

# Paris Crestwood 7<sup>th</sup> Grade Curriculum Maps

The following document includes the following:

1. 7<sup>th</sup> Grade Standards:

- a. Common Core State Standards for ELA and Mathematics
- b. Next Generation Science Standards for Science
- c. Illinois Learning Standards for Social Studies

2. Scope and Sequences:

- a. Literature (broken into Reading and English/Language Arts)
- b. Mathematics (Go Math)
- c. Science
- d. Health
- e. Social Studies

# Common Core State Standards for English/Language Arts

## **Reading: Literature**

- RL.7.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- RL.7.2 Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.
- RL.7.3 Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).
- RL.7.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.
- RL.7.5 Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning
- RL.7.6 Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.
- RL.7.7 Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).
- RL.7.9 Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.
- RL.7.10 By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

## **Reading: Informational Text**

- RI.7.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- RI.7.2 Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.
- RI.7.3 Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).
- RI.7.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
- RI.7.5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.
- RI.7.6 Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.
- RI.7.7 Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).
- RI.7.8 Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.
- RI.7.9 Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.

- RI.7.10 By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

## **Writing**

- W.7.1 Write arguments to support claims with clear reasons and relevant evidence.
  - W.7.1.a Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.
  - W.7.1.b Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
  - W.7.1.c Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
  - W.7.1.d Establish and maintain a formal style.
  - W.7.1.e Provide a concluding statement or section that follows from and supports the argument presented.
- W.7.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
  - W.7.2.a Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
  - W.7.2.b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
  - W.7.2.c Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
  - W.7.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.
  - W.7.2.e Establish and maintain a formal style.
  - W.7.2.f Provide a concluding statement or section that follows from and supports the information or explanation presented.
- W.7.3 Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
  - W.7.3.a Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
  - W.7.3.b Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
  - W.7.3.c Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
  - W.7.3.d Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
  - W.7.3.e Provide a conclusion that follows from and reflects on the narrated experiences or events.
- W.7.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
- W.7.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 7 here.)

- W.7.6 Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.
- W.7.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
- W.7.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
- W.7.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.
  - W.7.9.a Apply grade 7 Reading standards to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history").
  - W.7.9.b Apply grade 7 Reading standards to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").
- W.7.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

## **Language**

- L.7.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
  - L.7.1.a Explain the function of phrases and clauses in general and their function in specific sentences.
  - L.7.1.b Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.
  - L.7.1.c Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.\*
- L.7.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - L.7.2.a Use a comma to separate coordinate adjectives (e.g., It was a fascinating, enjoyable movie but not He wore an old[,] green shirt).
  - L.7.2.b Spell correctly.
- L.7.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  - L.7.3.a Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.\*
- L.7.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.
  - L.7.4.a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
  - L.7.4.b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel).
  - L.7.4.c Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.

- L.7.4.d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- L.7.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
  - L.7.5.a Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.
  - L.7.5.b Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.
  - L.7.5.c Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).
- L.7.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

# Common Core State Standards for Mathematics

## Ratios & Proportional Relationships

- 7.RP.A.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks  $\frac{1}{2}$  mile in each  $\frac{1}{4}$  hour, compute the unit rate as the complex fraction  $\frac{1/2}{1/4}$  miles per hour, equivalently 2 miles per hour.
- 7.RP.A.2 Recognize and represent proportional relationships between quantities.
  - 7.RP.A.2.a Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
  - 7.RP.A.2.b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
  - 7.RP.A.2.c Represent proportional relationships by equations. For example, if total cost  $t$  is proportional to the number  $n$  of items purchased at a constant price  $p$ , the relationship between the total cost and the number of items can be expressed as  $t = pn$ .
  - 7.RP.A.2.d Explain what a point  $(x, y)$  on the graph of a proportional relationship means in terms of the situation, with special attention to the points  $(0, 0)$  and  $(1, r)$  where  $r$  is the unit rate.
- 7.RP.A.3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

## The Number System

- 7.NS.A.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
  - 7.NS.A.1.a Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.
  - 7.NS.A.1.b Understand  $p + q$  as the number located a distance  $|q|$  from  $p$ , in the positive or negative direction depending on whether  $q$  is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
  - 7.NS.A.1.c Understand subtraction of rational numbers as adding the additive inverse,  $p - q = p + (-q)$ . Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
  - 7.NS.A.1.d Apply properties of operations as strategies to add and subtract rational numbers.
- 7.NS.A.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
  - 7.NS.A.2.a Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as  $(-1)(-1) = 1$  and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.NS.A.2.b Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If  $p$  and  $q$  are

integers, then  $-(p/q) = (-p)/q = p/(-q)$ . Interpret quotients of rational numbers by describing real-world contexts.

- 7.NS.A.2.c Apply properties of operations as strategies to multiply and divide rational numbers.
- 7.NS.A.2.d Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
- 7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers.

### **Expressions & Equations**

- 7.EE.A.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
- 7.EE.A.2 Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example,  $a + 0.05a = 1.05a$  means that "increase by 5%" is the same as "multiply by 1.05."
- 7.EE.B.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional  $1/10$  of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar  $9\frac{3}{4}$  inches long in the center of a door that is  $27\frac{1}{2}$  inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.EE.B.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
  - 7.EE.B.4.a Solve word problems leading to equations of the form  $px + q = r$  and  $p(x + q) = r$ , where  $p$ ,  $q$ , and  $r$  are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?
  - 7.EE.B.4.b Solve word problems leading to inequalities of the form  $px + q > r$  or  $px + q < r$ , where  $p$ ,  $q$ , and  $r$  are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.

### **Geometry**

- 7.G.A.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
- 7.G.A.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
- 7.G.A.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

- 7.G.B.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
- 7.G.B.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
- 7.G.B.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

### **Statistics & Probability**

- 7.SP.A.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
- 7.SP.A.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.
- 7.SP.B.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
- 7.SP.B.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.
- 7.SP.C.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around  $\frac{1}{2}$  indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
- 7.SP.C.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
- 7.SP.C.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.
  - 7.SP.C.7.a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
  - 7.SP.C.7.b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed

paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?

- 7.SP.C.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
  - 7.SP.C.8.a Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
  - 7.SP.C.8.b Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.
  - 7.SP.C.8.c Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?

# Next Generation Science Standards

## **Physical Science**

- MS-PS1-1 Develop models to describe the atomic composition of simple molecules and extended structures.
- MS-PS1-2 Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.
- MS-PS1-3 Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.
- MS-PS1-4 Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.
- MS-PS1-5 Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.
- MS-PS1-6 Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.
- MS-PS2-1 Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.
- MS-PS2-2 Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.
- MS-PS2-3 Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.
- MS-PS2-4 Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.
- MS-PS2-5 Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.
- MS-PS3-1 Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.
- MS-PS3-2 Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.
- MS-PS3-3 Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.
- MS-PS3-4 Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.
- MS-PS3-5 Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.
- MS-PS4-1 Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.
- MS-PS4-2 Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.
- MS-PS4-3 Integrate qualitative scientific and technical information to support the claim that digitized signals are a more reliable way to encode and transmit information than analog signals.

## **Life Science**

- MS-LS1-1 Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.

- MS-LS1-2 Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.
- MS-LS1-3 Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.
- MS-LS1-4 Use argument based on empirical and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.
- MS-LS1-5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
- MS-LS1-6 Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.
- MS-LS1-7 Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.
- MS-LS1-8 Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.
- MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and population of organisms in an ecosystem.
- MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
- MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.
- MS-LS2-4 Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
- MS-LS2-5 Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
- MS-LS3-1 Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.
- MS-LS3-2 Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.
- MS-LS4-1 Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.
- MS-LS4-2 Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.
- MS-LS4-3 Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy.
- MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.
- MS-LS4-5 Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.
- MS-LS4-6 Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.

## **Earth and Space Sciences**

- MS-ESS1-1 Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.
- MS-ESS1-2 Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.
- MS-ESS1-3 Analyze and interpret data to determine scale properties of objects in the solar system.
- MS-ESS1-4 Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.
- MS-ESS2-1 Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.
- MS-ESS2-2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.
- MS-ESS2-3 Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.
- MS-ESS2-4 Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.
- MS-ESS2-5 Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.
- MS-ESS2-6 Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.
- MS-ESS3-1 Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.
- MS-ESS3-2 Analyze and interpret data on natural hazards to forecast catastrophic events and inform the development of technologies to mitigate their effects.
- MS-ESS3-3 Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.
- MS-ESS3-4 Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.
- MS-ESS3-5 Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

## **Engineering and Technology Sciences**

- MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
- MS-ETS1-2 Evaluate competing design solutions using a systemic process to determine how well they meet the criteria and constraints of the problem.
- MS-ETS1-3 Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.
- MS-ETS1-4 Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

# Illinois Learning Standards for Social Studies

## Inquiry Skills

- SS.IS.1.6-8 Create essential questions to help guide inquiry about a topic.
- SS.IS.2.6-8 Ask essential and focusing questions that will lead to independent research.
- SS.IS.3.6-8 Determine sources representing multiple points of view that will assist in organizing a research plan.
- SS.IS.4.6-8.LC Determine the value of sources by evaluating their relevance and intended use.
- SS.IS.4.6-8.MdC Determine the credibility of sources based upon their origin, authority, and context.
- SS.IS.4.6-8.MC Gather relevant information from credible sources and determine whether they support each other.
- SS.IS.5.6-8.LC Appropriately cite all sources utilized.
- SS.IS.5.6-8.MdC Identify evidence from multiple sources to support claims, noting its limitations.
- SS.IS.5.6-8.MC Develop claims and counterclaims while point out the strengths and limitations of both.
- SS.IS.6.6-8.LC Construct arguments using claims and evidence from multiple sources, while acknowledging their strengths and limitations.
- SS.IS.6.6-8.MdC Construct explanations using reasoning, correct sequence, examples and details, while acknowledging their strengths and weaknesses.
- SS.IS.6.6-8.MC Present arguments and explanations that would appeal to audiences and venues outside the classroom using a variety of media.
- SS.IS.7.6-8 Critique the structure and credibility of arguments and explanations (self and others).
- SS.IS.8.6-8.LC Analyze how a problem can manifest itself and the challenges and opportunities faced by those trying to address it.
- SS.IS.8.6-8.MdC Assess individual and collective capacities to take action to address problems and identify potential outcomes.
- SS.IS.8.6-8.MC Apply a range of deliberative and democratic procedures to make decisions and take action in schools and community contexts.

## Civics Standards

- SS.CV.1.6-8.LC Identify roles played by citizens (examples: voters, jurors, taxpayers, military, protesters and office holders).
- SS.CV.1.6-8.MdC Describe the roles of political, civil, and economic organizations in shaping people's lives.
- SS.CV.1.6-8.MC Evaluate the powers and responsibilities of citizens, political parties, interest groups, and the media.
- SS.CV.2.6-8.LC Describe the origins, purposes, and impact of constitutions, laws, treaties, and international agreements.
- SS.CV.2.6-8.MdC Explain the origins, functions, and structure of government with reference to the U.S. Constitution, Illinois Constitution, and other systems of government.
- SS.CV.2.6-8.MC Analyze the power and limits of governments, public officials, and bureaucracies at different levels in the United States and other countries.
- SS.CV.3.6-8 Compare the means by which individuals and groups change societies, promote the common good, and protect rights.
- SS.CV.4.6-8.LC Explain the connection between interests and perspectives, civic virtues, and democratic principles when addressing issues in government and society.

- SS.CV.4.6-8.MdC Analyze the ideas and principles contained in the founding documents of the United States and other countries, and explain how they influence the social and political system.
- SS.CV.4.6-8.MC Critique deliberative processes used by a wide variety of groups in various settings.
- SS.CV.5.6-8 Apply civic virtues and democratic principles in school and community settings.
- SS.CV.6.6-8.LC Determine whether specific rules and laws (both actual and proposed) resolve the problems they were meant to address.
- SS.CV.6.6-8.MdC Analyze the purposes, implementation, and consequences of public policies in historic and contemporary settings.
- SS.CV.6.6-8.MC Develop procedures for making decisions in historic and contemporary settings (such as the school, civil society, or local, state, or national government.)

### **Geography Standards**

- SS.G.1.6-8.LC Use geographic representations (maps, photographs, satellite images, etc.) to explain the relationships between the locations (places and regions) and changes in their environment.
- SS.G.1.6-8.MdC Use mapping and graphing to represent and analyze spatial patterns of different environmental and cultural characteristics.
- SS.G.1.6-8.MC Construct different representations to explain the spatial patterns of cultural and environment characteristics.
- SS.G.2.6-8.LC Explain how humans and their environment affect one another.
- SS.G.2.6-8.MdC Compare and contrast cultural and environmental characteristics of different places or regions.
- SS.G.2.6-8.MC Evaluate how cultural and economic decisions influence environments and the daily lives of people in both nearby and distant places.
- SS.G.3.6-8.LC Explain how environmental characteristics impact human migration and settlement.
- SS.G.3.6-8.MdC Explain how changes in transportation and communication influence the spatial connections among human settlements and affect the spread of ideas and culture.
- SS.G.3.6-8.MC Evaluate the influences of long-term human-induced environmental change on spatial patterns of conflict and cooperation.
- SS.G.4.6-8.LC Identify how cultural and environmental characteristics vary among regions of the world.
- SS.G.4.6-8.MdC Explain how global changes in population distribution patterns affect changes in land use.
- SS.G.4.6-8.MC Analyze how the environmental characteristics of places and production of goods influence patterns of world trade.

### **Economics and Financial Literacy Standards**

- SS.EC.1.6-8.LC Explain how economic decisions affect the well-being of individuals, businesses, and society.
- SS.EC.1.6-8.MdC Explain how external benefits and costs influence choices.
- SS.EC.1.6-8.MC Evaluate alternative approaches or solutions to current economic issues in terms of benefits and costs for different groups and society as a whole.
- SS.EC.2.6-8.LC Analyze the role of innovation and entrepreneurship in a market economy.
- SS.EC.2.6-8.MdC Describe the roles of institutions, such as corporations, non-profits, and labor unions in a market economy.

- SS.EC.2.6-8.MC Explain how changes in supply and demand cause changes in prices and quantities of goods and services, labor, credit, and foreign currencies.
- SS.EC.3.6-8.LC Explain why standards of living increase as productivity improves.
- SS.EC.3.6-8.MdC Explain barriers to trade and how those barriers influence trade among nations.
- SS.EC.3.6-8.MC Evaluate employment, unemployment, inflation, total production, income and economic growth data and how they affect different groups.
- SS.EC.4.6-8.LC Analyze the relationship between skills, education, jobs, and income.
- SS.EC.4.6-8.MdC Identify how people choose to buy goods and services while still maintaining a budget based on income, taxes, savings, and fixed and variable interest rates.
- SS.EC.4.6-8.MC Describe the connection between credit, credit options, and interest and credit history.
- SS.EC.5.6-8.LC Explain the roles and relationships between savers, borrowers, interest, time, and the purposes for saving.
- SS.EC.5.6-8.MdC Explain the correlation between investors, investment options (and associated risks), and income/wealth.
- SS.EC.5.6-8.MC Analyze the relationship between financial risks and protection, insurance and costs.

### **History Standards**

- SS.H.1.6-8.LC Classify series of historical events and developments as examples of change and/or continuity.
- SS.H.1.6-8.MdC Analyze connections among events and developments in broader historical contexts.
- SS.H.1.6-8.MC Use questions generated about individuals and groups to analyze why they, and the developments they shaped, are seen as historically significant.
- SS.H.2.6-8.LC Explain how and why perspectives of people have changed over time.
- SS.H.2.6-8.MdC Analyze multiple factors that influenced the perspectives of people during different historical eras.
- SS.H.2.6-8.MC Analyze how people's perspectives influenced what information is available in the historical sources they created.
- SS.H.3.6-8.LC Classify the kinds of historical sources used in secondary interpretation.
- SS.H.3.6-8.MdC Detect possible limitations in the historical record based on evidence collected from different kinds of historical sources.
- SS.H.3.6-8.MC Use other historical sources to infer a plausible maker, date, place of origin, and intended audience for historical sources where information is not easily identified.
- SS.H.4.6-8.LC Explain multiple causes and effects of historical events.
- SS.H.4.6-8.MdC Compare the central historical arguments in secondary works across multiple media.
- SS.H.4.6-8.MC Organize applicable evidence into a coherent argument about the past.

## 7<sup>th</sup> Grade Reading Scope and Sequence

<b><u>Quarter</u></b>	<b><u>Topic/Story</u></b>	<b><u>Skills</u></b>	<b><u>Common Core State Standards</u></b>
Quarter 1	The Outsiders	Phrases and Clauses, Characterization, Plot Elements, Figurative Language (symbol, metaphor, simile, personification)	L.7.1A, L.7.1C, L.7.5A, L.7.5B, L.7.5C, RL.7.1, RL.7.2, RL.7.3, RL.7.4, RL.7.6
Quarter 2	A Wrinkle in Time	Science Fiction v. Fantasy, Plot Elements, Figurative Language (allusion, symbol)	L.7.5A, RL.7.1, RL.7.2, RL.7.3, RL.7.4
Quarter 3	The Road to Memphis	Historical Fiction, Characterization, Plot Elements, Nonfiction Selections	RL.7.9, RI.7.1, RI.7.2, RI.7.3, RI.7.5
Quarter 4	Greek Mythology	Reading for Information, Journey of a Hero, Allusions in Modern Literature	RL.7.1, RL.7.2, RL.7.3, RL.7.5, RL.7.7

# 7th Grade English/Language Arts Scope and Sequence

COMMON CORE STATE STANDARDS	CHAPTER/TOPIC
<p>CCSS.ELA-LITERACY.L.7.1A Function of phrases and clauses</p>	<p>Chapter 2 – Prepositional Phrases Chapter 8 – Verb Phrases; Clauses (Independent and Subordinate) Chapter 22 – Prepositional Phrases as Adjectives and Adverbs Chapter 25 – Verbal Phrases Chapter 26 – Subordinate Clauses; Adverb Clauses; Adjective Clauses Chapter 27 - Noun Clauses</p>
<p>CCSS.ELA-LITERACY.L.7.1B Simple, compound, complex, and compound-complex sentences</p>	<p>Chapter 6 – Simple Sentences; Compound Sentences Chapter 8 - Complex Sentences; Review of Types of Sentences Chapter 10 – Compound-Complex Sentences; Review of Types of Sentences</p>
<p>CCSS.ELA-LITERACY.L.7.1C Place phrases and clauses within a sentence, looking for modifiers</p>	<p>Chapter 25 – Misplaced and Dangling Modifiers</p>
<p>CCSS.ELA-LITERACY.L.7.2A Use a comma to separate coordinate adjectives</p>	<p>Chapter 1 – Comma Rules Quarter 1 Bootcamp</p>
<p>CCSS.ELA-LITERACY.L.7.2B Spell correctly</p>	<p>Chapter 1 – Contractions; Homonyms; Prefixes and Suffixes Chapter 22 – Making Nouns Plural Rules (Practiced in most chapters)</p>
<p>CCSS.ELA-LITERACY.L.7.3A Choose language that expresses ideas precisely and concisely, eliminating wordiness and redundancy</p>	<p>Bootcamp Writing; <u>The Outsiders</u> Literature Study</p>
<p>CCSS.ELA-LITERACY.L.7.4A Use context clues</p>	<p><u>The Outsiders</u>, <u>A Wrinkle in Time</u>, <u>The Road to Memphis</u>, and Greek Mythology Literature Studies</p>
<p>CCSS.ELA-LITERACY.L.7.4B Use Greek and Latin affixes and roots</p>	<p>Chapter 1 – Roots, Prefixes, and Suffixes (Practiced in most chapters) Bi-Weekly Vocabulary Units</p>
<p>CCSS.ELA-LITERACY.L.7.4C Use reference materials to find the pronunciation of a word or determine its meaning</p>	<p>Bi-Weekly Vocabulary Study with Greek and Latin Roots</p>
<p>CCSS.ELA-LITERACY.L.7.4D Verify the meaning of a word or phrase</p>	<p>All Literature Units</p>
<p>CCSS.ELA-LITERACY.L.7.5A Interpret figures of speech (literary, biblical, mythological)</p>	<p>Chapter 5 – Similes Chapter 7 – Metaphors Chapter 9 – Personification Chapter 11 – Onomatopoeia</p>
<p>CCSS.ELA-LITERACY.L.7.5B Synonyms/Antonyms; Analogies</p>	<p>Chapter 1 – Analogies; Synonyms and Antonyms Introduction (Practiced in most chapters) Bi-Weekly Vocabulary Study with Greek and Latin Roots</p>
<p>CCSS.ELA-LITERACY.L.7.5C Distinguish among connotations with denotations (definitions)</p>	<p><u>A Wrinkle in Time</u> and <u>The Road to Memphis</u> Literature Studies</p>

# 7<sup>th</sup> Grade Mathematics Scope and Sequence

UNIT	MODULE TITLE	# OF LESSONS	COMMON CORE STANDARDS
1 The Number System	1. Adding and Subtracting Integers	4	7.NS.1, 7.NS.2, 7.NS.3
	2. Multiplying and Dividing Integers	3	
	3. Rational Numbers	6	
2 Ratios and Proportional Relationships	4. Rates and Proportionality	3	7.RP.1, 7.RP.2, 7.RP.3
	5. Proportions and Percent	3	
3 Expressions, Equations, and Inequalities	6. Expressions and Equations	4	7.EE.1, 7.EE.2, 7.EE.3, 7.EE.4
	7. Inequalities	3	
4 Geometry	8. Modeling Geometric Figures	4	7.G.1, 7.G.2, 7.G.3, 7.G.4, 7.G.5, 7.G.6
	9. Circumference, Area, and Volume	5	
5 Statistics	10. Random Samples and Populations	3	7.SP.1, 7.SP.2, 7.SP.3, 7.SP.4
	11. Analyzing and Comparing Data	3	
6 Probability	12. Experimental Probability	4	7.SP.5, 7.SP.6, 7.SP.7, 7.SP.8
	13. Theoretical Probability and Simulations	4	

## 7<sup>th</sup> Grade Science Scope and Sequence

UNIT	UNIT TITLE	ANTICIPATED WEEKS TO COMPLETE	NEXT GENERATION SCIENCE STANDARDS
1	Scientific Method Review	1	Multiple Performance Expectations
2	How to Conduct a Valid Experiment	2	Multiple Performance Expectations
3	Waves (Mechanical, Sound, Light, Introduction to Binary Code, Fiber Optics)	4	MS-PS4-1, MS-PS4-2
4	Build a Musical Instrument Project	1	MS-PS4-2
5	Speed and Acceleration	4	MS-PS3-1, MS-PS3-2
6	Newton's Three Laws of Motion	2	MS-PS2-1, MS-PS2-2
7	Action/Reaction Car Project	1	MS-PS2-1
8	Forces (Friction, Gravity, Air Resistance)	2	MS-PS2-3, MS-PS2-4, MS-PS2-5
9	Fluid Pressure (Air Pressure, Hydraulics, Flight)	3	MS-PS2-5
10	Labs – Density of Liquids, Whiligigs, Bubble Olympics, Hydralauic Machines)	2	MS-PS1
11	Work – Simple Machines	1	
12	Catapult Project	1	
13	Energy – Types of Energy, Transferring Energy	2	MS-PS1-4
14	Atoms and Molecules	2	MS-PS1-1, MS-PS1-5
15	Elements and the Periodic Table	2	MS-PS1-2
16	Marie Curie Lab Series	1	MS-PS1-6
17	Chemical Bonds	2	MS-PS-2, MS-PS1-5
18	Electricity and Circuit Building	2	

# 7<sup>th</sup> Grade Health Scope and Sequence

WEEK	MAIN FOCUS POINTS	ILLINOIS LEARNING STANDARDS
1 & 2	<ul style="list-style-type: none"> <li>• Set, prioritize, and share life goals</li> <li>• Understand that planning now can determine future outcomes</li> <li>• Understand that past actions do not have to dictate future decisions</li> <li>• Define and explain "abstinence"</li> <li>• Consider value of sex within marriage</li> <li>• Identify the value of having a plan and practice techniques to resist negative peer pressure</li> <li>• Understand that it is never too late to start making healthy choices</li> </ul>	24.B.3a, 24.C.3a
2 & 3	<ul style="list-style-type: none"> <li>• Identify and define different types of media and consider their purposes</li> <li>• Calculate daily exposure to media and recognize the potential for addiction</li> <li>• Recognize the power of graphic images and their effect on the brain</li> <li>• Determine ways to protect self against use of unhealthy media, including pornography</li> <li>• Identify justification for sex</li> <li>• Recognize physical/emotional/mental/social/financial consequences of non-marital sexual activity</li> <li>• Recognize interconnectedness of at-risk behaviors</li> </ul>	24.B.3a, 24.C.3a
4 & 5	<ul style="list-style-type: none"> <li>• Consider important of early goal making for abstinence</li> <li>• Evaluate the impact of unmarried teen pregnancy for girls and boys</li> <li>• Summarize the process of conception</li> <li>• Define conception and contraception</li> <li>• Evaluate the trend of financial health for children born to unwed mothers</li> <li>• Compare poverty rates for children in various family structures</li> <li>• Identify activities to avoid sexual pressure situations</li> <li>• List possible family structures and characterize the "ideal" family</li> <li>• Explore good and bad perceptions of marriage</li> <li>• Discuss Illinois laws (Safe Haven Law)</li> </ul>	24.B.3a, 24.C.3a
6 & 7	<ul style="list-style-type: none"> <li>• Identify justification for sex</li> <li>• Identify viral vs. non-viral STDs</li> <li>• Assess possible consequences of STDs</li> <li>• Explore strategies to avoid STDs</li> <li>• Discuss the difference between risk education and risk elimination</li> <li>• Inspect a dating relationship based on friendship</li> <li>• Consider character qualities desired in a future mate</li> <li>• Reflect how boundaries and personal guidelines protect</li> <li>• Review the powerful effect that abstinence can have on a relationship</li> </ul>	24.B.3a, 24.C.3a
8 & 9	<ul style="list-style-type: none"> <li>• Conduct group research projects and presentations on health topics</li> </ul>	24.B.3a, 24.C.3a

## 7<sup>th</sup> Grade Social Studies Scope and Sequence

UNIT	UNIT TITLE	ANTICIPATED DAYS TO COMPLETE	ILLINOIS LEARNING STANDARDS
1	Rise of Civilizations	15	SS.H.1.6-8.MdC, SS.H.2.6-8.MdC, SS.H.3.6-8.MdC
2	Ancient Civilizations	15	SS.H.1.6-8.MdC, SS.H.2.6-8.MdC, SS.H.3.6-8.MdC
3	Regional Civilizations	15	SS.H.1.6-8.MdC, SS.H.2.6-8.MdC, SS.H.3.6-8.MdC, SS.G. 2.6-8.MdC, SS.G.4.6-8.MdC
4	Growth of World Empires	45	SS.CV.1.6-8.MdC, SS.CV.3.6-8.MdC, SS.H.2.6-8.MdC
5	Europe Transforms	20	SS.G.4.6-8.MdC
6	Creating the Modern World	35	SS.EC.1.6-8.LC, SS.EC1.6-8.MdC, SS.EC.2.6-8.LC,
7	Nationhood and Interdependence	30	SS.CV.2.6-8.MdC, SS.CV.3.6-8.MdC, SS.CV.4.6-8.MdC, SS.CV.6.6-8.MdC