

At Missouri School for the Blind we believe student success is our first and foremost responsibility. We further believe, that every student learns in an individual way and at an individual rate, therefore, Missouri School for the Blind differentiates instruction to meet the needs of each learner. For student's whose educational program centers on the Show-Me-Standards, as defined in the Grade-Level-Expectations (GLE), curriculum-based and on-going assessment, determine instructional methods, remediation, enrichment, and pacing through the curriculum. The GLE's are designed to meet a wide range of students needs; however, each course may be further differentiated through the IEP process to meet individual student needs. To identify the objectives associated with a specific course, please contact the assigned instructor or the curriculum supervisor.

Missouri School  
for the Blind

# 7th Grade Core Curriculum



### Graded Middle School Curriculum

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## 7<sup>th</sup> Grade Communication Arts (CA7)

By the end of CA 7 students will be able to:

### Reading

- Use the appropriate media: Regular Print, Large Print or Braille to access print media.
- Apply decoding strategies to “problem solve” unknown words when reading.
- Read grade-level instructional text with fluency, accuracy and appropriate expression, adjusting reading rate to difficulty and type of text.
- Develop vocabulary through text, Use roots and affixes, context clues, glossary, dictionary and thesaurus.
- Apply pre-reading strategies to aid comprehension by accessing prior knowledge, previewing, predicting and setting a purpose and rate for reading.
- Utilize strategies to self-question and correct, infer, visualize, and predict and check Use cueing systems (meaning, structure, visual).
- Apply post-reading skills to comprehend and interpret text through questions to clarify, reflect, analyze, draw conclusions, summarize and paraphrase.
- Compare, contrast, analyze and evaluate connections between information and relationships in various fiction and nonfiction works, text ideas and own experiences, text ideas and the world by identifying and explaining how literature reflects a culture and historic time frame.
- Locate, interpret and apply information in title, table of contents and glossary; and recognizing the format of fiction poetry and drama in grade-level text.
- Identify and explain figurative language in poetry and prose (emphasize hyperbole, imagery and symbolism).
- Use details from text to identify plot and sub-plot, theme and various types of conflict, analyze cause and effect, identify and explain point of view and mood, determine how an incident foreshadows a future event, evaluate the problem-solving processes of characters and the effectiveness of solutions.
- Analyze the features of consumer texts, such as

product information and instructional data to clarify meaning.

- Identify and interpret figurative language in nonfiction text (emphasize hyperbole, imagery and symbolism).
- Use details from text to summarize author's ideas, make predictions, make inferences, evaluate the accuracy of information, analyze propaganda techniques, analyze two or more nonfiction texts, identify problem solving processes and explain the effectiveness of solutions.
- Read and follow multi-step directions to complete a task.



### Writing

- Follow a writing process to create appropriate graphic organizers to provide a structure for information and apply the writing process to write effectively in various forms and types of writing.
- Use conventions of capitalization in written text - titles (magazines, newspaper, songs works of art), proper noun (brand names of products, nationalities).
- Compose text, using comma rules for punctuating various sentence structures, correcting format in writing titles, quotation marks in dialogue, colons in business letter salutations.
- Use parts of speech correctly in written text pronouns and **antecedents**, consistent verb tense.
- Write, using correct spelling of grade-level frequently-used words, classroom resources and dictionary to verify correct spelling.
- Compose text, using complex sentences in writing, precise and vivid language, editing to eliminate run-on sentences and cohesive devices.
- Write about personal experiences and revising by adding details and literary devices such as metaphors, analogies and symbols.
- Use a variety of note-taking methods to organize information.

## (CA7 Writing Cont.)

- Write expository and persuasive paragraphs (including compare/contrast and cause/effect) with a strong controlling idea, supporting and concluding sentence, appropriate logical sequence, effective writing techniques (e.g., imagery, humor, point of view and voice), multi-paragraph essays drawing from a variety of sources, responses to literature that show an understanding of theme and characters, using details/examples from the text as support.
- Write a multi-paragraph summary of a newspaper/magazine article, editorial or news program that includes supporting evidence from text.
- Compose text that contain a created chart, graph and/or other graphic organizer based on printed information and write a formal business letter and address an envelope; that address two different audiences and purposed Use appropriate forms (e.g., explain differences between seventh grade and second grade to a parent and to a second grader).

## Speaking and Listening

- Listen for enjoyment for information, for directions, critically to recognize and interpret propaganda techniques.
- Use active-listening behaviors (e.g., ask questions of speaker and uses body language and facial expressions to indicate agreement, disagreement or confusion).
- During discussion and presentations, designated time constraints, media organized notes.
- Give clear and concise multi-step oral directions to complete a complex task.

## Information Literary

- Develop a research plan, with assistance, to guide investigation and research of focus questions.
- Locate and use multiple resources to acquire relevant information, evaluate reliability of information, fulfill research plan.
- Record relevant information Use a variety of note-taking and organizational strategies.
- Document research sources Use a given format.
- Identify and explain techniques used to convey messages in various media (e.g., videos, pictures, web-sites, artwork, plays and/or new programs).

# 7<sup>th</sup> Grade Mathematics (MA 7)

By the end of 7<sup>th</sup> grade Mathematics, students will be able to:

## Numbers and Operations

- Compare and order integers, positive rationals and percents including their approximate location on a number line.
- Use fractions, decimals and percents to solve problems.
- Recognize equivalent representations for the same number and generate them by decomposing and composing numbers including exponential notation.
- Use whole number factors and multiples to describe relationships between and among numbers.
- Describe the effects of multiplication and division on fractions and addition and subtraction on integers.
- Apply properties of operations – including order of operations – to positive rational numbers.
- Approximate the value of square roots to the nearest whole numbers.
- Multiply and divide positive rational numbers.
- Estimate and justify the results of multiplication and division of positive rational numbers.
- Solve problems involving proportions such as scaling and finding equivalent ratios.



## Algebraic Relationships

- Analyze patterns represented graphically or numerically Use words or symbolic rules including recursive notation.
- Compare and contrast various forms of representations of patterns.
- Identify functions as linear or non-linear from tables, graphs or equations.

- Recognize significant changes in temperature and barometric pressure may cause dramatic weather phenomena (i.e., severe thunderstorms, tornadoes, hurricanes)
- Distinguish between renewable (e.g., geothermal, hydroelectric) and nonrenewable e.g., fossil fuel) energy sources.
- Provide examples of how the availability of fresh water for humans and other living organisms is dependent upon the water cycle.

## Composition and Structure of the Universe and the Motion of the Objects Within It

- Classify celestial bodies in the solar system into categories: Sun, moon, planets, and other small bodies (i.e., asteroids, comets, meteors), based on physical properties.
- Compare and contrast the size, composition, atmosphere, and surface of the planets (inner vs. outer) in our solar system and Earth's moon.
- Identify the relative proximity of common celestial bodies (i.e., Sun, moon, planets, smaller celestial bodies such as comets and meteors, other stars) in the sky to the Earth.
- Describe how the Earth's placement in the solar system is favorable to sustain life (i.e., distance from the Sun, temperature, atmosphere).
- Compare and contrast the characteristics of Earth that support life with the characteristics of other planets that are considered favorable or unfavorable to life (e.g., atmospheric gases, extremely high/low temperatures).
- Recognize stars are separated from one another by vast and different distances, which causes stars to appear smaller than the Sun.
- Compare the distance light travels from the Sun to Earth to the distance light travels from other stars to Earth Use light years.
- Relate the apparent east-to-west changes in the positions of the Sun, other stars, and planets in the sky over the course of a day to Earth's counterclockwise rotation about its axis.
- Describe the pattern that can be observed in the changes in number of hours of visible sunlight, and the time and location of sunrise and sunset, throughout the year.
- Recognize, in the Northern Hemisphere, the Sun appears lower in the sky during the winter and higher in the sky during the summer.
- Recognize, in winter, the Sun appears to rise in the Southeast and set in the Southwest, accounting for a relatively short day length, and, in summer, the Sun appears to rise in the Northeast and set in the Northwest, accounting for a relatively long day length.

- Recognize the Sun is never directly overhead when observed from North America.
- Observe the change in time and location of moon rise, moon set, and the moon's appearance relative to time of day and month over several months, and note the pattern in this change.
- Recognize the moon rises later each day due to its revolution around the Earth in a counterclockwise direction.
- Recognize the Moon is in the sky for roughly 12 hours in a 24-hour period (i.e., if the Moon rises at about 6 P.M., it will set at about 6 A.M.).
- Recognize that one half of the Moon is always facing the Sun and, therefore, one half of the Moon is always lit.
- Relate the apparent change in the moon's position in the sky as it appears to move east-to-west over the course of a day to Earth's counterclockwise rotation about its axis.
- Describe how the appearance of the moon that can be seen from Earth changes approximately every 28 days in an observable pattern (moon phases).
- Illustrate and explain a day as the time it takes a planet to make a full rotation about its axis.
- Diagram the path (orbital ellipse) the Earth travels as it revolves around the Sun.
- Illustrate and explain a year as the time it takes a planet to revolve around the Sun.
- Explain the relationships between a planet's length of year (period of revolution) and its position in the solar system.
- Describe how the moon's relative position changes as it revolves around the Earth.
- Recognize the phases of the moon are due to the relative positions of the Moon with respect to the Earth and Sun.
- Relate the axial tilt and orbital position of the Earth as it revolves around the Sun to the intensity of sunlight falling on different parts of the Earth during different seasons.
- Describe how the Earth's gravity pulls any object on or near the Earth toward it (including natural and artificial satellites).
- Describe how the planets' gravitational pull keeps satellites and moons in orbit around them.
- Describe how the Sun's gravitational pull holds the Earth and other planets in their orbits.

## Principles and Properties of Force and Motion

- Describe the circular motion of a moving object as the result of a force acting toward the center.
- Classify different types of motion (e.g., straight line, projectile, circular, vibrational).
- Given an object in motion, calculate its speed (distance/time).
- Interpret a line graph representing an object's motion in terms of distance over time (speed) Use metric units.
- Identify and describe the types of forces acting on an object in motion, at rest, floating/sinking (i.e., type of force, direction, amount of force in Newtons).
- Compare the forces acting on an object by Use a spring scale to measure them to the nearest Newton.
- Recognize every object exerts a gravitational force of attraction on every other object.
- Recognize an object's weight is a measure of the gravitational force of a planet/moon acting on that object.
- Compare the amount of gravitational force acting between objects (which is dependent upon their masses and the distance between them).
- Compare the effects of balanced and unbalanced forces (including magnetic, gravity, friction, push or pull) on an object's motion.
- Explain that when forces (including magnetic, gravity, friction, push or pull) are balanced, objects are at rest or their motion remains constant.
- Explain that a change in motion is the result of an unbalanced force acting upon an object.
- Explain how the acceleration of a moving object is affected by the amount of net force applied and the mass of the object.
- Recognize examples of work being done on an object (force applied and distance moved in the direction of the applied force) with and without the use of simple machines.
- Calculate the amount of work done when a force is applied to an object over a distance ( $W = F \times d$ ).
- Explain how simple machines affect the amount of effort force, distance through which a force is applied, and/or direction of force while doing work.

- Recognize the amount of work output is never greater than the amount of work input, with or without the use of a simple machine.
- Evaluate simple machine designs to determine which design requires the least amount of effort force and explain why.

## Processes and Interactions of the Earth's Systems

- Describe the composition of the Earth's atmosphere (i.e., mixture of gases, water and minute particles) and how it circulates as air masses.
- Describe the role atmosphere (e.g., clouds, ozone) plays in precipitation, reflecting and filtering light from the Sun, and trapping heat energy emitted from the Earth's surface.
- Differentiate between weather and climate.
- Identify factors that affect climate (e.g., latitude, altitude, prevailing wind currents, amount of solar radiation).
- Explain and trace the possible paths of water through the hydrosphere, geosphere, and atmosphere (i.e., the water cycle: evaporation, condensation, precipitation, surface run-off/ groundwater flow).
- Relate the different forms water can take (i.e., snow, rain, sleet, fog, clouds, dew, humidity) as it moves through the water cycle to atmospheric conditions (i.e., temperature, pressure, wind direction and speed, humidity) at a given geographic location.
- Explain how thermal energy is transferred throughout the water cycle by the processes of convection, conduction, and radiation.
- Explain how the differences in surface temperature, due to the different heating and cooling rates of water and soil, affect the temperature and movement of the air above.
- Recognize the characteristics of air masses (i.e., high/low barometric pressure, temperature) and predict their effect on the weather in a given location.
- Identify weather conditions associated with cold fronts and warm fronts.
- Identify factors that affect weather patterns in a particular region (e.g., proximity to large bodies of water, latitude, altitude, prevailing wind currents, amount of solar radiation, location with respect to mountain ranges).
- Collect and interpret weather data (e.g., cloud cover, precipitation, wind speed and direction) from weather instruments and maps to explain present day weather and to predict the next day's weather.

## Geometric and Spatial Relationships

- Classify two- and three- dimensional shapes based on their properties.
- Describe relationships between corresponding sides, corresponding angles, and corresponding perimeters of similar polygons.
- Given ordered pairs, identify geometric shapes in the coordinate plane Use their properties.
- Reposition shapes under informal transformations such as reflection [flip], rotation [turn], and translation [slide].
- Describe the relationship between the scale factor and the perimeter of the image Use dilation – contractions – magnifications – [stretching/shrinking].
- Determine all lines of symmetry of polygons.
- Use special visualizations to identify various two-dimensional views of isometric drawings.
- Draw or use visual models to represent/solve problems.

## Measurement

- Identify and justifying the unit of measure for volume – customary and metric.
- Identify the equivalent area measures within a system of measurement – e.g. square foot to square inch.
- Solve problems involving addition and subtraction of time – hours, minutes and seconds.
- Use tools to measure angles to the nearest degree.
- Describe how to solve problems involving circumference and/or area of a circle.
- Analyze precision and accuracy in measurement situations.
- Convert from one unit to another within a system of measurement – capacity.

## Data and Probability

- Formulate questions, design studies and collect data about a characteristic.
- Select, create and use appropriate graphical representation including circle graphs, histograms, and box plots – box and whiskers.
- Find, use and interpret measures of center and spread including ranges and interquartile range.
- Compare different representations of the same data and evaluate how well each representation shows important aspects of data.

- Use observations about differences between samples to make conjectures about the populations from which the samples were taken.
- Use models to compute the probability of an event.
- Use variable to represent unknown quantities in equations and inequalities
- Generate equivalent forms for simple algebraic expressions.
- Model and solve problems Use multiple representations such as graphs, tables, expressions, equations, or inequalities.
- Compare situations with constant or varying rates of change.



## **7<sup>th</sup> Grade Social Studies (SS 7)**

**By the end of SS 7, students will be able to:**

### Principles of Constitutional Democracy

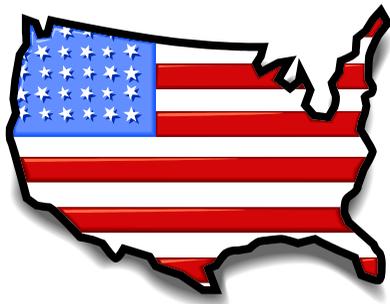
- Analyze responsibilities governments and citizens need to accept to become effective in a constitutional democracy
- Compare and contrast the following: Limited government, rule of law, majority rule, minority rights

### Principles and Processes of Governance Systems

- Compare and contrast limited and unlimited governments (i.e. democratic and authoritarian governments) and how people's lives vary under these systems).

### Economic Concepts and Principles

- Apply the following economic concepts, Investments, Productivity, Gross Domestic Product (GDP), Inflation, Profit and profit motive
- Interpret the past, explain the present and predict future consequences of economic decisions.
- Explain the consequences of personal and public economic decisions.



### Elements of Geographical Study and Analysis

- Use geographic research sources to process and report information to solve problems and construct maps.
- Locate major cities and nations of the world in historical context.
- Locate the world's continents, oceans and major topographic features as civilizations spread.
- Locate and describe geographic places, Use absolute and relative location, especially as people were able to define them more accurately.
- Locate and describe geographic places, Use absolute and relative locations.
- Explain physical characteristics, such as climate, topography, relationship to water and ecosystems.
- Explain human characteristics, such as people's education, language, diversity, economies, religions, settlement patterns, ethnic background and political system.
- Describe how physical processes shape the physical environment.
- Describe a variety of ecosystems, and explain where they may be found and how physical processes and human activities may change them.
- Identify and describe world-wide patterns of resource distribution.
- Identify how technology and culture have influence resources use in the past.
- Identify and explain environment consequences of how people use resources from historical examples.
- Identify and explain the effects of natural forces upon human activities from historical experiences.

- Explain causes and effects of migration streams, movements of people to job markets, barriers to human movement and how people overcome such barriers.
- Explain how regions of the world relate to one another and change over time.
- Use geography to interpret the past, explain the present and plan for the future.

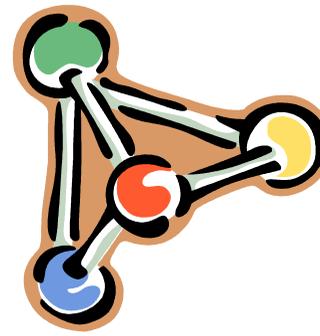
### Relationships of Individual and Groups to Institutions and Traditions

- Analyze how the needs of individuals are met by families, friends, groups and organizations, such as governments, businesses, schools, religious institution and charities in the United States and other nations.
- Analyze how cultural traditions, human actions and institutions affect people's behavior.
- Identify how laws and events affect members of and relationships among groups.
- Evaluate constructive processes or methods for resolving conflicts.

### Tools of Social Science Inquiry



- Select investigate, and present a topic Use primary and secondary resources, such as oral interviews, artifacts, journals, documents, photos and letters.
- Use maps, graphs, statistical data, timelines, charts, and diagrams to interpret, draw conclusions and make predictions.
- Create maps, graphs, timelines and diagrams to communicate information.
- Use technological tools for research and presentation.
- Distinguish between fact and opinion and recognize bias and points of view.
- Identify, research and defend a point of view/position.



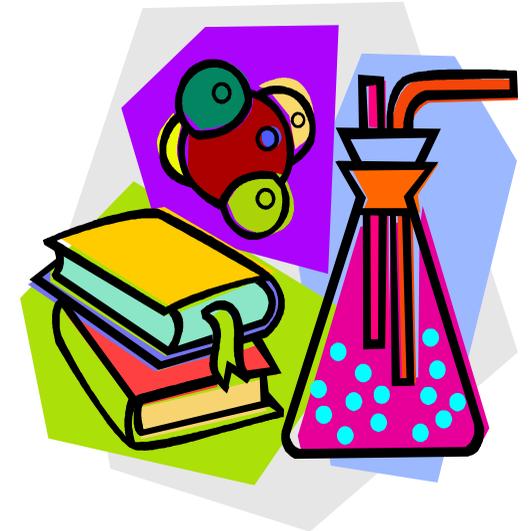
## 7<sup>th</sup> Grade Science (SC 7)

By the end of 7<sup>th</sup> grade, students will be able to:

### Properties and Principles of Matter and Energy

- Describe the relationship between temperature and the movement of atmospheric gases (i.e., warm air rises due to expansion of the volume of gas, cool air sinks due to contraction of the volume of gas).
- Explain that the amount of matter remains constant while being recycled through the water cycle.
- Recognize thermal energy as the random motion (kinetic energy) of molecules or atoms within a substance.
- Use the kinetic molecular model to explain changes in the temperature of a material.
- Recognize thermal energy is transferred as heat from warmer objects to cooler objects until both reach the same temperature (equilibrium).
- Recognize the type of materials that transfer energy by conduction, convection, and/or radiation.
- Describe how heat is transferred by conduction, convection, and radiation, and classify examples of each.
- Classify common materials (e.g., wood, foam, plastic, glass, aluminum foil, soil, air, water) as conductors or insulators of thermal energy.
- Predict the differences in temperature over time on different colored (black and white) objects placed under the same heat source.
- Describe the interactions (i.e., repel, attract) of like and unlike charges (i.e., magnetic, static electric, electrical) (Forms of Energy: Electricity and Magnetism).
- Diagram and identify a complete electric circuit by using a source (battery), means of transfer (wires), and receiver (resistance bulbs, motors, fans).

- Observe and describe the evidence of energy transfer in a closed series circuit.
- Describe the effects of resistance (number of receivers), amount of voltage (number of energy sources), and kind of transfer materials on the current being transferred through a circuit (e.g., brightness of light, speed of motor)
- Classify materials as conductors or insulators of electricity when placed within a circuit (e.g., wood, pencil lead, plastic, glass, aluminum foil, lemon juice, air, water).
- Diagram and distinguish between complete series and parallel circuits.
- Identify advantages and disadvantages of series and parallel circuits.



- Identify solar radiation as the primary source of energy for weather phenomena.
- Identify the different energy transformations that occur between different systems (e.g., chemical energy in battery converted to electricity in circuit converted to light and heat from a bulb).
- Recognize that, during an energy transformation, heat is often transferred from one object (system) to another because of a difference in temperature.
- Recognize energy is not lost but conserved as it is transferred and transformed.