

Sixth Grade

Sixth grade students are scheduled into a core academic block, two exploratory classes, and a lunch period each day. The core subjects are language arts, reading, social studies, math, and science. Students will also receive specialized instruction in exploratory areas. During one of the two exploratory periods, students will alternate physical education and music on an every-other-day schedule. Music offerings include band, orchestra, or choir/general music. The second exploratory period will meet daily and will rotate every nine weeks. This exploratory wheel may include subjects such as Art, Applied Technology, Computers, and Living Skills.

Sixth Grade Required Subjects:

- Language Arts
- Reading
- Math (Math1, Math 1S, or Math 2S)
- Physical Science
- Social Studies
- Physical Education/Health
- Music (Band, Orchestra, or Choir/General Music)
- Exploratory Wheel (may include Art, Applied Technology, Computer, and Living Skills)

Seventh Grade

Seventh grade students are scheduled into a core academic block, two elective periods, a semester of physical education, a quarter of health, a quarter of reading and lunch. The academic block will include language arts, reading, world geography, life science and math. Students may choose their remaining two classes from the electives described in this booklet.

Seventh Grade Required Subjects:

- Language Arts (Language Arts or Language Arts Advanced)
- World Geography
- Math (Math 2, Math 2S, or Math 3S)
- Life Science
- Physical Education (1 semester)
- Health (1 quarter)
- Reading (1 quarter)

Eighth Grade

Eighth grade students are scheduled into four core academic subjects, two elective periods, a semester of physical education, a semester of health, and lunch. The four academic subjects include math, Earth science, language arts, and U.S. society. Students may choose their remaining two classes from the electives described in this booklet.

Eighth Grade Required Subjects:

- Language Arts (Language Arts and Language Arts Advanced)
- U.S. Society
- Earth Science
- Math (Math 3, Math 3S, Algebra 1 Advanced)
- Physical Education (1 semester)
- Health (1 semester)
- Seventh and Eighth Grade Elective Subjects
- Semester Electives
- Accelerated Reading
- Keyboarding
- Acting
- Media Center Aide (8th grade priority)
- Applied Technology
- Media Maze
- Art I Mixed Choir: "Cyclone Singers"
- Computer Power
- Multimedia Productions
- Creative Writing Musical Theatre
- Desktop Publishing
- Office Aide (8th grade priority)
- Drawing and Painting
- Physical Education (in addition to required)
- Experiences in 3-D Design
- Pottery and Crafts
- Internet World Show Choir

Social Studies: *Geography Content Standards*

- Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places, and environments.
- Students know the physical and human characteristics of places and use this knowledge to define and study regions and interpret their patterns of change.
- Students understand how physical processes that shape Earth's surface patterns and systems.
- Students understand how economic, political, cultural, and social processes interact to shape diverse patterns of human populations, movement, interdependence, cooperation, and conflict.
- Students understand the effects of interactions between human and physical systems and the changes in meaning, use distribution, and importance of resources.
- Students apply knowledge of people, places, and environments to understand and interpret the past and present and to plan for the future.

Social Studies: History Content Standards

- Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.
- Students know how to use the processes and resources of historical inquiry.
- Students understand that societies are diverse and have changed over time.
- Students understand the impact of economic activity and scientific and technological developments on individuals and societies.
- Students understand political institutions and theories that have developed and changed over time.
- Students know that religious and philosophical ideas have been powerful forces throughout history.

Social Studies: Social Studies Curriculum

- Sixth Grade - Western Hemisphere Geography and Ancient History
- Maps & Globes - continents and oceans, land forms, latitude and longitude
- Five Themes of Geography - Location, Place, Movement, Human and Environmental Interactions, and Regions

All five themes are addressed throughout the curriculum.

- Canada - geography, history, and culture
- Latin America - Mexico, Central America, Caribbean, and South America
- Voyage of the Mimi (interdisciplinary) – Maya
- Ancient American Cultures - Aztec, Inca, and Maya
- Ancient History - Prehistoric, Egypt, Fertile Crescent, Africa, India, and China
- Seventh Grade – World Geography II - Eastern Hemisphere

Social Studies: Geographic Skills & Tools

- Area Studies - Africa, Australia & Oceania, Antarctica, South Asia, East Asia, Southwest Asia, Southeast Asia, Russia, Europe
- Topics of Study - culture, endangered species, hunger & poverty, wealth distribution, sustainable development, population, human rights, traditional vs. modern living
- Current Events – worldwide topics
- Five Themes of Geography - addressed throughout the curriculum
- Eighth Grade - U.S. Society
- Colonial America
- American Revolution & foundation of government
- Emergence & expansion of the United States
- Civil War & reconstruction
- America emerges on the global scene
- Major 20th century conflicts
- Social movements in the United States
- Cold War era
- Contemporary issues & challenges

Special Education

Special Education is a vital part of our program. Placement in any special education class requires a specific legal process and an identified need. Special education classes are offered in math, reading, language arts, and learning lab. Inquiries regarding the appropriate inclusion in this program should be directed to the grade level counselor or principal.

Individualized Reading

This course is designed for students in any grade who have significant reading difficulties. This focus is on the acquisition and consistent usage of the seven basic reading comprehension strategies. Through the use of graphic organizers and critical reading skills, students gain the ability to recognize main idea, author's purpose, and key information. Attention to vocabulary development is also a major focus. Students learn to adjust reading rate according to purpose and text form and are required to apply all strategies to a wide variety of texts.

Major Topics Covered in 6th Grade Science

- Motion, Forces, Energy & Waves Physical/Chemical Properties of Matter
- Forms of Energy Physical States of Matter
- Energy Sources Chemical Properties of Matter
- Thermodynamics Atomic Model
- Motion and Forces Measurement
- Waves
- Work, Power & Machines
- Ecology Simple Machines
- Cycles Mechanical Advantage
- Interdependence
- Population Dynamics Science Skills
- Adaptations Topographic Maps
- Environmental Issues Microscope Use

Major Topics Covered in 7th Grade Science

- Classification
- Diversity of Life
- Teaching Units: Binomial Nomenclature, Teaching Units: Growers Alert, Diversity Endangered Species and Diversity of Life of Life and Endangered Species
- Taxonomy Plants/Animals/Fungi/Protista/Kingdom Monera/Virus
- Phylum Reproduction
- Class Life Cycles
- Order Structure/Function
- Family Evolution
- Genus Behavior (Animals)
- Species Energy Processes
- Photosynthesis/Respiration
- Cell Theory Teaching Unit: Microorganisms
- Teaching Units: Cell Structure/Function Disease and disease transmission
- Forms of Cell Division
- Teaching Unit: Body Systems Body Systems
- Cells Tissues Teaching Unit: Body Systems
- Teaching Unit: Genetics Cells Tissues Organs Organ Genetics Systems Organisms
- Skeletal Circulatory
- Digestive Respiratory
- Nervous Muscular
- Endocrine Excretory
- Skin

Major Topics Covered in 8th Grade Science

- Metric Measurement Review (Linear, Area, Volume, Mass, Metric Prefixes & Abbreviations)
- Density (Mass / Volume, Units)
- Matter/Atomic Structure (Elements / Compounds, Atoms / Molecules, Simple Atomic Bonds)
- Geology
- Minerals (Classification, Identification, Processes, Uses)
- Rocks / Rock Cycles (Classification, Identification, Processes, Uses)
- Soils (Geomorphology, Soil Types)
- Geologic Time (Earth history)
- Earth History (Fossils, Geologic Time, Evolution, Paleoenvironments)
- Plate Tectonics (Volcanology, Seismology, Processes, Forces)
- Prehistoric Journey Field Trip (Denver Museum of Nat. History)
- Oceanography
- Water Chemistry (Composition, Salinity)
- Movements (Tides, Waves, Currents)
- Bathymetry
- Biomes of the Ocean
- Ocean Journey Field Trip
- Astronomy
- Earth / Moon / Sun System (Structure, Processes, Evolution, Forces)
- Solar System (Components, Origins, Movements, Gravity)
- Stars (Sun as a Star, Structure, Processes, Evolution, Forces)
- Galaxies / Universe (Structure, Processes, Evolution, Forces)
- Technology (Space Exploration, Spectroscopy, Tools)
- Meteorology
- Atmosphere (Structure, Composition, Atmospheric Chemistry, Environmental Issues)
- Weather Factors (Cloud Types, Precipitation, Humidity, Pressure, Winds, Temperature, Dew Point, Insulation)
- Forecasting
- Severe Weather
- Atmospheric Processes (Heat Transfer, Cloud Formation, Differential Heating, Global Circulation Processes, Greenhouse Effect)
- Climate vs. Weather

Language Arts

The overriding philosophy that drives the writing portion of the Language Arts curriculum centers on creating writers who have a solid command of the English language. Each grade level addresses the basics of English including spelling, vocabulary, and grammar/usage. Additionally, each grade level addresses the writing process in a developmental framework that progresses throughout the middle school years.

Language Arts Content Standards

- Students read and understand a variety of materials.
- Students listen, observe, speak, and write for a variety of purposes and audiences.
- Students use grammatical and mechanical conventions of language in speaking and writing.
- Students use reading and writing, speaking, observing, and listening to synthesize information, to analyze and evaluate arguments, and to develop and defend argumentative positions.
- Students apply research skills to locate, select, and make use of relevant information.
- Students read, understand, and interpret literature as a record and expression of human experience.

Language Arts: Writing Curriculum

6th Grade	7th Grade	8th Grade
Expository writing	Expository writing	Expository writing
Research skills	Research skills	Applying Research skills
Narrative writing	Narrative writing	Speaking/listening
Descriptive writing	Descriptive writing	Preparatory writing for high school
Poetry	Poetry i.e.	essay-test answers/short essays
Fictional writing	Fictional writing	Journal and introduction to the five
Speaking/listening	Friendly letter paragraph essay	Speaking/listening

Language Arts: Reading Curriculum

The connection between reading and writing is invaluable. At Centennial Middle School, the reading curriculum incorporates the reading of individual novels and class novels with the types of writing cited above. Each grade level studies various genres and stresses independent reading to create life-long readers. Below are the various genres that may be read at each grade level.

6th grade: Mystery; Myths and Legends; Poetry; and Realistic Fiction and Fantasy. The classics, multiculturalism, and respect for differences will be infused into the program.

7th grade: Fiction and Fantasy; Newberry Awards and Honors; Classics; Adventure; Historical Fiction; Drama; Biography and Autobiography; Nonfiction; Short Stories; and Poetry.

8th grade: U.S. Historical Fiction and Nonfiction; Drama; Short Stories; some Poetry; and Essays and Speeches.

Health

Health is designed to be activity oriented and directly related to the physical, emotional, social and intellectual characteristics and needs of this population of students. The health education program is intended to be taught in such a way that it is relevant to the students' every day lives.

Seventh grade students take a quarter of Health that includes: disease; fitness and nutrition; emotional health (coping with stress, grief, loss and change); peer relations and self-esteem; substance abuse; personal safety; and human sexuality.

Eighth grade students take a semester of Health that includes: media messages; personal safety (abuse, assault, and harassment); substance abuse; emotional health (emotional expression, suicide prevention, and eating disorders); human sexuality; and relationships (choosing positive and healthy friendships).

Mathematics

Math is required for every student. With the variety of skill levels among students, Centennial offers a series of math classes to meet the individual needs of our students. Considerations when registering for math classes are:

- Teacher recommendation
- Standardized tests (generally 90%-tile and above)
- Grades attained in current mathematics class
- Parent and student request

Excellence is a standard in all mathematics classes. It is important to note that grades alone are not a pure indication of a student's mastery of subject matter. For example, an "A" in a class does not necessarily point to a need for acceleration; it is but an indication of student performance in a certain class. There are other factors to consider before movement either up or down is permitted. The student's current math teacher has made a thoughtful recommendation for next year's math course. This recommendation, initialed by the teacher, can be found on the student's registration form. Should you have any questions, contact your child's teacher. Adjustments may be made during the first few weeks of the new session based on individual need.

The following are the mathematical standards for middle school curriculum for Boulder Valley Schools, which will be addressed in all math classes.

- **NUMBER SENSE:** Students understand and use concepts of numbers, number systems and number theory.
- **PATTERNS AND ALGEBRAIC RELATIONSHIPS:** Students understand and use patterns, functions, and concepts of algebra.
- **PROBABILITY AND STATISTICS:** Students understand and use concepts of data collection and analysis, statistics, and probability.
- **GEOMETRY:** Students understand and use geometric concepts, properties, and relationships in one, two and three dimensions.
- **MEASUREMENT:** Students understand and use measurement tools, techniques and systems.
- **COMPUTATIONS:** Students understand and use concepts of operations, and the procedures of computation.

Exploratory Courses

Sixth grade students rotate through four exploratory courses taking one each quarter. The exploratory courses are: Applied Technology, Art, Computing, and Living Skills.

Exploratory Applied Technology: students will work with a partner on units that include robotics, micro-electronics, pneumatics, graphic, design, image processing, satellite communication, computer aided design, residential wiring, CNC programming, and wood fabrication. The units offer multi-level problem solving and enrichment activities.

Exploratory Art: students will experiment with a variety of media to create visual art. The elements of art—line, shape, space, color, value, texture, and mass—are stressed in two-dimensional or three-dimensional work. Students will begin to apply art principles—limitations, dominance, subordination, variety, balance, rhythm, and unity—in their art expression. Students will work toward an appreciation and understanding of fine art.

Exploratory Computing: students are introduced to a variety of technology tools available in their own school. Students will make text documents, create drawings, import their drawings into documents, use clip art files and Internet images, build a spread sheet for data collection and create charts and graphs from that data, use electronic resources and the Internet, practice proper keyboarding techniques, and explore a variety of software applications. This class will cover basic hardware and software operations and help students learn to use the technology tools in their classes.

Exploratory Living Skills: students are introduced to group skills and the way in which people interact in groups; problem solving skills; conflict management skills; active listening skills; and decision-making skills. Skills are introduced through experiential activities, role-playing, and guest speakers. The focus of the course is on communication development and giving students the skills to be able to identify their feelings and emotions, and to appropriately express them.