



DLM
Essential Elements
Supporting the
Illinois Learning
Standards

GRADES
SIXTH - EIGHTH

CONDENSED LIST OF ESSENTIAL ELEMENTS FOR ELA, MATH AND
SCIENCE

WITHOUT STANDARDS ATTACHED

ENGLISH LANGUAGE ARTS – 6th GRADE

READING STANDARDS FOR LITERATURE

Key Ideas and Details

- EE.RL.6.1 Determine what a text says explicitly as well as what simple inferences must be drawn.
- EE.RL.6.2 Identify details in a text that are related to the theme or central idea.
- EE.RL.6.3 Can identify how a character responds to a challenge in a story.

Craft and Structure

- EE.RL.6.4 Determine how word choice changes the meaning in a text.
- EE.RL.6.5 Determine the structure of a text (e.g., story, poem, or drama).
- EE.RL.6.6 Identify words or phrases in the text that describe or show what the narrator or speaker is thinking or feeling.

Integration of Knowledge and Ideas

- EE.RL.6.7 Compare the experience of reading or listening to a written story, drama or poem with the experience of watching video or live performance of the same text.
- EE.RL.6.9 Compare and contrast stories, myths, or texts with similar topics or themes.

Range of Reading and Level of Text Complexity

- EE.RL.6.10 Demonstrate understanding of text while actively reading or listening to stories, dramas, or poetry.

READING STANDARDS FOR INFORMATIONAL TEXT

Key Ideas and Details

- EE.RI.6.1 Analyze a text to determine what it says explicitly as well as what inferences should be drawn.
- EE.RI.6.2 Determine the main idea of a passage and details or facts related to it.
- EE.RI.6.3 Identify a detail that elaborates upon individuals, events, or ideas introduced in a text.

Craft and Structure

- EE.RI.6.4 Determine how word choice changes the meaning of a text.
- EE.RI.6.5 Determine how the title fits the structure of the text.
- EE.RI.6.6 Identify words or phrases in the text that describe or show the author's point of view.

Integration and Knowledge and Ideas

- EE.RI.6.7 Find similarities in information presented in different media or formats as well as in text.
- EE.RI.6.8 Distinguish claims in a text supported by reason.
- EE.RI.6.9 Compare and contrast how two texts describe the same event.

Range of Reading and Level of Text Complexity

- EE.RI.6.10 Demonstrate understanding while actively reading or listening to literary nonfiction.

WRITING STANDARDS

Text Types and Purposes

- EE.W.6.1 Write claims about topics or text.
 - EE.W.6.1.a Write a claim about a topic or text.
 - EE.W.6.1.b Write one or more reasons to support a claim about a topic or text.
- EE.W.6.2 Write to share information supported by details.
 - EE.W.6.2.a Introduce a topic and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.
 - EE.W.6.2.b Provide facts, details, or other information related to the topic.
- EE.W.6.3 Write about events or personal experiences.
 - EE.W.6.3.a Write a narrative about a real or imagined experience introducing the experience and including two or more events.
 - EE.W.6.3.c Use words that establish the time frame.
 - EE.W.6.3.d Use words that convey specific details about the experience or event.

Production and Distribution of Writing

- EE.W.6.4 Produce writing that is appropriate for the task, purpose, or audience.
- EE.W.6.5 With guidance and support from adults and peers, plan before writing and revise own writing.
- EE.W.6.6 Use technology, including the Internet, to produce writing while interacting and collaborating with others.

Research to Build and Present Knowledge

- EE.W.6.7 Conduct short research projects to answer a question.
- EE.W.6.8 Gather information from multiple print and digital sources that relates to a given topic.
- EE.W.6.9 Use information from literary and informational text to support writing.
 - EE.W.6.9.a Apply Essential Elements of Grade 6 Reading Standards to literature (e.g., "Compare a text version of a story, drama, or poem with an audio, video, or live version of the text.").
 - EE.W.6.9.b Apply Essential Elements of Grade 6 Reading Standards to informational texts (e.g., "Can produce an argument by logically organizing the claims and the supporting reasons and evidence.").

Range of Writing

EE.W.6.10 Write routinely for a variety of tasks, purposes, and audiences.

SPEAKING AND LISTENING STANDARDS

Comprehension and Collaboration

EE.SL.6.1 Engage in collaborative discussions.

EE.SL.6.1.a Come to discussions prepared to share information.

EE.SL.6.1.b With guidance and support from adults and peers, follow simple, agreed-upon rules for discussions and contribute information.

EE.SL.6.1.c Ask and answer questions specific to the topic, text, or issue under discussion.

EE.SL.6.1.d Restate key ideas expressed in the discussion.

EE.SL.6.2 Identify information presented in diverse media and formats (e.g., visually, quantitatively, orally) that relates to a topic, text, or issue under study.

EE.SL.6.3 Identify the reasons and evidence supporting the claims made by the speaker.

Presentation of Knowledge and Ideas

EE.SL.6.4 Present findings on a topic including descriptions, facts, or details.

EE.SL.6.5 Select an auditory, visual, or tactual display to clarify the information in presentations.

EE.SL.6.6 Use formal and informal language as appropriate to the communication partner.

LANGUAGE STANDARDS

Conventions of Standard English

EE.L.6.1 Demonstrate standard English grammar and usage when communicating.

EE.L.6.1.a Use personal pronouns (e.g., he, she, they) correctly.

EE.L.6.1.b Use indefinite pronouns.

EE.L.6.2 Demonstrate understanding of conventions of standard English.

EE.L.6.2.a Use question marks at the end of written questions.

EE.L.6.2.b Spell untaught words phonetically, drawing on letter sound relationships and common spelling patterns.

Knowledge of Language

EE.L.6.3 Use language to achieve desired outcomes when communicating.

EE.L.6.3.a Vary use of language when the listener or reader does not understand the initial attempt.

Vocabulary Acquisition And Use

EE.L.6.4 Demonstrate knowledge of word meanings.

EE.L.6.4.a Use context to determine which word is missing from a content area text.

EE.L.6.4.b Use frequently occurring root words (e.g., like) and the words that result when affixes are added (e.g., liked, disliked, liking).

EE.L.6.4.c Seek clarification and meaning support when unfamiliar words are encountered while reading or communicating

EE.L.6.5 Demonstrate understanding of word relationships and use.

EE.L.6.5.a Identify the meaning of simple similes (e.g., The man was as big as a tree.).

EE.L.6.5.b Demonstrate understanding of words by identifying other words with similar and different meanings.

EE.L.6.6 Use general academic and domain-specific words and phrases across contexts.

ENGLISH LANGUAGE ARTS – 7th GRADE
READING STANDARDS FOR LITERATURE

Key Ideas and Details

- EE.RL.7.1 Analyze text to identify where information is explicitly stated and where inferences must be drawn.
- EE.RL.7.2 Identify events in a text that are related to the theme or central idea.
- EE.RL.7.3 Determine how two or more story elements are related.

Craft and Structure

- EE.RL.7.4 Determine the meaning of simple idioms and figures of speech as they are used in a text.
- EE.RL.7.5 Compare the structure of two or more texts (e.g., stories, poems, or dramas).
- EE.RL.7.6 Compare the points of view of two or more characters or narrators in a text.

Integration of Knowledge and Ideas

- EE.RL.7.7 Compare a text version of a story, drama, or poem with an audio, video, or live version of the same text.
- EE.RL.7.9 Compare a fictional time, place, or character in one text with the same time, place, or character portrayed in a historical account.

Range of Reading and Level of Text Complexity

- EE.RL.7.10 Demonstrate understanding of text while actively engaged in reading or listening to stories, dramas, and poetry.

READING STANDARDS FOR INFORMATIONAL TEXT

Key Ideas and Details

- EE.RI.7.1 Analyze text to identify where information is explicitly stated and where inferences must be drawn.
- EE.RI.7.2 Determine two or more central ideas in a text.
- EE.RI.7.3 Determine how two individuals, events or ideas in a text are related.

Craft and Structure

- EE.RI.7.4 Determine how words or phrases are used to persuade or inform a text.
- EE.RI.7.5 Determine how a fact, step, or event fits into the overall structure of the text.
- EE.RI.7.6 Determine an author's purpose or point of view.

Integration and Knowledge and Ideas

- EE.RI.7.7 Compare a text to an audio, video or multimedia version of the same text.
- EE.RI.7.8 Determine how a claim or reason fits into the overall structure of an informational text.
- EE.RI.7.9 Compare and contrast how different texts on the same topic present the details.

Range of Reading and Level of Text Complexity

- EE.RI.7.10 Demonstrate understanding while actively reading or listening to literary nonfiction.

WRITING STANDARDS

Text Types and Purposes

- EE.W.7.1 Write claims about topics or texts.
 - EE.W.7.1.a Introduce a topic or text and write one claim about it.
 - EE.W.7.1.b Write one or more reasons to support a claim about a topic or text.
 - EE.W.7.1.c Use temporal words (first, next, also) to create cohesion.
- EE.W.7.2 Write to share information supported by details.
 - EE.W.7.2.a Introduce a topic and write to convey ideas and information about it including visual, factual, or multimedia information as appropriate.
 - EE.W.7.2.b Provide facts, details, or other information related to the topic.
 - EE.W.7.2.d Select domain-specific vocabulary to use in writing about the topic.
- EE.W.7.3 Write about events or personal experiences. Write about events or personal experiences.
 - EE.W.7.3.a Write a narrative about a real or imagined experience introducing the experience, at least one character, and two or more events.
 - EE.W.7.3.c Use temporal words (e.g., first, then, next) to signal order.
 - EE.W.7.3.d Use words that describe feelings of people or characters in the narrative.

Production and Distribution of Writing

- EE.W.7.4 Produce writing that is appropriate for the task, purpose, or audience.
- EE.W.7.5 With guidance and support from adults and peers, plan before writing and revise own writing.
- EE.W.7.6 Use technology, including the Internet, to produce writing to interact and collaborate with others.

Research to Build and Present Knowledge

- EE.W.7.7 Conduct research to answer a question based on multiple sources of information.
- EE.W.7.8 Identify quotes providing relevant information about a topic from multiple print or digital sources.
- EE.W.7.9 Use information from literary and informational text to support writing.
 - EE.W.7.9.a Apply Essential Elements of Grade 7 Reading Standards to literature (e.g., “Recognize the difference between fictional characters and nonfictional characters.”).
 - EE.W.7.9.b Apply Essential Elements of Grade 7 Reading Standards to informational texts (e.g., “Use relevant and sufficient evidence for supporting the claims and argument.”).

Range of Writing

- EE.W.7.10 Write routinely for a variety of tasks, purposes, and audiences.

SPEAKING AND LISTENING STANDARDS

Comprehension and Collaboration

- EE.SL.7.1 Engage in collaborative discussions.
 - EE.SL.7.1.a Come to discussions prepared to share information.
 - EE.SL.7.1.b With guidance and support from adults and peers, follow simple, agreed-upon rules for discussions and carry out assigned roles.
 - EE.SL.7.1.c Remain on the topic of the discussion when answering questions or making other contributions to a discussion.
 - EE.SL.7.1.d Acknowledge new information expressed by others in a discussion.
- EE.SL.7.2 Identify details related to the main idea of a text presented orally or through other media.
- EE.SL.7.3 Determine whether the claims made by a speaker are fact or opinion.

Presentation of Knowledge and Ideas

- EE.SL.7.4 Present findings on a topic including relevant descriptions, facts, or details.
- EE.SL.7.5 Select or create audio recordings and visual/tactile displays to emphasize specific points in a presentation.
- EE.SL.7.6 Communicate precisely (i.e., provide complete information) or efficiently (i.e., telegraphic communication) as required by the context, task, and communication partner.

LANGUAGE STANDARDS

Conventions of Standard English

- EE.L.7.1 Demonstrate standard English grammar and usage when communicating.
 - EE.L.7.1.b Produce complete simple sentences when writing or communicating.
- EE.L.7.2 Demonstrate understanding of conventions of standard English.
 - EE.L.7.2.a Use end punctuation when writing a sentence or question.
 - EE.L.7.2.b Spell words phonetically, drawing on knowledge of letter sound relationships and/or common spelling patterns.

Knowledge of Language

- EE.L.7.3 Use language to achieve desired outcomes when communicating.
 - EE.L.7.3.a Use precise language as required to achieve desired meaning.

Vocabulary Acquisition And Use

- EE.L.7.4 Demonstrate knowledge of word meanings.
 - EE.L.7.4.a Use context to determine which word is missing from a text.
 - EE.L.7.4.b Use frequently occurring root words (e.g., like) and the words that result when affixes are added (e.g., liked, disliked, liking).
 - EE.L.7.4.c Seek clarification and meaning support when unfamiliar words are encountered while reading or communicating.
- EE.L.7.5 Demonstrate understanding of word relationships and use.
 - EE.L.7.5.a Identify the literal and nonliteral meanings of words in context.
 - EE.L.7.5.b Demonstrate understanding of synonyms and antonyms.
- EE.L.7.6 Use general academic and domain-specific words and phrases across contexts.

ENGLISH LANGUAGE ARTS – 8th GRADE

READING STANDARDS FOR LITERATURE

Key Ideas and Details

- EE.RL.8.1 Cite text to support inferences from stories and poems.
- EERL.8.2 Recount an event related to the theme or central idea, including details about character and setting.
- EE.RL.8.3 Identify which incidents in a story or drama lead to subsequent action.

Craft and Structure

- EERL.8.4 Determine connotative meanings of words and phrases in a text.
- EE.RL.8.5 Compare and contrast the structure of two or more texts.
- EE.RL.8.6 Determine the difference in the points of view of a character and the audience or reader in a text with suspense or humor.

Integration of Knowledge and Ideas

- EE.RL.8.7 Compare and contrast a text version of a story, drama, or poem with an audio, video, or live version of the same text.
- EE.RL.8.9 Compare and contrast themes, patterns of events, or characters across two or more stories or dramas.

Range of Reading and Level of Text Complexity

- EE.RL.8.10 Demonstrate understanding of text while actively engaged in reading or listening to stories, dramas, and poetry.

READING STANDARDS FOR INFORMATIONAL TEXT

Key Ideas and Details

- EE.RI.8.1 Cite text to support inferences from informational text.
- EE.RI.8.2 Provide a summary of a familiar informational text.
- EE.RI.8.3 Recount events in the order they were presented in the text.

Craft and Structure

- EE.RI.8.4 Determine connotative meanings of words and phrases in a text.
- EE.RI.8.5 Locate the topic sentence and supporting details in a paragraph.
- EE.RI.8.6 Determine an author's purpose or point of view and identify examples from text to that describe or support it.

Integration and Knowledge and Ideas

- EE.RI.8.7 Determine whether a topic is best presented as audio, video, multimedia, or text.
- EE.RI.8.8 Determine the argument made by an author in an informational text.
- EE.RI.8.9 Identify where two different texts on the same topic differ in their interpretation of the details.

Range of Reading and Level of Text Complexity

- EE.RI.8.10 Demonstrate understanding while actively reading or listening to literary nonfiction.

WRITING STANDARDS

Text Types and Purposes

- EE.W.8.1 Write claims about topics or texts.
 - EE.W.8.1.a Introduce the claim and provide reasons or pieces of evidence to support it.
 - EE.W.8.1.b Write reasons to support a claim about a topic or text.
- EE.W.8.2 Write to share information supported by details.
 - EE.W.8.2.a Introduce a topic clearly and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.
 - EE.W.8.2.b Write one or more facts or details related to the topic.
 - EE.W.8.2.c Write complete thoughts as appropriate.
 - EE.W.8.2.d Use domain specific vocabulary related to the topic.
 - EE.W.8.2.f Provide a closing.
- EE.W.8.3 Write about events or personal experiences.
 - EE.W.8.3.a Write a narrative about a real or imagined experience introducing the experience, at least one character, and two or more events.
 - EE.W.8.3.c Use temporal words (e.g., first, then, next) to signal order.
 - EE.W.8.3.d Use words that describe the feelings of characters or provide other sensory information about the setting, experiences, or events.
 - EE.W.8.3.e Provide a closing.

Production and Distribution of Writing

- EE.W.8.4 Produce writing that is appropriate for the task, purpose, or audience.
- EE.W.8.5 With guidance and support from adults and peers, plan before writing and revise own writing.
- EE.W.8.6 Use technology, including the Internet, to produce writing to interact and collaborate with others.

Research to Build and Present Knowledge

- EE.W.8.7 Conduct short research projects to answer and pose questions based on one source of information.
- EE.W.8.8 Select quotes providing relevant information about a topic from multiple print or digital sources.
- EE.W.8.9 Use information from literary and informational text to support writing.
 - EE.W.8.9.a Apply Essential Elements of Grade 8 Reading Standards to literature (e.g., “Compare and contrast themes, patterns of events, or characters across two or more stories or dramas.”).
 - EE.W.8.9.b Apply Essential Elements of Grade 8 Reading Standards to informational texts (e.g., “Use relevant and sufficient evidence for supporting the claims and argument.”).

Range of Writing

- EE.W.8.10 Write routinely for a variety of tasks, purposes, and audiences.

SPEAKING AND LISTENING STANDARDS

Comprehension and Collaboration

- EE.SL.8.1 Engage in collaborative discussions.
 - EE.SL.8.1.a Come to discussions prepared to share information previously studied.
 - EE.SL.8.1.b Follow simple rules and carry out assigned roles during discussions.
 - EE.SL.8.1.c Remain on the topic of the discussion when asking or answering questions or making other contributions to a discussion.
 - EE.SL.8.1.d Acknowledge new information expressed by others in a discussion and relate it to own ideas.
- EE.SL.8.2 Determine the purpose of information presented in graphic, oral, visual, or multimodal formats.
- EE.SL.8.3 Determine the argument made by a speaker on a topic.

Presentation of Knowledge and Ideas

- EE.SL.8.4 Present descriptions, facts, or details supporting specific points made on a topic.
- EE.SL.8.5 Include multimedia and visual information into presentations.
- EE.SL.8.6 Adapt communication to a variety of contexts and tasks.

LANGUAGE STANDARDS

Conventions of Standard English

- EE.L.8.1 Demonstrate standard English grammar and usage when communicating.
 - EE.L.8.1.b Form and use the simple verb tenses (e.g., I walked, I walk, I will walk).
 - EE.L.8.1.c Use appropriate verbs to match nouns.
- EE.L.8.2 Demonstrate understanding of conventions of standard English.
 - EE.L.8.2.a Use end punctuation and capitalization when writing a sentence or question.
 - EE.L.8.2.c Spell words phonetically, drawing on knowledge of letter sound relationships and/or common spelling patterns.

Knowledge of Language

- EE.L.8.3 Use language to achieve desired outcomes when communicating.
 - EE.L.8.3.a Use to-be verbs (am, are, is, was, were, be, become, became) accurately when writing and communicating.

Vocabulary Acquisition And Use

- EE.L.8.4 Demonstrate knowledge of word meanings.
 - EE.L.8.4.a Use context to determine which word is missing from a content area text.
 - EE.L.8.4.b Use frequently occurring root words (e.g., like) and the words that result when affixes are added (e.g., liked, disliked, liking).
 - EE.L.8.4.c Seek clarification and meaning support when unfamiliar words are encountered while reading or communicating.
- EE.L.8.5 Demonstrate understanding of word relationships and use.
 - EE.L.8.5.a Demonstrate understanding of the use of multiple meaning words.
 - EE.L.8.5.b Use knowledge of common words to understand the meaning of compound and complex words in which they appear (e.g., birdhouse, household).
 - EE.L.8.5.c Use descriptive words to add meaning when writing and communicating.
- EE.L.8.6 Use general academic and domain-specific words and phrases across contexts.

STANDARDS FOR MATHEMATICAL PRACTICE**MP**

- MP.1 Make sense of problems and persevere in solving them.
- MP.2 Reason abstractly and quantitatively.
- MP.3 Construct viable arguments and critique the reasoning of others.
- MP.4 Model with mathematics.
- MP.5 Use appropriate tools strategically.
- MP.6 Attend to precision.
- MP.7 Look for and make use of structure.
- MP.8 Look for and express regularity in repeated reasoning.

MATHEMATICS – 6th GRADE**GEOMETRY****G**

Solve real-world and mathematical problems involving area, surface area, and volume.

- EE.6.G.1. Solve real-world and mathematical problems about area using unit squares.
- EE.6.G.2. Solve real-world and mathematical problems about volume using unit cubes.

RATIOS AND PROPORTIONAL RELATIONSHIPS**RP**

Understand ratio concepts and use ratio reasoning to solve problems.

- EE.6.RP.1. Demonstrate a simple ratio relationship.

THE NUMBER SYSTEM**NS**

Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

- EE.6.NS.1. Compare the relationships between two unit fractions.
- Compute fluently with multi-digit numbers and find common factors and multiples.*
- EE.6.NS.2. Apply the concept of fair share and equal shares to divide.
- EE.6.NS.3. Solve two-factor multiplication problems with products up to 50 using concrete objects and/or a calculator.

Apply and extend previous understandings of numbers to the system of rational numbers.

- EE.6.NS.5–8. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).

EXPRESSIONS AND EQUATIONS**EE**

Apply and extend previous understandings of arithmetic to algebraic expressions.

- EE.6.EE.1–2. Identify equivalent number sentences.
- EE.6.EE.3. Apply the properties of addition to identify equivalent numerical expressions.

Reason about and solve one-variable equations and inequalities.

- EE.6.EE.5–7. Match an equation to a real-world problem in which variables are used to represent numbers.

STATISTICS AND PROBABILITY**SP**

Develop understanding of statistical variability.

- EE.6.SP.1–2. Display data on a graph or table that shows variability in the data.

Summarize and describe distributions.

- EE.6.SP.5. Summarize data distributions shown in graphs or tables.

MATHEMATICS – 7th GRADE**GEOMETRY****G**

Draw, construct, and describe geometrical figures and describe the relationships between them.

EE.7.G.1. Match two similar geometric shapes that are proportional in size and in the same orientation.

EE.7.G.2. Recognize geometric shapes with given conditions.

EE.7.G.3. Match a two-dimensional shape with a three-dimensional shape that shares an attribute.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

EE.7.G.4. Determine the perimeter of a rectangle by adding the measures of the sides.

EE.7.G.5. Recognize angles that are acute, obtuse, and right.

EE.7.G.6. Determine the area of a rectangle using the formula for length \times width, and confirm the result using tiling or partitioning into unit squares.

RATIOS AND PROPORTIONAL RELATIONSHIPS**RP**

Analyze proportional relationships and use them to solve real-world and mathematical problems.

EE.7.RP.1–3. Use a ratio to model or describe a relationship.

THE NUMBER SYSTEM**NS**

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

EE.7.NS.1. Add fractions with like denominators (halves, thirds, fourths, and tenths) with sums less than or equal to one.

EE.7.NS.2.a. Solve multiplication problems with products to 100.

EE.7.NS.2.b. Solve division problems with divisors up to five and also with a divisor of 10 without remainders.

EE.7.NS.2.c–d. Express a fraction with a denominator of 10 as a decimal.

EE.7.NS.3. Compare quantities represented as decimals in real-world examples to tenths.

EXPRESSIONS AND EQUATIONS**EE**

Use properties of operations to generate equivalent expressions.

EE.7.EE.1. Use the properties of operations as strategies to demonstrate that expressions are equivalent.

EE.7.EE.2. Identify an arithmetic sequence of whole numbers with a whole number common difference.

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

EE.7.EE.4. Use the concept of equality with models to solve one-step addition and subtraction equations.

STATISTICS AND PROBABILITY**SP**

Use random sampling to draw inferences about a population.

EE.7.SP.1–2. Answer a question related to the collected data from an experiment, given a model of data, or from data collected by the student.

Draw informal comparative inferences about two populations.

EE.7.SP.3. Compare two sets of data within a single data display such as a picture graph, line plot, or bar graph.

Investigate chance processes and develop, use, and evaluate probability models.

EE.7.SP.5–7. Describe the probability of events occurring as possible or impossible.

MATHEMATICS – 8th GRADE**GEOMETRY****G***Understand congruence and similarity using physical models, transparencies, or geometry software.***EE.8.G.1.** Recognize translations, rotations, and reflections of shapes.**EE.8.G.2.** Identify shapes that are congruent.**EE.8.G.4.** Identify similar shapes with and without rotation.**EE.8.G.5.** Compare any angle to a right angle, and describe the angle as greater than, less than, or congruent to a right angle.*Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.***EE.8.G.9.** Use the formulas for perimeter, area, and volume to solve real-world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).**THE NUMBER SYSTEM****NS***Know that there are numbers that are not rational, and approximate them by rational numbers.***EE.8.NS.1.** Subtract fractions with like denominators (halves, thirds, fourths, and tenths) with minuends less than or equal to one.**EE.8.NS.2.a.** Express a fraction with a denominator of 100 as a decimal.**EE.8.NS.2.b.** Compare quantities represented as decimals in real-world examples to hundredths.**EXPRESSIONS AND EQUATIONS****EE***Work with radicals and integer exponents.***EE.8.EE.1.** Identify the meaning of an exponent (limited to exponents of 2 and 3).**EE.8.EE.2.** Identify a geometric sequence of whole numbers with a whole number common ratio.**EE.8.EE.3–4.** Compose and decompose whole numbers up to 999.*Understand the connections between proportional relationships, lines, and linear equations.***EE.8.EE.5–6.** Graph a simple ratio by connecting the origin to a point representing the ratio in the form of y/x . For example, when given a ratio in standard form (2:1), convert to $2/1$, and plot the point (1,2).*Analyze and solve linear equations and pairs of simultaneous linear equations.***EE.8.EE.7.** Solve simple algebraic equations with one variable using addition and subtraction.**STATISTICS AND PROBABILITY****SP***Investigate patterns of association in bivariate data.***EE.8.SP.4.** Construct a graph or table from given categorical data, and compare data categorized in the graph or table.**FUNCTIONS****F***Define, evaluate, and compare functions.***EE.8.F.1–3.** Given a function table containing at least 2 complete ordered pairs, identify a missing number that completes another ordered pair (limited to linear functions).*Use functions to model relationships between quantities.***EE.8.F.4.** Determine the values or rule of a function using a graph or a table.**EE.8.F.5.** Describe how a graph represents a relationship between two quantities.

SCIENCE (NGSS) – 6th- 8th GRADE

PHYSICAL SCIENCE

MATTER AND ITS INTERACTIONS

STUDENTS WHO DEMONSTRATE UNDERSTANDING CAN.....

- EE.MS-PS1-2** **Target Level:** Interpret and analyze data on the properties (e.g., color, texture, odor, and state of matter) of substances before and after chemical changes have occurred (e.g., burning sugar or burning steel wool, rust, effervescent tablets).
Precursor Level: Gather data on the properties (e.g., color, texture, odor, and state of matter) of substances before and after chemical changes have occurred (e.g., burning sugar or burning steel wool, rust, effervescent tablets).
Initial Level: Observe and identify examples of change (e.g. state of matter, color, temperature, and odor).

MOTION AND STABILITY: FORCES AND INTERACTIONS

- EE.MS-PS2-2** **Target Level:** Investigate and predict the change in motion of objects based on the forces acting on those objects.
Precursor Level: Investigate and identify ways to change the motion of an object (e.g., change an incline's slope to make an object go slower, faster, farther).
Initial Level: Identify ways to change the movement of an object (e.g., faster, slower, stop).

ENERGY

- EE.MS-PS3-3** **Target Level:** Test and refine a device (e.g., foam cup, insulated box, or thermos) to either minimize or maximize thermal energy transfer (e.g., keeping liquids hot or cold, preventing liquids from freezing, keeping hands warm in cold temperatures).
Precursor Level: Investigate objects/materials, and predict their ability to maximize or minimize thermal energy transfer.
Initial Level: Identify objects/materials used to minimize or maximize thermal energy transfer (e.g., gloves, vacuum flask, insulated hot pad holder or foam cup).

WAVES AND THEIR APPLICATIONS IN TECHNOLOGIES FOR INFORMATION TRANSFER

- EE.MS-PS4-2** **Target Level:** Use a model to show how light waves (e.g., light through a water glass, light on colored objects) or sound waves are reflected, absorbed, or transmitted through various materials (e.g., water, air, table).
Precursor Level: Investigate changes in vibrations and sources of sound in everyday life.
Initial Level: Use a model to recognize that sound waves are transmitted by vibrations.

LIFE SCIENCE

FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES

- EE.MS-LS1-3** **Target Level:** Make a claim about how a structure (e.g., organs and organ systems) and its related function supports survival of animals (circulatory, digestive, and respiratory systems).
Precursor Level: Use a model to demonstrate how organs are connected in major organ systems.
Initial Level: Recognize major organs of animals.
- EE.MS-LS1-5** **Target Level:** Interpret data to show that environmental resources (e.g., food, light, space, water) influence growth of organisms (e.g., drought decreasing plant growth, fertilizer increasing plant growth, different varieties of plant seeds growing at different rates in different conditions, fish growing larger in large ponds than small ponds).
Precursor Level: Identify factors that influence growth of organisms.
Initial Level: Match organisms to their habitats.

ECOSYSTEMS: INTERACTIONS, ENERGY, AND DYNAMICS

- EE.MS-LS2-2** **Target Level:** Use models of food chains/webs to identify producers and consumers in aquatic and terrestrial ecosystems.
Precursor Level: Classify animals based on what they eat (e.g., herbivore, omnivore, carnivore).
Initial Level: Identify food that animals eat.

HEREDITY: INHERITANCE AND VARIATION OF TRAITS

- EE.MS-LS3-2** **Target Level:** Make a claim supported by evidence that offspring inherit traits from their parents.
Precursor Level: Identify similarities and differences between plant and animal parents and their offspring (e.g., eye color, hair/fur color, height, leaf shape, and/or markings).
Initial Level: Recognize that organisms differ within same species (e.g., dogs, chickens, oaks that differ in color and size).

EARTH AND SPACE

EARTH'S PLACE IN THE UNIVERSE

- EE.MS-ESS1-1** **Target Level:** Use an Earth-Sun-Moon model to show that Earth's orbit around the Sun corresponds to a calendar year and the orbit of the Moon around Earth corresponds to a month.
Precursor Level: Use a model to show that Earth's Moon moves around Earth, and Earth and its Moon move around the Sun.
Initial Level: Recognize models of the Earth, Moon, and Sun system.

EARTH'S SYSTEMS

- EE.MS-ESS2-1** **Target Level:** Use a model to describe the change within the rock cycle between igneous, metamorphic, and sedimentary rock.
Precursor Level: Use a model to describe the change from igneous to sedimentary rock.
Initial Level: Identify the process that forms igneous rock (e.g., volcanoes).
- EE.MS-ESS2-2** **Target Level:** Explain how geoscience processes that occur daily (e.g., wind, rain, runoff) slowly change the surface of Earth, while catastrophic events (e.g., earthquakes, tornadoes, floods) can quickly change the surface of Earth.
Precursor Level: Identify geoscience processes (e.g., wind, rain, runoff) that have an impact on landforms (e.g., landslides, erosion such as gullies).
Initial Level: Identify differences in weather conditions from day to day.

- EE.MS-ESS2-6** **Target Level:** Interpret basic weather information (e.g., radar, map) to make predictions about future conditions (e.g., precipitation, temperature, wind).
Precursor Level: Interpret basic weather information (e.g., radar, map) to compare weather conditions (either over several days at the same location or different locations on the same day).
Initial Level: Interpret basic weather information (e.g., radar, map) to identify weather conditions.

EARTH AND HUMAN ACTIVITY

- EE.MS-ESS3-1** **Target Level:** Interpret, based on evidence, how the geoscience processes (e.g., weathering, erosion) create resources.
Precursor Level: Identify the geoscience process that produces a natural resource (e.g., solar energy creating wind energy, rock cycle with ores and minerals).
Initial Level: Identify a natural resource (e.g., water, sand, wind).
- EE.MS-ESS3-3** **Target Level:** Develop a plan to monitor and minimize a human impact on the local environment (e.g., water, land, pollution).
Precursor Level: Recognize ways in which humans impact the environment (e.g., agriculture, pollution, recycling, city growth).
Initial Level: Recognize resources (e.g., food, water, shelter, air) in the local environment that are important for human life.

Resources

Dynamic Learning Maps: Illinois Page

This provides districts specific information with regards to the Dynamic Learning Maps-Alternate Assessment for Illinois

<http://dynamiclearningmaps.org/illinois>

Professional Development

This provides districts professional development for how to implement the Essential Elements within the classroom.

<http://dlmpd.com/>

Illinois Learning Standards Teacher Resources

Illinois Classrooms in Action – Your first stop for K-12 resources! All of these books can be downloaded from this website under the “Standards Books” page. (www.ilclassroomsinaction.org/standardsbooks.html)

www.ilclassroomsinaction.org