simple sentences.
- Correctly spell frequently used words much of the time.

Standard 4 – Thinking and Viewing

Students apply thinking skills to their reading, writing, speaking, listening and viewing.

- Use reading, writing, speaking, and listening, with support, to define and solve problems.
- Begin to differentiate between fact and opinion, with support, in written and spoken forms.
- Begin to recognize author's point of view, in a group and with support.

Standard 5 – Research

Students read to locate, select and make use of relevant information from a variety of media, reference, and technological sources.

- Recognize organizational features of printed text (for example: title, author, illustrator, title page, page numbering, table of contents, structure of text, index, chapter headings, copyright information, alphabetizing) and some features of electronic media.
- Begin to sort information, with support, as it relates to a specific topic or purpose.
- Begin to give credit for borrowed information, with support, by telling or listing sources (for example: book title and author).

Standard 6 – Literature and Culture

Students read and recognize literature as a record and expression of cultural heritage.

- Use literary terminology, for example: character, setting, problem, solution.
- Read, respond to and discuss a variety of literature, for example: fiction, rhymes and poems, non-fiction.
- Begin to read, respond to and discuss content area material, with support.

Math

Standard 1 – Number Sense

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Demonstrate one-to-one correspondence using concrete objects.
- Generate different representations for a given number.
- Identify and name common unit fractions.

- Use place value manipulatives to represent decimal numbers and represent money as decimal numerals.
- Use place value manipulatives to demonstrate ones, tens and hundreds place for numbers 0 to 999.
- Read, name, count, order time in intervals of minutes, hours, days, months and years.

Standard 2 – Patterns and Algebra

Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

- Identify, reproduce, extend, create, and describe more complex patterns and sequences involving color, shape, size, and number.
- Construct, use and interpret simple tables, graphs and charts to describe relationships and solve problems.
- Use $>$, $<$ and $=$ to compare two sets of numbers.
- Determine a rule that describes the generation of a sequence of shapes and numbers.

Standard 3 – Statistics and Probability

Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.

- Collect data; place information on a graph with labeled axis.
- Obtain information from bar graphs.
- Given data displayed in different kinds of graphs, determine greatest and least, greater than and less than.
- Generate data from random events.
- Use the concept of chance to determine possible outcomes.

Standard 4 – Geometry

Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Classify various two-dimensional geometric shapes according to given attributes (using familiar, everyday objects, manipulatives or pictures).

Standard 5 – Measurement

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate and measure length (whole inch and whole centimeter) and hour (hour and half-hour intervals).
- Demonstrate the process of measuring length, time and money, given the appropriate tools.
- Without using tools, describe and compare the measure of familiar objects (for example: heights of friends, weights of books, inside vs. outside temperatures).
- Use geometric figures to demonstrate the terms “greater than” and “less than” as they relate to measurement and number sense.
- Correctly identify and classify shapes within their environment.

Standard 6 – Computation

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems.

- Demonstrate conceptual meaning for addition and subtraction operations using whole numbers (for example: when two sets are combined it results in a larger set; when a portion of a set is removed the remaining set is smaller).
- Demonstrate the conceptual meaning of fractions, using a physical model, with the ability to apply the fraction $\frac{1}{2}$ to a problem-solving situation.
- Demonstrate conceptual meaning and proficiency with basic addition and subtraction facts (for example: 2 digit without remaining).
- Develop methods to explain estimation with whole numbers when adding and subtracting (all basic facts).

Science

Standard 1 – Scientific Investigation

Students understand the processes of scientific investigation and design as well as conduct, communicate about, and evaluate such investigations.

- As a class, ask questions and state predictions (hypothesis) that can be addressed through scientific investigation (scientific method).
- As a class, determine variable and controls.

- As a class, select and use the tools necessary to solve the problem.
- As a class, observe and give a reasonable explanation for data collected.

Standard 2 – Physical Science

Students know and understand common properties, forms, and changes in matter and energy. (Focus: physics and chemistry)

- Know that objects can be described and classified by their composition and physical properties.
- Explore properties of liquid and solids.

Standard 3 – Life Science

Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: biology, anatomy, physiology, botany, zoology, ecology)

- Observe and compare the needs, structure, behavior and life cycles of a variety of insects: milkweed, bugs, butterflies, silkworms.
- Compare the life styles of various insects' habitats, place in the food chain, who eats them, who they eat.
- Identify characteristics common to vertebrates.
- Know that there is variation among individuals within a population.

Standard 4 – Earth and Space Science

Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: geology, meteorology, astronomy, oceanography)

- Identify uses of rocks and soils.
- Recognize that fossils are evidence of past life.
- Know that Earth materials consist of solid rocks, soils, liquid water and the gases of the atmosphere.
- Investigate properties of clay and soil.

Standard 5 – Science, Technology and Human Activity

Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.

- Recognize renewable and non renewable earth resources.

- Describe a resource-related community activity in which you can participate.
- Describe technology used for careers in your community.
- Identify activities that benefit the community in which students can participate.

Standard 6 – Scientific Connections

Students understand that science involves a particular way of knowing and understanding common connections among scientific disciplines.

- Continue to collect data gained from direct experience and record on individual charts.
- Recognize that systems involve both living and non-living things.
- Organize and classify scientific information (gain an awareness of various science disciplines).
- Understand that it is helpful to work with a team in science and to share findings with others.

Geography

Standard 1 – People, Places and Environments

Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places and environments.

- Understand different uses of world, U.S., state, and community maps.
- Use a globe to locate continents and oceans.
- Apply direction to school building N/S/E/W.
- Identify industrial, commercial, residential, rural and recreational areas of the community.

Standard 2 – Regional Characteristics

Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

- Compare and contrast rural life vs. city life.
- Develop awareness of different uses for areas, for example: parks.

Standard 3 – Earth

Students understand how physical processes shape Earth's surface patterns and systems.

- Describe the water cycle.
- Observe the seasons.
- Observe the length of daylight during the seasons.
- Gain awareness of the calendar and seasons.
- Identify birds and common animals of Colorado

Standard 4 – Economic, Political, Cultural and Social Processes

Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict.

- Give reasons why Camp Collins relocated to the Fort Collins area.
- Give reasons why people came to Fort Collins and/or local community in the beginning.
- Describe the past and present forms of communication and transportation used in the local community.
- Describe how local communities work together and deal with conflict.

Standard 5 – Human Interactions

Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources.

- Discuss the making of Horsetooth Reservoir to provide water for the local areas.
- Discuss local community growth.
- List some natural resources and give examples of what can be recycled.

Standard 6 – Past, Present and Future

Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

- Make a time line, as a class or individuals, of Fort Collins and/or local community history.
- Read literature about children living in the past.

Reading and writing are essential skills of social studies. The social studies curriculum is subdivided into disciplines. For clarity these are listed separately, yet in a third-grade classroom these will often be taught within a larger thematic unit. This is called integration of subjects.

History

Standard 1 – Chronological Organization

Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.

- Distinguish between past, present and future time in the community.
- Begin to construct a brief oral narrative describing, in sequence a past event.

Standard 2 – Historical Inquiry

Students know how to use the processes and resources of historical inquiry.

- Pose questions about the history of the community.
- Identify the main idea of historical stories.
- Identify where historical information came from.
- Begin to make connections between the past and present in Fort Collins and/or local community's history.

Standard 3 – Diverse Societies

Students understand that societies are diverse and have changed over time.

- Identify cultural heritage evident in your community.
- Explain the cultural origins of place (for example: names in the community).

Standard 4 – Science, Technology and Economic Activity

Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

- Describe economic needs and wants of a community (for example: education, recreation, transportation, city services).

Standard 5 – Political Institutions and Theories

Students understand political institutions and theories that have developed and changed over time.

- Give examples of various ways decisions are made: majority vote, compromise, one person.
- Describe the people who make decisions in the city government.

Standard 6 – Religion and Philosophy

Students know that religious and philosophical ideas have been powerful forces throughout history.

- Recite the Pledge of Allegiance and recognize it as a statement of our country's foundation.
- Read and listen to history, daily life and beliefs of people who settled in Fort Collins and /or local community.

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Third Grade

Language Arts

Math

Science

Geography

History

Parents' Reference Guide to
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Language Arts

Standard 1 – Reading

Students read and understand a variety of materials

- Use sound-letter relationships and phonics as word recognition strategies.
- Make connections between the reading and what is already known through experiences such as group discussions and journal writing.
- Use comprehension strategies, with support. For example:
 - comparing/contrasting
 - developing awareness of text structure
 - identifying author's purpose
 - identifying main ideas
 - inferring
 - predicting
 - previewing
 - summarizing
 - recognizing the use of figures of speech
 - re-reading
 - researching new material
- Select appropriate reading materials based on interest and readability.
- Continue to develop reading fluency and self-correct reading errors.
- Use information from what they have learned to develop vocabulary.

Standard 2 – Writing and Speaking

Students write and speak for a variety of purposes and audiences.

- Draft, revise, edit and proofread own writing, with prompting and support.
- Sequence events appropriately.
- Continue to develop awareness of homonyms, antonyms and synonyms.
- Write in cursive style.
- Begin to use the computer for word processing.

Standard 3 – Language Structure

Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization and spelling.

- Use modifiers in writing and speaking.
- Use simple sentences and, with support, compound sentences in writing and speaking.
- Begin to use some basic internal punctuation.
- Begin to use abbreviations.
- Use resources to obtain correct spelling, for example: books, word banks, charts, dictionaries.
- Use root words, prefixes and suffixes.

Standard 4 – Thinking and Viewing

Students apply thinking skills to their reading, writing, speaking, listening and viewing.

- Begin to predict and draw conclusions about stories using illustrations, title, context, captions, chapter headings.
- Begin to formulate questions about what they read, write, hear and view.
- Begin to recognize author's point of view.

Standard 5 – Research

Students read to locate, select and make use of relevant information from a variety of media, reference, and technological sources.

- Locate appropriate resources, in a group (for example: encyclopedias, atlases, non-fiction books and electronic media).
- Alphabetize to the third letter as an aid in locating information.
- Begin to use organizational skills, for example: highlighting main ideas.

Standard 6 – Literature and Culture

Students read and recognize literature as a record and expression of cultural heritage.

- Use literary terminology, for example: character, setting, problem, solution, and begin to use plot.
- Begin to use new vocabulary from literature in other contexts.
- Listen to and read some classic literature and begin to recognize concept of classic or enduring literature.

- Begin to read, respond to, and discuss, in a group and with support, literature related to the heritage of the United States.

Math

Standard 1 – Number Sense

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Represent a given number with place value manipulatives (including decimals and negatives).
- Represent decimals as fractions and fractions as decimals by using money.
- Read, write, order, compare numerals 0 to 9,999 including decimals and fractions.
- Use estimation for mental arithmetic in addition and subtraction.

Standard 2 – Patterns and Algebra

Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

- Identify, reproduce, extend, create and describe simple patterns and sequences involving whole numbers, negative numbers, fractions and decimals.
- Construct, use and interpret table, graphs and charts to describe relationships and solve problems.
- Use the concept that subtraction is the inverse of addition to solve problems.

Standard 3 – Statistics and Probability

Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.

- Construct, read and interpret displays of data including tables, charts, pictographs and bar graphs.
- Given a range of numbers, order the numbers, identify the middle of the range and the number which occurs most often.
- Find the average (mean) of two numbers using concrete representations.

Standard 4 – Geometry

Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Identify, compare and determine the perimeter and areas of shapes on a grid.
- Identify, sort and classify solid geometric shapes (cones, spheres, cylinders and cubes).
- Identify shapes that have a line of symmetry.
- Determine lines of symmetry for various shapes.
- Identify circular, triangular, square and rectangular objects and recreate their shapes (for example: drawings, geoboards, etc.) and name that particular shape.

Standard 5 – Measurement

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate and measure length, perimeter, time (5 minute intervals), capacity (identify and order by size pints, cups, quarts and gallons) using standard units, with an understanding of reasonableness of results.
- Demonstrate the process of measuring length, time, temperature and money in a given situation.

Standard 6 – Computation

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems.

- Demonstrate conceptual meanings for addition, subtraction and multiplication operations using whole numbers.
- Demonstrate conceptual meaning and proficiency with basic facts for addition, subtraction (2 digit with renaming) and multiplication (1 digit by 1 digit).
- Develop methods to explain estimation procedures for adding and subtracting whole numbers with renaming and multiplying using all basic facts (1-10).
- Select and use appropriate methods for computing with whole numbers in problem-solving situations from among mental arithmetic, estimation, paper-and-pencil algorithms, and calculator or other mechanical methods in addition, subtraction and multiplication.

Science

Standard 1 – Scientific Investigation

Students understand the processes of scientific investigation and design as well as conduct, communicate about, and evaluate such investigations.

- Ask questions and state predictions (hypothesis), in small groups, that can be addressed through scientific investigation (scientific method).
- Observe and give a reasonable explanation for data collected, while in small groups.
- Use tables, pictures and charts to explain in written form.
- Organize observations through writing, drawing and graphing.

Standard 2 – Physical Science

Students know and understand common properties, forms and changes in matter and energy. (Focus: physics and chemistry)

- Separate simple liquid mixtures with simple compositions (for example: oil and water).
- Investigate nature of sound and vibration.
- Explore mechanical energy.
- Observe how sound is created in different musical instruments.

Standard 3 – Life Science

Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: biology, anatomy, physiology, botany, zoology, ecology)

- Investigate basic needs for plants and animals.
- Investigate invertebrates' interaction with each other and with non-living parts of their habitat.
- Draw and describe food chains.

Standard 4 – Earth and Space Science

Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: geology, meteorology, astronomy, oceanography)

- Recognize the importance and uses of water (drinking, washing).

- Explore properties of water through experimentation (evaporation and condensation).
- Illustrate how water cycles in nature.
- Understand phases of moon, eclipse and differences between stars and planets.
- Explore how the Earth's position affects seasonal changes in different parts of the world.
- Identify basic components of our solar system.
- Describe the motion of Earth in relation to the sun (day, night and year).

Standard 5 – Science, Technology and Human Activity

Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.

- Recognize diversity of resources from all over the world that are used in Fort Collins.
- Describe a worldwide resource-related activity in which student can participate.
- Investigate technology used in various countries and cultures of the world.
- Categorize items into groups of natural objects and designed objects.

Standard 6 – Scientific Connections

Students understand that science involves a particular way of knowing and understanding common connections among scientific disciplines.

- Describe and compare the components and interrelationships of a simple system.
- Repeat science experiments to see if the same results occur.
- Compare knowledge gained from direct experience to knowledge gained indirectly (for example: collecting data about student heights and compare the results to similar data collected in another class or school).
- Compare a model to what it represents.

Geography

Standard 1 – People, Places and Environments

Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places and environments.

- Name cardinal and intermediate (medial) directions N, S, E, W, NE, NW, SE, SW.
- Identify latitude/longitude on a globe.

- Identify legend, key, symbol.
- Place continents on globe for spatial relationships.
- Identify seven continents and four oceans on a world map.
- Identify major geographic features on each continent.
- Use map keys to identify important places.
- Identify hemispheres, equator, and prime meridian on maps and globes.
- Use latitude and longitude to identify a specific location.

Standard 2 – Regional Characteristics

Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

- Discuss effects of people on the environment, exploration, colonization, industrialization, and urbanization (for example: mountains, grasslands, rain forests, deserts).
- Compare and contrast regions found throughout the world.

Standard 3 – Earth

Students understand how physical processes shape Earth's surface patterns and systems.

- Research and explain how plants and animals adapted to their physical environments (for example: rain forests, deserts, mountains, polar regions, grasslands, oceans).
- Discuss the atmosphere of the Earth.
- Look at the Earth's axis tilt for summer/winter and rotation/revolution in space.
- Identify wet regions.
- Identify desert regions.
- Identify polar regions.
- Identify volcanoes.
- Identify continental drift.
- Identify erosion.
- Understand water cycle, food chain and life cycle.
- Observe and describe weather differences in each area.
- Understand natural features and systems: land erosion, mountains, peninsulas, islands, air tornadoes, hurricanes, weather patterns, water, lakes, oceans, rivers.
- Compare plants and animals in different climate regions of the world (for example: rain forests, deserts, mountains, polar regions, plains, grasslands, oceans).

Standard 4 – Economic, Political, Cultural and Social Processes

Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict.

- Discuss climate, land formations, vegetation and how these affect the population distribution in the world.
- Discuss why people live where they do and why they settle among coasts and rivers first and then move inland.
- Use charts or map keys to compare and contrast cultures: homes, industry, literature, food, crops, customs, clothing, music, jobs, schools, art, family.
- List forms of communication and transportation in the local community and compare and contrast with other places in world.
- Identify factors of settlement and transportation: water, land for crops, safety, space, trees/wood, game for good.
- Discuss cooperation and peaceful relationships between countries and/or states.
- Discuss how conflict affects relationships between countries and/or states.

Standard 5 – Human Interactions

Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources.

- List advantages and disadvantages of modern technology on environment.
- Map resource distribution throughout world.

Standard 6 – Past, Present and Future

Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

- Use maps, pictures and resources to research how places have changed over time.
- Read stories about native peoples and contrast to how people live today in various parts of the world.
- Describe how volcanoes, continental drift and earthquakes have changed the surface of the Earth.

Reading and writing are essential skills of social studies. The social studies curriculum is subdivided into disciplines. For clarity these are listed separately, yet in a third-grade classroom these will often be taught within a larger thematic unit. This is called integration of subjects.

History

Standard 1 – Chronological Organization

Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.

- Create simple timelines of historical events.
- Write a narrative that chronologically organizes people or events in their family or school.

Standard 2 – Historical Inquiry

Students know how to use the processes and resources of historical inquiry.

- Pose questions about the history of a community as it relates to the 7 continents.
- Gather information about the past from fiction and nonfiction books, oral histories, photography, newspapers, and art work as it relates to the 7 continents.
- Identify the main ideas of a historical resource.
- Identify different cultural records as it relates to the 7 continents.
- Compare past and present-day traditions and events of cultures around the world.

Standard 3 – Diverse Societies

Students understand that societies are diverse and have changed over time.

- Identify ways that people from all continents have contributed to our state and community.
- Compare/contrast life in communities around the world.

Standard 4 – Science, Technology and Economic Activity

Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

- Describe the impact of irrigation, transportation and communication on various regions around the world.
- Identify individual achievements of scientists and inventors from many cultures.
- Identify movement factors to and from a community based on natural resources and economic wants and needs.

- Give examples of different ways that decisions are made about natural resources in different cultures.
- Give examples of systems of exchange in different cultures around the globe.

Standard 5 – Political Institutions and Theories

Students understand political institutions and theories that have developed and changed over time.

- Explain why cities and towns have laws to maintain order and protect citizens.
- Give examples of different heads of government around the world.
- Discuss the exchange of power in the history of various communities around the world.

Standard 6 – Religion and Philosophy

Students know that religious and philosophical ideas have been powerful forces throughout history.

- Give examples of how the beliefs of people are reflected in the celebrations and practices of their community.
- Discuss ways that communities depict their history, daily life, and beliefs.

Reading and writing are essential skills of social studies. The social studies curriculum is subdivided into disciplines. For clarity these are listed separately, yet in a third grade classroom these will often be taught within a larger thematic unit. This is called integration of subjects.



Fourth Grade

Language Arts

Math

Science

Geography

History

Parents' Reference Guide to
Standards
in Poudre School District

Language Arts

Standard 1 – Reading

Students read and understand a variety of materials

- Begin to adjust reading strategies, with support, for different purposes.
- Apply word recognition strategies when reading a variety of materials: rhymes and poems, stories, directions, nonfiction material, fairy tales and folk tales, including those from other communities and cultures.
- Use homophones correctly.
- Begin to use word origins.
- Use information from what they have learned to develop vocabulary.

Standard 2 – Writing and Speaking

Students write and speak for a variety of purposes (expository, persuasive, narrative and creative writing) and audiences.

- Think of and develop ideas, in a group, for a variety of writing and speaking purposes, for example:
 - Publish a class newsletter or a personal story in a variety of genre.
 - Write a letter to an adult (business or friendly letter) or pen pal.
 - Write or orally present a book report.
- Share finished pieces.
- Use character, setting and plot sequence events appropriately.
- Begin to write paragraphs, in a group and with support.
- Use vocabulary, figures of speech and story elements to communicate messages clearly and precisely.
- Develop awareness of homonyms, synonyms and antonyms.
- Present a final product in publishable form.

Standard 3 – Language Structure

Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization and spelling.

- Identify some parts of speech, such as nouns, verbs and adjectives.

- Use simple and compound sentences in writing and speaking.
- Develop awareness of homophones.

Standard 4 – Thinking and Viewing

Students apply thinking skills to their reading, writing, speaking, listening and viewing.

- Practice listening skills in relation to understanding directions of increasing number, length and complexity.
- Formulate questions about what they read, write, hear and view.

Standard 5 – Research

Students read to locate, select and make use of relevant information from a variety of media, reference, and technological sources.

- Use organizational features to locate media or electronic information (for example: passwords, entry menu features, pull-down menus, icons, key word searches).
- Sort information as it relates to a specific topic or purpose.
- Give credit for borrowed information by telling or listing sources, including title of book, author, copyright date and publisher.
- Use information from research, in a group and with support, to create an end product (written, oral, or visual).

Standard 6 – Literature and Culture

Students read and recognize literature as a record and expression of cultural heritage.

- Read, respond to and discuss a variety of literature, for example: folk tales, legends, myths, fiction, rhymes and poems, nonfiction and content-area reading.
- Read, respond to and discuss literature as a way to explore similarities and differences among stories and the ways in which those stories reflect the ethnic background of the author and the culture in which they were written.

Math

Standard 1 – Number Sense

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Demonstrate meanings for whole numbers, integers, commonly used fractions and decimals (for example: money) and represent equivalent forms of the same number through the use of physical models, drawings, calculators and computers.
- Read, write, order, and compare whole numbers, integers, unit fractions (e.g. $\frac{1}{4}$, $\frac{1}{5}$) with unlike denominators, decimals to hundredths as it relates to money.
- Use number sense to estimate and justify solutions with whole numbers and commonly used fractions.
- Use numbers in various ways, for example: to count, to measure, to label and to indicate location (odd, even, negative, decimals and fractions) on number line.

Standard 2 – Patterns and Algebra

Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

- Identify, reproduce, extend, create and describe more complex patterns and sequences involving whole numbers, negative numbers, fractions and decimals.
- Use tables, graphs, open sentences ($n + 5 = 12$) and relational diagrams to describe patterns and other relationships (bar, circle, and broken line graphs).
- Recognize when a pattern or sequence exists and use that information to solve a problem (for example: multiplication is repeated addition and division is repeated subtraction).

Standard 3 – Statistics and Probability

Students use data collection and analysis, statistics and probability in problem-solving situations and communicate the reasoning used in solving these problems.

- Read, interpret, and construct simple displays of data including tables, charts, pictographs, different scales and bar graphs with an interval of one.
- Calculate and explain the average (mean) of more than two 2-digit numbers that divide evenly.

- Generate, analyze, and make predictions based on data (with one variable) obtained from surveys and chance devices, for example: spinners and dice.
- Demonstrate that predictions can be wrong due to randomness.

Standard 4 – Geometry

Students use geometric concepts, properties and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Identify, classify, describe, and compare models of the two- and three-dimensional geometric figures previously identified.
- Use a construction tool to construct parallel line segments and parallelograms.
- Demonstrate how a change in shape affects area and/or perimeter.
- Use a grid to recreate two-dimensional figures of a given shape, area and perimeter (circle, triangle, square, or rectangle) and determine its area and perimeter.

Standard 5 – Measurement

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate and measure length (yards and meters), area, capacity (milliliters and liters), weight (gram and kilogram), time (minute intervals) and temperature (Fahrenheit) using standard units of measurement with an understanding of reasonableness of results.
- Demonstrate the process of measuring length, time, temperature, and money and explain the concepts related to the units of measurement.
- Without using measuring tools, know the approximate measures of familiar objects in U.S. and metric units and be able to use that information in a given situation (for example: the width of your finger, the temperature of a room, the weight of a hammer).

Standard 6 – Computation

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper and pencil, calculators and computers in problem-solving situations and communicate the reasoning used in solving these problems.

- Demonstrate conceptual meanings for addition, subtraction, multiplication and division operations using whole numbers.

- Demonstrate the conceptual meaning for order and equivalency of fractions and decimals using physical models (including but not limited to money, unifix cubes, and other manipulative counters).
- Develop procedures for computing and estimating with whole numbers using the four basic arithmetic operations.
- Select and use appropriate methods for computing with whole numbers in problem-solving situations from among mental arithmetic, estimations, pencil and paper algorithms, and calculator or other mechanical methods in the four basic arithmetic operations.

Science

Standard 1 – Scientific Investigation

Students understand the processes of scientific investigation and design as well as conduct, communicate about and evaluate such investigations.

- Individually, ask questions and state predictions (hypotheses) that can be addressed through scientific investigation.
- Individually, select and use simple devices to gather data related to an investigation
- Access information using a variety of printed texts and electronic media.
- Organize observations through writing, drawing, graphing, oral presentations and charts.

Standard 2 — Physical Science

Students know and understand common properties, forms, and changes in matter and energy. (Focus: physics and chemistry)

- Examine, describe, classify, and compare tangible objects in terms of common physical properties (for example: state of matter, size, shape, texture, flexibility, color).
- Make observations and gather data on quantities associated with energy, movement, and change (for example: distances for a bean-launcher, time for melting ice cube).
- Compare quantities associated with energy movement and change by constructing simple diagrams or charts (for example: graph of launch distances, chart of melting time).
- Describe an observed change (for example: a melting ice cube, crystal growth, burning candle, physical breakage) in terms of starting conditions, type of change, and ending conditions, using words, diagrams, or graphs.

Standard 3 – Life Science

Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: biology, anatomy, physiology, botany, zoology, ecology)

- Identify digestive, respiratory and circulatory systems of the human body.
- Describe the basic food requirements for humans as summarized in the nutrition pyramid.
- Describe life cycles of selected organisms (for example: frog, chicken, butterfly, radish, bean plant).
- Observe and investigate human skeletal and muscle systems.

Standard 4 – Earth and Space Science

Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: geology, meteorology, astronomy, oceanography)

- Describe different types and uses of Earth materials (rocks, soil, minerals).
- Recognize that fossils are evidence of past life.
- Identify major features of Earth's surface (mountains, rivers, plains, hills, oceans, plateaus).
- Describe natural processes that change Earth's surface (weathering, erosion, mountain building, volcanic activity).

Standard 5 – Science, Technology and Human Activity

Students know and understand interrelationships among science, technology and human activity and how they can affect the world.

- Recognize the diversity of resources provided by the Earth and sun (soil, fuels, minerals, medicines, food).
- Identify careers that use science and technology.
- Describe and define the invention process (brainstorm, analyze, combine and create).
- Describe the effects of pollution on the environment and suggest activities designed to conserve natural resources.

Standard 6 – Scientific Concepts

Students understand that science involves a particular way of knowing and understanding common connections among scientific disciplines.

- Recognize that when a science experiment is repeated with the same conditions, the experiment generally works the same way.
- Identify observable patterns and changes in their lives and predict future events based on those patterns.
- Describe and compare the components and interrelationships of a simple system.
- Compare knowledge gained from direct and indirect experience.

Geography

Standard 1 – People, Places and Environments

Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places and environments.

- Use graph coordinates to locate Colorado cities and sites.
- Interpret map information using legend, scale, index.
- Graph counties and commodities of Colorado.
- Identify mountains, rivers, plains, plateaus, valleys and the Continental Divide.
- With reference to the Gold Rush and why people came to Colorado, describe how this, the cattle drive, Spanish settlements from Mexico, and fur traders/forts were examples of movement of goods, services and ideas of people.
- Explain why forts are beside rivers, farms are beside water supplies, ranches are where grazing is available, supply towns are at the base of mountains, mining towns are in mountains, etc.

Standard 2 – Regional Characteristics

Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

- Identify impact by people on changes in a Colorado region.
- Identify regions: mountains, plains, plateaus, life zones (plains, foothills, montane, subalpine, alpine) and how these regions were affected by over grazing, farming, mining, deforestation and urbanization.

Standard 3 – Earth

Students understand how physical processes shape Earth's surface patterns and systems.

- Examine life zones in Colorado differentiating between plants and animals in each zone.
- Compare and contrast life zones, giving examples of plants and animals in each zone.

Standard 4 – Economic, Political, Cultural and Social Processes

Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict.

- Compare and contrast fur trappers, gold seekers, cattle drivers, pioneer farmers and ranchers
- Examine the cause of human migration.
- Compare and contrast the Native American cultures of Plains, Anazi and Ute Indians
- Examine Spanish American culture.
- Discuss railroads leading to mining towns and railroads used for transportation of cattle and goods.
- Describe conflict over land use in Colorado between Native Americans and farmers, farmers and ranchers, and cattle ranchers and sheep ranchers.

Standard 5 – Human Interactions

Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources.

- Discuss: farming, mining, recreation, reservoirs and lumber business.
- Discuss how natural resources positively/negatively affect people.
- Discuss the use of land for state and national parks.
- Identify the distribution of resources.

Standard 6 – Past, Present and Future

Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

- Describe how mining/farming areas have changed over time.
- Compare/contrast early people: Anasazi, Ute, Cheyenne, Arapaho, Spanish, settlers, homesteaders and farmers in relation to geographical location.

History

Standard 1 – Chronological Organization

Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.

- Prepare a timeline accurately depicting significant people and events in correct sequence: Folsom Man, Basket Makers, Cliff Dwellers, Utes, Plains Indians, Explorers, Trappers, Traders, Spanish Americans, Miners, Homesteaders, Colorado Statehood, Railroad to Denver, Louisiana Purchase, Bent's Fort, Gold Rush, Colorado becoming a territory, Zebulon Pike, Stephen Long, Homestead Act, Sand Creek Massacre, Meeker Massacre, Utes sent to reservations.
- Select two groups from Colorado history who had a conflict with each other and describe the cause and effect of the conflict.

Standard 2 – Historical Inquiry

Students know how to use the processes and resources of historical inquiry.

- Compile information into a research report (either written or oral).
- Describe the oral tradition of sharing culture from generation to generation (Spanish Americans and Native Americans).

Standard 3 – Diverse Societies

Students understand that societies are diverse and have changed over time.

- Recognize significant contributions of French trappers, Spanish Americans, Native Americans, and immigrants who settled in Colorado.

Standard 4 – Science, Technology and Economic Activity

Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

- Compare the lives of hunters and gatherers to the lives of people who cultivated plants and raised domesticated animals for food.
- Describe the impact of various technological developments on the local community and the state (for example: irrigation, transportation, communication).
- Describe the economic reasons why people move to or from a location
- Discuss the development of towns.
- Describe different systems of exchange that can be used.

Standard 5 – Political Institutions and Theories

Students understand political institutions and theories that have developed and changed over time.

- Describe Colorado as a territory.
- Describe Colorado as a state.
- Discuss the role of Colorado government leaders (for example: governor, mayor, state representatives, state senators, U.S. representatives and U.S. senators).
- Give examples of how individuals and/or various groups have gained, lost, or maintained political rights, freedoms, power, or cultural identity in the history of the community, region or state.
- Describe contributions of family members throughout Colorado's history within the various cultures.
- Discuss significance of the Colorado River to other states.

Standard 6 – Religion and Philosophy

Students know that religious and philosophical ideas have been powerful forces throughout history.

- Describe traditions based on cultural beliefs and ideas.
- Give examples of how beliefs of the people are reflected in the celebrations and practices of their community.
- Give examples of forms of expression that depict the history, daily life, and beliefs of various peoples (for example: folk tales, ballads, dance and architecture).



Fifth Grade

Language Arts

Math

Science

Geography

History

Parents' Reference Guide to
Standards
in Poudre School District

Language Arts

Standard 1 – Reading

Students read and understand a variety of materials

- Use comprehension strategies:
 - preview
 - predict and confirm
 - compare and contrast
- Connect reading with personal experience and background knowledge.
- Use information from reading to increase vocabulary.

Standard 2 – Writing and Speaking

Students write and speak for a variety of purposes and audiences.

- Organize ideas into draft form.
- Communicate effectively through oral presentation to an audience.
- Provide basic supporting information.
- Do guided pre-writing (for example: brainstorming, webbing, etc.)
- Demonstrate basic understanding of the following organizational strategies:
 - lists
 - webs
 - story maps
 - brainstorming
- Vary word choices by using devices such as:
 - Synonym, antonym
 - Descriptive language
 - Figures of speech (for example: simile and metaphor)
- Produce oral presentations demonstrating:
 - Effective use of notes.
 - Adequate voice volume and enunciation.
 - Eye contact with audience.

Standard 3 – Language Structure

Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization and spelling.

- Use appropriate end punctuation of sentences.
- Correctly use common regular and irregular verb forms in context.
- Correctly punctuate singular possessives.

Standard 4 – Thinking and Viewing

Students apply thinking skills to their reading, writing, speaking, listening and viewing.

- Make predictions.
- Draw conclusions.
- Identify the problem in a given work.
- Develop possible solutions to a problem.
- Develop reasons to support a personal point of view.
- Begin to identify the historical and cultural influences in a work.

Standard 5 – Research

Students read to locate, select and make use of relevant information from a variety of media, reference, and technological sources.

- Focus on appropriate questions and identify likely resources.
- Locate specific information using:
 - computer card catalog
 - table of contents in a book
 - index in a book
- State information from a resource in own words.
- Give credit for borrowed information in a simplified bibliography format, with teacher assistance.

Standard 6 – Literature and Culture

Students read and recognize literature as a record and expression of cultural heritage.

- Identify in a story:
 - setting
 - plot—sequence of events
 - main character
- Recognize:
 - fiction
 - nonfiction
- Read, respond to and discuss a variety of literature as it connects to personal experience and cultural background.
- Read, respond to and discuss historical fiction reflecting United States history.

Math

Standard 1 – Number Sense

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Locate and order decimals and common fractions on the number line.
- Read, write, order, compare integers, rational and simple irrational numbers.
- Find multiples and least common multiple.
- Identify the relationships among the concepts of fractions, decimal numbers and division.

Standard 2 – Patterns and Algebra

Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

- Recognize and extend simple geometric patterns with tiles.
- Model integers with manipulatives: read and write from manipulatives.
- Recognize the change that occurs with division, for example: decrease in divisor results in an increase in quotient.

- Recognize linear relationships (for example: if one candy bar cost \$.50, then two candy bars cost \$1.00).

Standard 3 – Statistics and Probability

Students use data collection and analysis, statistics and probability in problem-solving situations and communicate the reasoning used in solving these problems.

- Read, interpret and construct line and bar graphs using the concept of varied scale and axis.
- Conduct and interpret surveys.
- Make predictions and compare results using experimental probability of one variable.
- Draw simple tree diagrams to determine possible outcomes of combinations of two or more variables.

Standard 4 – Geometry

Students use geometric concepts, properties and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Know properties and vocabulary of quadrilaterals, squares, rectangles, parallelograms, circles and triangles.
- Construct two-dimensional models of squares, rectangles, triangles and circles using a variety of methods and tools.
Demonstrate concept of perimeter and area of two-dimensional figures.

Standard 5 – Measurement

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate and measure the perimeter and area of squares, rectangles and triangles.
- Identify the standard of measurement of unit capacity, weight and mass, using both U.S. and metric measurements (no conversions).
- Estimate and use tools to measure within the measurement systems of length (m, dm, cm, mm, yards, feet, inches and 1/2 inch), volume (liters, ml, cups, pints, quarts and gallons), weight (grams, kg and pounds) and temperature (Fahrenheit and Celsius).
- Convert equivalent values within the measurement system of length, volume, weight and temperature as specified above.
- Use area and perimeter formulas to calculate the area and perimeters of squares and rectangles.

Standard 6 – Computation

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper and pencil, calculators and computers in problem-solving situations and communicate the reasoning used in solving these problems.

- Use the estimation techniques of rounding, truncating and educated guess based on prior information.
- Demonstrate proficiency in multi-digit addition and subtraction with regrouping; multi-digit multiplication (four digits by two digits), and division (two digit by one digit with remainder).
- Select and use appropriate methods for computing with whole numbers and commonly used fractions, decimals and percents in problem-solving situations from among mental arithmetic, estimations, pencil-and-paper algorithms, and calculator or other mechanical methods in the four basic arithmetic operations.
- Calculate least common multiples, greatest common factors and equivalent fractions for very simple fractions (denominators of 2, 3, 4).
- Explain ratio and proportion from a physical model.

Science

Standard 1 – Scientific Investigation

Students understand the processes of scientific investigation and design as well as conduct, communicate about and evaluate such investigations

- Organize and analyze data from experiments and investigations and relate laboratory studies to natural systems.
- Set up experiments to study cause-and-effect relationships.
- Compare outcomes of experiments.
- Communicate work in various ways: written reports, oral presentations, graphs, charts, spreadsheets, artwork.

Standard 2 – Physical Science

Students know and understand common properties, forms and changes in matter and energy. (Focus: physics and chemistry)

- Predict outcomes by changing variables.
- Design and conduct experiments (for example: simple machines: pendulums, catapults, pulleys, levers).

- Measure force, distance and work involved using levers and pulleys.
- Identify and classify factors causing change within a system.

Standard 3 – Life Science

Students know and understand the characteristics and structure of living things, the processes of life and how living things interact with each other and their environment. (Focus: biology, anatomy, physiology, botany, zoology, ecology)

- Based on attributes, place living organisms into groups based on similarities.
- Identify living and non-living components of an ecosystem when given an example of one.
- Identify the characteristics of healthy, functioning ecosystems.
- Explain the interaction and interdependence of non-living and living components within ecosystems.

Standard 4 – Earth and Space Science

Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: geology, meteorology, astronomy, oceanography)

- Explain the H₂O cycle and identify sources of fresh and salt H₂O.
- Describe differences in salt and fresh water (salinity).
- Explore uses of water in production of energy.

Standard 5 – Science, Technology and Human Activity

Students know and understand interrelationships among science, technology and human activity and how they can affect the world.

- Identify renewable and non-renewable resources.
- Categorize the types of science and technology used in various careers.
- Recognize that technologies consume and generate energy.
- Know that designing a solution to a simple problem may have constraints, such as cost, materials, time, space and safety.

Standard 6 – Scientific Concepts

Students understand that science involves a particular way of knowing and understand common connections among scientific disciplines.

- Give examples of how scientific knowledge changes as new knowledge is acquired.
- Explain why the same experiment must have comparable results when repeated.
- Identify variables related to change.
- Know that women and men of all ages, backgrounds and groups participate in the various areas of science and technology as they have for many centuries.

Geography

Standard 1 – People, Places and Environments

Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places and environments.

- Use contour and aerial photography maps.
- Use atlas as a tool to understand products, maps and commodities map of U.S.
- Construct maps for different periods in U.S. study.
- Identify and locate physical and human features in the United States as it relates to each unit.

Standard 2 – Regional Characteristics

Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

- Describe the characteristics of places that occur naturally or are made by people in the major study units.
- Identify the distinguishing characteristics of the major regions in the Colonial Period (New England, Middle and Southern colonies).
- Examine the industrialization of Northeast with water power, technological changes and lack of fertile soil.
- Analyze the events of North vs. South vs. West during the expansion of the nation.
- Explain how culture and technology affect the way people perceive places and regions.
- Explain how places and regions serve as cultural symbols.

Standard 3 – Earth

Students understand how physical processes shape Earth's surface patterns and systems.

- Examine land forms, deltas, flood plains and canyons.
- Examine the effects of mountains on westward movement crossing the great American desert to get to Oregon.

Standard 4 – Economic, Political, Cultural and Social Processes

Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict.

- Understand reasons why settlement stopped at the Appalachians Mountains.
- Note differences between New England, Middle and Southern colonies.
- Examine how the colonies traded raw materials for manufactured goods from England.
- Understand the importance of river highways, ocean travel, canals and railroads in moving goods.
- Understand how canals and railroads influenced the importance of certain cities.
- Examine the pattern of settlements following rivers.
- Examine the cooperation and conflict among people on Wagon Trains during the westward movement period.

Standard 5 – Human Interactions

Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources.

- Explain the role of steamships, canals, railroads and the development of town and industries
- Describe how the cotton gin lead to huge plantations.
- Describe how natural events affect human activities.
- Understand the importance of water on the Oregon Trail.
- Understand the Native American view of land ownership vs. the European view of land ownership.

Standard 6 – Past, Present and Future

Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

- Analyze how the Oregon Territory affected the Westward Movement.

History

Standard 1 – Chronological Organization

Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.

- Put in chronological order important people and events in major study units.
- Understand the influence that England, France, Spain and their colonies had on U.S. history.
- Read primary, secondary, and historical fiction sources and write a response which includes a sequence of the events.
- Examine the ways that people made a living and identify those ways in each major study unit.

Standard 2 – Historical Inquiry

Students know how to use the processes and resources of historical inquiry.

- Read primary and secondary sources and formulate questions.
- Determine if the information gathered is sufficient to answer historical questions.
- Find information revealed through artifacts; read to find additional details and discuss.
- Examine the relationship between current events and important history themes.

Standard 3 – Diverse Societies

Students understand that societies are diverse and have changed over time.

- Identify the common traits and characteristics that unite the United States as a nation and a society.
- Explain why people and cultures have come to live in the Americas.
- Identify and give examples of the basic elements of cultural and social organization in the major study units.
- Describe how social roles, traditions, and the characteristics of social organization have both changed and endured in the United States throughout its history.

Standard 4 – Science, Technology and Economic Activity

Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

- Explain the significance of scientific development during each major study unit.
- Examine how changes in transportation affected the settlement of the U.S. (for example: steamboats, roads and canals).
- Examine how inventions affected people's lives.
- Explain how mineral resources and water played a major role in the settlement of the West.
- Explain how the triangle trade affected slavery.
- Describe historical events and the role of individuals in the economic development.

Standard 5 – Political Institutions and Theories

Students understand political institutions and theories that have developed and changed over time.

- Learn the principles of self government, representative government and individual rights.
- Learn the basic ideas set forth in the Declaration of Independence, Constitution and Bill of Rights.
- Describe how political rights have been affected by, but not limited to, gender, race, national origin and religion.
- Describe how the use of military power influenced the political history of the U.S. (for example: Revolutionary War, Civil War and war with the Native Americans).

Standard 6 – Religion and Philosophy

Students know that religious and philosophical ideas have been powerful forces throughout history.

- Identify the religious differences between the southern, middle and New England colonies.
- Understand that the freedom of religions principle in the U.S. allowed many religions to flourish.
- Give and describe examples of individuals who, throughout history, acted from their religious or philosophical beliefs.
- Examine art forms of various ethnic groups in the U.S.
- Understand how literature reflects American traditions.
- Discuss the significance of various U. S. structures (for example: capitol building, Statue of Liberty, Lincoln Memorial).



Sixth Grade

Language Arts

Math

Science

Geography

History

Parents' Reference Guide to
Standards
in Poudre School District

Language Arts

Standard 1 – Reading

Students read and understand a variety of materials

- Use comprehension strategies such as
 - re-read
 - summarize
 - determine main idea
 - apply knowledge of similes and other figures of speech
- Use word-recognition strategies such as:
 - word order clues (transition words)
 - dictionary skills
- Use word parts—roots, prefixes, suffixes—to increase vocabulary.
- Use information from their reading to increase vocabulary.

Standard 2 – Writing and Speaking

Students write and speak for a variety of purposes and audiences.

Write to:

- Explain (for example: reports).
- Entertain and express (for example: creative writing).
- Select topics reflecting established purpose.
- Revise, with guidance.
- Edit, with guidance.
- Use organization tools in preparing oral presentations.

Standard 3 – Language Structure

Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization and spelling.

- Demonstrate guided and independent use of homonyms and homophones in writing and speaking.
- Correctly punctuate and capitalize story and book titles in their writing.
- Correctly spell commonly used words.

Standard 4 – Thinking and Viewing

Students apply thinking skills to their reading, writing, speaking, listening and viewing.

- Practice identifying cause and effect.
- Identify likenesses and differences.
- Discuss solutions and consequences.
- Begin to identify the historical and cultural influences in a work.

Standard 5 – Research

Students read to locate, select and make use of relevant information from a variety of media, reference, and technological sources.

- Locate specific information using:
 - glossaries
 - alphabetical or numerical
 - arrangement of topics
 - key word search, electronic media (for example: Carl, www, CD ROM).
- State information from a resource in own words.
- Give credit for borrowed information in a simplified bibliography format, with teacher assistance.
- Use information from research in an end-product—written, oral, visual, or multi-media.

Standard 6 – Literature and Culture

Students read and recognize literature as a record and expression of cultural heritage.

- Identify in a story:
 - conflict—problem and solution
 - mood
- Recognize:
 - autobiography
 - biography
 - poetry

- Read, respond to, and discuss a variety of literature as it connects to personal experience and cultural background.
- Read, respond to, and discuss literature as a way to explore similarities and differences among cultures.

Math

Standard 1 – Number Sense

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Use physical materials and number lines to demonstrate integers, rational numbers and percents.
- Identify other base systems.
- Identify pi (π) and exponents, specifically squares.
- Read, write, compare, and order integers and positive rational numbers.
- Find LCM (least common multiple) and GCF (greatest common factor).
- Make factor trees.
- Use Venn diagrams to demonstrate groupings.
- Identify the relationships among the concepts of fractions, decimal numbers and division.

Standard 2 – Patterns and Algebra

Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

- Recognize and extend more complex models of geometric patterns.
- Recognize how scale affects interpretation of a graph.
- Verbalize a rule from a modeled pattern.
- Demonstrate one- and two-step equations with physical models (for example: a balance scale).
- Recognize that a variable can represent an unknown in an equation, and apply in simple problem-solving situation.
- Use variables in formulas to solve a problem.

- Verbalize and predict the differences in the changes that occur in linear and nonlinear relationships (example: $y = x$, $y = x^2$).

Standard 3 – Statistics and Probability

Students use data collection and analysis, statistics and probability in problem-solving situations and communicate the reasoning used in solving these problems.

- Define and use the terms mean, median and mode.
- Calculate averages using whole numbers and decimals.
- Make predictions and compare results using experimental probability with two variables.
- Use simple grids and tree diagrams to find all possible outcomes.

Standard 4 – Geometry

Students use geometric concepts, properties and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

- Know and be able to describe the properties and vocabulary of plane geometry including: lines, line segments, rays, angles, polygons, circles, parallelism, perpendicularity, congruence, and similarity.
- Construct physical models of prisms, pyramids, cones, cylinders and spheres.
- Take apart a three-dimensional model and return it to a two-dimensional figure that shows all the faces of the original three-dimensional model.
- Draw a Cartesian coordinate grid and label the axis, origin and quadrants.
- Plot ordered pairs on a coordinate grid that includes positive and negative values on both axis.
- Calculate the surface area and volume of a cube from a physical model.

Standard 5 – Measurement

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate and measure length using m, cm, mm, yd, ft, in, 1/2 in, and 1/4 in.
- Estimate and measure the perimeter and area of squares, rectangles, triangles and circles.
- Use formulas to calculate the perimeter and area of squares, rectangles, triangles, and circles.

- Illustrate and model with manipulatives how the change of linear dimension affects perimeter, area and volume.

Standard 6 – Computation

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper and pencil, calculators and computers in problem-solving situations and communicate the reasoning used in solving these problems.

- Estimate operations from whole number, decimal, fraction, mixed number and integer computations in problem-solving situations.
- Demonstrate proficiency with paper-and-pencil computations, estimation, and mental arithmetic over the set of rational numbers.
- Demonstrate proficiency of converting mixed numbers and improper fractions using models and paper-and-pencil calculations.
- Demonstrate proficiency of converting fractions to decimals and percents.

Science

Standard 1 – Scientific Investigation

Students understand the processes of scientific investigation and design as well as conduct, communicate about, and evaluate such investigations.

- Use appropriate tools to measure (for example: balances and weights, meter sticks, graduated cylinders, beakers, thermometers).
- Follow a plan to conduct a scientific investigation that involves: questions, hypothesis, controlling variables, collecting data, drawing conclusions and making predictions.
- Communicate with reports, orally, graphs, charts, spreadsheets and art.
- Establish relationships based on evidence and logical argument (provides causes for effects).

Standard 2 — Physical Science

Students know and understand common properties, forms and changes in matter and energy. (Focus: physics and chemistry)

- Observe solar energy transfer.
- Design simple models which demonstrate temperature transformation (for example: solar water heaters, solar space heaters).
- Measure quantities associated with energy forms (for example: mass, temperature).

- Understand that energy moves in predictable ways, flowing from warmer objects to cooler ones until both objects are at the same temperature.

Standard 3 – Life Science

Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: biology, anatomy, physiology, botany, zoology, ecology)

- Identify the components, relationships and processes necessary to maintain an ecosystem.
- Categorize organisms according to their roles in food chains and webs.
- Explain the interdependence of body systems to the survival of the organism.
- Research, then discuss a communicable disease including how the disease is spread (for example: air, water, etc.). Recognize the differences between communicable and noncommunicable diseases.

Standard 4 – Earth and Space Science

Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: geology, meteorology, astronomy, oceanography)

Not addressed at this level.

Standard 5 – Science, Technology and Human Activity

Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.

- Investigate current trends in the consumption of renewable and nonrenewable resources worldwide.
- Identify and explore a technological industry's use of science and technology in that field.
- Identify and explore new technologies and how these new technologies affect the environment.
- Know that a technological design should meet criteria established in the original purpose.

Standard 6 – Scientific Concepts

Students understand that science involves a particular way of knowing and understanding common connections among scientific disciplines.

- Identify variables and conditions related to change.
- Use a model to describe an event.
- Identify/compare today's technologies with that of their parents and grandparents.
- Know that women and men of diverse interests, talents, qualities and motivations and of various social and ethnic backgrounds, engage in the activities of science, engineering, and related fields; some scientists work in teams, some work alone, but all communicate with others.

Geography

Standard 1 – People, Places and Environments

Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places and environments.

- Understand map keys showing elevation, population, economics and population density.
- Use atlas, text and technology to understand and compare various maps.
- Use maps to identify physical and human features of North America in terms of location, distance, between locations, size and populations density.
- Describe the patterns and processes of migration and the spread of ideas, people, technology and products among places.
- Discuss interaction between bordering countries.

Standard 2 – Regional Characteristics

Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

- Identify and compare physical and human characteristics of North America (for example: largest cities, historic sites, land forms, rivers).
- Recognize perceptions people have of an area based on its physical characteristics and cultural history.
- Determine how ancient cultures and religions affect present-day people.

Standard 3 – Earth

Students understand how physical processes shape Earth’s surface patterns and systems.

- Explain how physical processes such as water and ice or volcanoes and earthquakes, produce distinctive land forms.
- Examine the processes that produce renewable and nonrenewable resources and their economic potential.
- Compare and contrast local ecosystem patterns with those in various locations of North America.
- Examine and be able to compare and contrast the ecosystems of North America as they affect and pertain to areas of study.

Standard 4 – Economic, Political, Cultural and Social Processes

Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict.

- Determine the various ethnic groups that make up the population of North America and use a variety of visual materials, data sources and narratives to describe the human characteristics of a region and compare them to characteristics of surrounding communities.
- Explain why and how countries trade goods and services.
- Understand land use possibilities that determine economic value of a region.
- Use graphs, charts and data-retrieval sources to show that job opportunities lead to migration of people from one area to another.
- Understand the reasons for conflict and cooperation among people as they set about inhabiting a particular region.

Standard 5 – Human Interactions

Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources.

- Describe the influence of transportation systems on the development of North America.
- Describe how earthquakes and floods affect human activities.
- Understand the reasons for and economic impact of import and export to and from a particular region.
- Identify how technology affects the definition of, access to, and use of resources.

Standard 6 – Past, Present and Future

Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

- Understand how a group of people adapted to climate, land form, etc.
- Understand how geographic features affect interactions between and among the peoples of North America.

History

Standard 1 – Chronological Organization

Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.

- Organize major historical events of Canada and Mexico.
- Read primary and secondary, historical fiction sources and write a response which includes a sequence of the events about Canada and/or Mexico.
- Examine the role of economics and technology in the domination of Europeans in North America, specifically Canada and Mexico, in the 17th and 18th centuries.

Standard 2 – Historical Inquiry

Students know how to use the processes and resources of historical inquiry.

- Read primary and secondary sources on Canada and Mexico and look at the issues of cause and effect.
- Identify which sources are primary and secondary when reading about and/or re-searching Canada and Mexico.
- Examine historical events in Canada and Mexico and relate them to the present.

Standard 3 – Diverse Societies

Students understand that societies are diverse and have changed over time.

- Identify the contributions of the early cultures in Canada and Mexico.
- Examine Aztec and Mayans and their interaction with the Spanish.

Standard 4 – Science, Technology and Economic Activity

Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

- Describe the role of mercantilism and transportation as it relates to European influence in Canada and Mexico.
- Examine the trade relationships between Canada, U.S. and Mexico.

Standard 5 – Political Institutions and Theories

Students understand political institutions and theories that have developed and changed over time.

- Describe the basic type of government in both Canada and Mexico.
- Describe how the use of military power has influenced the political history of Canada and Mexico.
- Identify the key political alliances in the Americas (for example: NAFTA, OAS).

Standard 6 – Religion and Philosophy

Students know that religious and philosophical ideas have been powerful forces throughout history.

- Examine the role of philosophical and religious leaders in the fight for independence in Mexico and Canada (for example: Father Hidalgo, Morelos, Zapata, Nellie McClung, William Lyon Mackenzie).
- Examine the art and music of Canada and Mexico.