

Third Grade

ELA: Literature (A - Fiction) & Informational Text (B - Non-Fiction)

Standards Statement

1. (A) (B) Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Ask questions to show understanding.

Answer questions to show understanding.

Standards Statement

2. (A) Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.

Retell stories.

Retell fables.

Tell the meaning (central message) of the story.

Tell the meaning of the story using key details.

- (B) Determine the main idea of a text; recount the key details and explain how they support the main idea

Tell the main idea of a text.

Tell the key details of a text and how they support the main idea.

Standards Statement

3. (A) Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

Describe characters.

Explain how characters' actions lead to the order (sequence) of events.

- (B) Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Explain the relationship of events, ideas and procedures found in an informational text.

Use vocabulary that relates to time, sequence and cause/effect.

Standards Statement

4. (A) Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Explain the meaning of words and phrases from a text.

Identify the difference between literal and nonliteral language.

- (B) Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.

Tell the meaning of domain specific words in a text.

Third Grade

ELA: Literature (A - Fiction) & Informational Text (B - Non-Fiction) Cont.

Standards Statement

5. (A) Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.

Understand that stories, dramas and poems use different terms for their parts.

(B) Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

Use text features and search tools to locate information.

Standards Statement

6. (A) Distinguish their own point of view from that of the narrator or those of the characters.

Explain the narrator's or character's point of view.

Explain the author's point of view.

(B) Distinguish their own point of view from that of the author of a text.

Explain the author's point of view.

Explain my point of view.

Standards Statement

7. (A) Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).

Identify how pictures in a story help to tell the meaning of a story.

(B) Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

Use illustrations in an informational text to show my understanding of the text.

Standards Statement

8. (A) Not applicable to literature)

(B) Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).

Name words an author uses to connect sentences and paragraphs in a text.

Standards Statement

9. (A) Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).

Identify themes, settings and plots that are similar in stories written by the same author

Identify themes, settings and plots that are different in stories by the same author.

Third Grade

ELA: Literature (A - Fiction) & Informational Text (B - Non-Fiction) Cont.

(B) Compare and contrast the most important points and key details presented in two texts on the same topic.

Compare and contrast important points and key details from two texts on the same topics

Standards Statement

10.**(A)** By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2-3 text complexity band independently and proficiently.

Read and comprehend stories in the grade 2-3 level.

(B) By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2-3 text complexity band independently and proficiently.

Read informational texts at the appropriate grade level.

Reading Foundational Skills

Standards Statement

1. N/A

Standards Statement

2. N/A

Standards Statement

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 a. Identify and know the meaning of the most common prefixes and derivational suffixes.
 b. Decode words with common Latin suffixes.
 c. Decode multi-syllable words.
 d. Read grade-appropriate irregularly spelled words .

Identify and know the most common prefixes and suffixes.

Tell the meaning of words with common Latin suffixes.

Break multi-syllable words into parts to help me decode words.

Read irregularly spelled words.

Standards Statement

4. Read with sufficient accuracy and fluency to support comprehension.
 a. Read grade-level text with purpose and understanding.
 b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.
 c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Third Grade

Reading Foundational Skills – Cont.

- Read with fluency.
- Read at the appropriate rate and expression.
- Self-correct using context clues.

Writing

Standards Statement

1. Write opinion pieces on topics or texts, supporting a point of view with reasons.
- a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
 - b. Provide reasons that support the opinion.
 - c. Use linking words and phrases (e.g., *because, therefore, since, for example*) to connect opinion and reasons).
 - d. Provide a concluding statement or section.

- Introduce a topic, state an opinion, and create an organizational structure.
- Support my opinion.
- Use linking words to connect opinion with reasons.
- Write a concluding statement.

Standards Statement

2. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
 - b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
 - c. Use temporal words and phrases to signal event order.
 - d. Provide a sense of closure.

- Introduce a topic, put related information together, add illustrations to help in comprehension.
- Write about a topic using facts, definitions, and details.
- Write a concluding statement about a topic.

Standards Statement

3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
 - b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
 - c. Use temporal words and phrases to signal event order.

Third Grade

Writing – Cont.

d. Provide a sense of closure

Describe a narrative text.

Write a narrative describing a situation, introducing a narrator, and put the events in order.

Use temporal words to show an order of events.

Write an ending to the narrative.

Standards Statement

4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1-3 above).

Organize my thoughts before writing

Revise my thoughts

Write to a specific task

Standards Statement

5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

Organize my thoughts before writing.

Revise my writing.

Check my writing for errors.

Standards Statement

6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

Use technology to help me with my writing.

Standards Statement

7. Conduct short research projects that build knowledge about a topic.

Research a topic.

Standards Statement

8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Use past experiences for information.

Use print or digital sources for information.

Take notes from my sources.

Third Grade

Writing – Cont.

- Put the information into categories.

Standards Statement

9. (Begins in grade 4)

Standards Statement

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.

- Write over both extended and short periods of time.

- Write to a purpose.

- Write to a specific audience.

Speaking & Listening

Standard Statement

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
 - b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
 - c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
 - d. Explain their own ideas and understanding in light of the discussion.

- Come prepared to talk with others about a topic.

- Follow rules for discussions.

- Join in the discussion.

- Demonstrate understanding of the information.

- Ask questions to better understand.

- Answer questions to better understand.

- Explain my ideas.

Standards Statement

2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

- Point out the main and supporting details of a text read aloud.

Third Grade

Speaking & Listening – Cont.

- Identify information from different formats that support main ideas.

Standards Statement

3. Ask and answer questions about information from a speaker offering appropriate elaboration and detail.

- Ask questions about a speaker's presentation.

- Using elaboration answer questions about a speaker's presentation.

Standards Statement

4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

- Present a topic using facts and relevant details.

- Speak at an appropriate pace.

Standards Statement

5. Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.

- Make audio recordings with fluid reading at an appropriate pace.

Standards Statement

6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

- Speak in complete sentences.

Language

Standards Statement

1. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.
 - a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
 - b. Form and use regular and irregular plural nouns.
 - c. Use abstract nouns (e.g., *childhood*).
 - d. Form and use regular and irregular verbs.
 - e. Form and use the simple (e.g., *I walked*; *I walk*; *I will walk*) verb tenses.
 - f. Ensure subject-verb and pronoun-antecedent agreement.
 - g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
 - h. Use coordinating and subordinating conjunctions.
 - i. Produce simple, compound, and complex sentences.

Third Grade

Language – Cont.

Define nouns, pronouns, verbs, adjectives, and adverbs.

Define and use abstract nouns.

Explain the difference between regular and irregular verbs.

Use simple verb tenses.

Explain subject-verb agreement.

Identify and use correctly comparative and superlative adjectives/adverbs.

Identify and write simple sentences.

Use coordinating and subordinating conjunction.

Identify and write compound sentences.

Identify and write complex sentences.

Standards Statement

2. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.
- a. Capitalize appropriate words in titles.
 - b. Use commas in addresses.
 - c. Use commas and quotation marks in dialogue.
 - d. Form and use possessives.
 - e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
 - f. Use spelling patterns and generalizations (e.g., *word families, position-based spellings, syllable patterns, ending rules, meaningful word parts*) in writing words.
 - g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Know and correctly use the rules for capitalizing words in titles.

Know and correctly use the rules for commas in addresses.

Know and correctly use the rules for using quotation marks and commas.

Form and use possessives correctly.

Use spelling patterns to write words.

Use dictionaries to correctly spell words.

Standards Statement

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- a. Choose words and phrases for effect.
 - b. Recognize and observe differences between the conventions of spoken and written Standard English.

Third Grade

Language – Cont.

- Use words and phrases that add effect.
- Explain the difference between spoken and written language.
- Use Standard English rules when writing.

Standards Statement

4. Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content*, choosing flexibly from a range of strategies.
- a. Use sentence-level context as a clue to the meaning of a word or phrase.
 - b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*).
 - c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).
 - d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

- Use context clues to understand the meaning of a word.
- Know the meaning of common affixes.
- Break down a word to help determine its meaning.
- Look up of the meaning of words or phrases in a glossary or dictionary in print or on-line.

Standards Statement

5. Demonstrate understanding of figurative language, word relationships and nuances in word meanings.
- a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*).
 - b. Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
 - c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).

- Explain the difference between literal and nonliteral meanings.
- Show how real life connections can help me understand words.
- Choose the best word from a group of words that have similar meanings.

Standards Statement

6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).

- Use grade appropriate words and phrases including those that signal spatial and temporal relationships.

Third Grade

Earth's Resources (ESS)

Content Statement

1. Earth's nonliving resources have specific properties.

- Identify rock, soil, air and water as examples of non-living resources.
- Sort rocks based on characteristics such as grain-size (texture), color and patterns.
- Recall that air and water are present in rocks and soil and play an important role in there formation.
- Test rocks and soil to determine that ability of water to pass through them, composition, and moisture level of soil.
- Use appropriate tools to test rock color, size, shape of the particles or grains, and texture.
- Use the characteristics of rocks (texture, composition or color) to determine the environment in which it formed.
- Use technology to analyze and compare test results, share rock samples, and share documentation of findings.

Content Statement

2. Earth's resources can be used for energy.

- Investigate the differences between renewable (replenished within a short amount of time by natural processes) and nonrenewable (a finite energy source that cannot be replenished in a short amount of time) resources.
- Provide examples of both renewable (wind, water, solar energy, etc.) and nonrenewable resources (coal, oil, etc.).
- Describe heat, electrical energy, light, sound and magnetic energy as renewable or nonrenewable energies.
- Recognize specific energy sources in Ohio (e.g., fossil fuels).
- Identify new energy technologies and the development of renewable energy sources within Ohio.
- Investigate the positives and negatives of the use of different renewable and nonrenewable resources (cost, method of collection, materials used, etc.).
- Compare Ohio's energy sources with other states.

Content Statement

3. Some of Earth's resources are limited.

- Use scientific data to evaluate and compare different methods of conservation (e.g., effectiveness of different kinds of recycling such as paper vs. metal).

Third Grade

Earth's Resources (ESS) – Cont.

- Describe ways to help conserve Earth's resources (reduce use, decrease waste and/or pollution, recycle, reuse resources).
- Investigate the positive and negative effects of recycling different types of materials (e.g., methods, effectiveness, recycling rates, etc.).
- Describe the different ways of earth's resources and how they are used.

Behavior, Growth and Changes (LS)

Content Statement

4. Offspring resemble their parents and each other.

- Compare the physical appearance of an adult organism with its offspring.
- Understand that traits can be passed down from parents to their offspring.
- Study the life cycle of different organisms.
- Observe organisms doing activities they have learned from their parents (e.g., hunting).
- Observe organisms doing activities that are in response to the environment around them (e.g., plant stems bending toward the light).
- Use books and/or technology (webcam) to study organisms' traits and behaviors in their natural and human made environments.
- Describe examples of differences among similar organisms that are part of a group.

Content Statement

5. Individuals of the same kind differ in their traits and sometimes the differences give individuals an advantage in surviving and reproducing.

- Name various physical features of plants and animals that are associated with the environment in which they live (e.g., coloration, location of eyes, type of feet, etc.).
- Observe various structures and behaviors of organisms that serve different functions (e.g., plants have leaves, stems, and roots that each serves a different function; animals have wings, feathers, and beaks that each serves different functions).
- Study variations in the traits of organisms that have been passed down to determine whether the trait helps increase, reduce, or has no effect on the ability of the organism to survive and reproduce in different environmental conditions (e.g., color, size, weight, etc.).
- Study plants (e.g., radishes, beans) and animals (e.g., insects – butterflies, moths, beetles, brine shrimp) to learn the features which helped them survive and reproduce and are passed on to future generations.

Third Grade

Behavior, Growth and Changes (LS) – Cont.

Content Statement

6. Plants and animals have life cycles that are part of their adaptations for survival in their natural environments.

- Sequence the typical stages of a life cycle (birth, growth, development, adulthood, reproduction, death).
- Recognize that a life cycle can be different for different organisms.
- Recognize that a life cycle can be interrupted at any stage.
- Observe (in the classroom or virtually) the complete life cycle of an organism.
- Use appropriate tools to question, explore, and investigate the appearances of living things (e.g., hand lens, magnifying lenses, metric rulers and scales).
- Explain what conditions may be needed for reproduction of different organisms (e.g., temperature, availability of food/water, season, etc.).

Matter and Forms of Energy (PS)

Content Statement

7. All objects and substances in the natural world are composed of matter.

- Name observable differences between the 3 states of matter.
- Distinguish between weight and volume.
- Represent the differences between weight and volume in words and visual models.
- Recognize that matter is anything that has mass and takes up space and that solids, liquids, and gases are made of matter.
- Measure and record the volume of various liquids with a beaker or graduated cylinder using metric units.
- Measure and record the weight of various objects using a scale.
- Recognize that weight is how strongly the Earth's gravity pulls the object toward Earth.
- Recognize that for any given location, the more matter there is in an object, the greater the weight.
- Experiment with different methods of measuring weight and liquid volume.
- Recognize that matter continues to exist, even when broken into pieces too tiny to be visible.

Third Grade

Matter and Forms of Energy (PS) – Cont.

Content Statement

8. Matter exists in different states, each of which has different properties.

- Differentiate between the different properties of the different states of matter:
 - Understand that liquids and solids do not compress into a smaller volume as easily as do gases.
 - Recognize that liquids and gases flow easily, but solids do not.
 - Recognize that solids retain their shapes and volume (unless a force is applied).
 - Understand that liquids assume the shape of the container that it occupies (retaining its volume).
 - Recognize that gases assume the shape and volume of its container.
 - Investigate the manner in which heating and cooling may cause changes to solids, liquids, and gases.
 - Conduct an experiment demonstrating phase changes with substances other than water.

Content Statement

9. Heat, electrical energy, light, sound and magnetic energy are forms of energy.

- Recognize that energy is the ability to cause motion or create change.
- Identify different forms of energy:
 - Falling rock causing a crater to form on the ground,
 - Heating water causing water to change into a gas,
 - Light energy from the sun contributing to plant growth,
 - Electrically charged objects causing movement in uncharged objects or other electronically charged objects,
 - Sound from a drum causing rice sitting on the drum to vibrate,
 - Electricity causing the blades of a fan to move and
 - Magnets causing other magnets and some metal objects to move.
 - Investigate (3-D or virtual) the relationship between different forms of energy and motion.

Third Grade

History

Content Statement & Elaborations

1. Events in local history can be shown on timelines organized by years, decades and centuries.

Put events in order on a timeline that is divided into years, decades, and centuries.

Content Statement & Elaborations

2. Primary sources, such as artifacts, maps and photographs, can be used to show change over time.

Use maps, artifacts, and pictures to show how a community has changed.

Content Statement & Elaborations

3. Local communities change over time.

Research information about a characteristic of a local community that has changed over time.

Analyze and organize information about a characteristic of a local community that has changed over time.

Present information about a characteristic of a local community that has changed over time.

Geography

Content Statement & Elaborations

4. Physical and political maps have distinctive characteristics and purposes. Places can be located on a map by using the title, key, alphanumeric grid and cardinal directions.

Describe a physical and political map and tell why they are used.

Use the title and key to help locate places in a community.

Use coordinates and directions to locate places in a community.

Content Statement & Elaborations

5. Daily life is influenced by the agriculture, industry and natural resources in different communities.

Explain how agriculture, industry, and natural resources has affected life in different communities.

Content Statement & Elaborations

6. Evidence of human modification of the environment can be observed in the local community.

Give examples of how humans have changed the environment in a community.

Third Grade

Geography – Cont.

Content Statement & Elaborations

7. Systems of transportation and communication move people, products and ideas from place to place.

Describe types of transportation that can move things from place to place.

Describe types of communication used to move ideas from place to place.

Content Statement & Elaborations

8. Communities may include diverse cultural groups.

Compare cultures and practices in different groups of a community.

Government

Content Statement & Elaborations

9. Members of local communities have social and political responsibilities.

Explain the social responsibilities of people in a community.

Explain the political responsibilities of people in a community.

Content Statement & Elaborations

10. Individuals make the community a better place by solving problems in a way that promotes the common good.

Explain ways people help solve problems to make the community a better place for everyone

Content Statement & Elaborations

11. Laws are rules which apply to all people in a community and describe ways people are expected to behave. Laws promote order and security, provide public services and protect the rights of individuals in the local community.

Explain how laws affect people in a community.

Explain why laws are good.

Content Statement & Elaborations

12. Governments have authority to make and enforce laws.

Explain why governments are allowed to make and enforce laws.

Content Statement & Elaborations

13. The structure of local governments may differ from one community to another.

Explain the organization of the local government.

Third Grade

Economics

Content Statement & Elaborations

14. Line graphs are used to show changes in data over time.

- Make and explain a line graph correctly.

Content Statement & Elaborations

15. Both positive and negative incentives affect people's choices and behaviors.

- Give examples of incentives that affects people's choices and behaviors.

Content Statement & Elaborations

16. Individuals must make decisions because of the scarcity of resources. Making a decision involves an opportunity cost, the value of the next best alternative given up when an economic choice is made.

- Describe the opportunity cost of a decision.

Content Statement & Elaborations

17. A consumer is a person whose wants are satisfied by using goods and services. A producer makes goods and/or provides services.

- Identify consumers and producers in the local community.

Content Statement & Elaborations

18. A market is where buyers and sellers exchange goods and services.

- Describe markets in the local community.

Content Statement & Elaborations

19. Making decisions involves weighing costs and benefits.

- Evaluate the good things and bad things when making a decision.

Content Statement & Elaborations

20. A budget is a plan to help people make personal economic decisions for the present and future and to become more financially responsible.

- Explain how a budget can help make good decisions.

- Tell the meaning of budget.

Third Grade

Operations & Algebraic Thinking

Cluster

1. Represent and solve problems involving multiplication and division.

- Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5×7 .*
- Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.*
- Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays (rows & columns), and measurement quantities
- Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$.*

Cluster

2. Understand properties of multiplication and the relationship between multiplication and division.

- Apply properties of operations as strategies to multiply and divide. *Examples:*
 - If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (*Commutative property of multiplication.*)
 - $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (*Associative property of multiplication.*)
 - Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (*Distributive property.*)
- Understand division as an unknown-factor problem. *For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.*

Cluster

3. Multiply and divide within 100.

- Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Third Grade

Operations & Algebraic Thinking

Cluster

- 4. Solve problems involving the four operations, and identify and explain patterns in arithmetic.
- Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends (numbers being added together).*

Number & Operations in Base Ten

Cluster

- 5. Use place value understanding and properties of operations to perform multi-digit arithmetic.
- Use place value understanding to round whole numbers to the nearest 10 or 100.
- Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
- Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

Number & Operations - Fractions

Cluster

- 6. Develop understanding of fractions as numbers.
- Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts
Understand a fraction a/b as the quantity formed by a parts of size $1/b$.
- Understand a fraction as a number on the number line; represent fractions on a number line diagram.
 - a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.
 - b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

Third Grade

Number & Operations - Fractions

- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
 - a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
 - b. Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$.
 - Explain why the fractions are equivalent, e.g., by using a visual fraction model.
 - c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.*
 - d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

Measurement & Data

Cluster

7. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

- Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
- Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Cluster

8. Represent and interpret data.

- Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent pets.*
- Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

Third Grade

Measurement & Data – Cont.

Cluster

9. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

- Recognize area as an attribute of plane figures and understand concepts of area measurement.
 - a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
 - b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

- Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

- Relate area to the operations of multiplication and addition.
 - a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
 - b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
 - c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
 - d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Cluster

10. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

- Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths finding an unknown side length given the perimeter rectangles with the same perimeter and different areas or with the same area and different perimeters.

Geometry

Cluster

11. Reason with shapes and their attributes.

- Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

Third Grade

Geometry – Cont.



Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.*