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## Purpose

The Assessment Guide for LEAP Connect is designed to assist Louisiana educators in understanding the LEAP Connect assessments in English language arts (ELA), mathematics, and science for grades 6-8.

## Introduction

Louisiana is building an educational system that ensures all students are ready for the next level of study by building knowledge of the world, accessing meaningful texts, expressing ideas, and solving complex problems. Through this, Louisiana is creating an equitable system for students with significant cognitive disabilities. Over the past few years, much progress has been made to deliver on this belief including:

- the [Louisiana Connectors \(LCs\) for Students with Significant Cognitive Disabilities](#) in English language arts (ELA), mathematics, and science that establish high expectations for students with significant cognitive disabilities, with instructional resources for educators;
- alternate assessments (LEAP Connect) in ELA, mathematics, and science aligned to the LCs to measure student progress; and
- an established [graduation pathway](#) to a high school diploma for students assessed on the alternate assessments.

Federal law requires states to administer annual assessments to all students, including students with significant cognitive disabilities, to measure progress towards challenging academic content standards. The LEAP 2025 assessments measure student proficiency in the content and skills detailed by the [Louisiana Student Standards \(LSS\)](#), and the LEAP Connect assessments measure student proficiency in the content and skills detailed by the [Louisiana Connectors \(LCs\) for Students with Significant Cognitive Disabilities](#). The LCs represent the “big ideas” of the content and skills found in the LSS. The LEAP Connect format allows students to participate in academic assessments that are sensitive to measuring progress in their learning (see R.S.17:24.4(F)(3) and R.S.17:183.1-17:183.3).

## Participation Requirements

To be eligible to participate in the LEAP Connect assessments, an IEP team must verify that the student has a disability which significantly impacts cognitive functioning and meets the criteria outlined in Bulletin 1530 §505. Additional information can be found in the “Alternate Assessment” section of the [Students with Significant Cognitive Disabilities](#) Library. Eligible students will take the LEAP Connect assessments for ELA and mathematics each year in grades 6-8 and science in grade 8, as required by Sections 1111(b)(1)(E) and 8401 of the Elementary and Secondary Education Act of 1965.

## Assessment Design

### Standards, Connectors, and Complexity Levels

The LCs for ELA, mathematics, and science for kindergarten through high school focus on the “big ideas” found in the LSS for ELA, mathematics, and science. The LCs provide developmentally appropriate and challenging content to guide curriculum and assessment development for students with significant cognitive disabilities. The LEAP Connect assessments align to the ELA, mathematics, and science LCs, which identify the:

- most salient grade-level academic content found in the LSS for ELA, mathematics, and science; and
- core content knowledge and skills needed at each grade to provide success at the next.

Instructional resources developed for the LCs include Essential Elements Cards, Science Component Cards, Trainings, and the Prioritized Connectors Guide each briefly described in the [Resources](#) section of this document.

The assessments include items with multiple levels of complexity and varying degrees of scaffolds and supports to provide opportunities for students to show what they know and can do. The LEAP Connect assessment items each represent one of four levels of complexity (Tiers 1-4), designed to follow instructional practices. Tier 1 and Tier 2 questions reflect the higher level of support needed when students begin to learn a new skill or acquire new knowledge. Tier 3 and Tier 4 questions reflect the lower level of support needed as students learn and develop mastery of that skill or knowledge (see Table 1).

Table 1. LEAP Connect Complexity Levels

Content	Tier 1	Tier 2	Tier 3	Tier 4
<b>English Language Arts</b>	<ul style="list-style-type: none"> <li>short text with repeated ideas</li> <li>simple vocabulary words</li> <li>provides a specific “listen for” statement related to the item</li> </ul>	<ul style="list-style-type: none"> <li>text with straightforward ideas</li> <li>provides a brief description of the item topic and simple definitions of terms</li> <li>provides a “listen for” statement related to the assessed skill</li> </ul>	<ul style="list-style-type: none"> <li>text with clear ideas</li> <li>provides some detail about the item topic and definitions of terms</li> <li>provides statement reminding students what the item is about</li> </ul>	<ul style="list-style-type: none"> <li>text with detailed and implied ideas</li> <li>provides statement reminding students what the item is about</li> </ul>
<b>Math</b>	<ul style="list-style-type: none"> <li>supports use of hands-on concrete materials</li> </ul>	<ul style="list-style-type: none"> <li>successive model that guides one step at a time</li> <li>simplified language and/or visual representations</li> <li>few data points</li> <li>increase magnitude of numbers</li> </ul>	<ul style="list-style-type: none"> <li>model that shows solution to a similar problem</li> <li>simplified language</li> <li>additional number of data points</li> <li>further increase in magnitude of numbers</li> </ul>	<ul style="list-style-type: none"> <li>statement reminding student what the item is about</li> </ul>
<b>Science</b>	<ul style="list-style-type: none"> <li>statement reminding students what the item is about</li> <li>simplified language and/or visual representations</li> <li>short answer options often supported with graphics</li> </ul>	<ul style="list-style-type: none"> <li>statement reminding students what the item is about</li> <li>simplified language and/or visual representations (e.g., line drawings)</li> <li>provides definitions of scientific terms</li> <li>distinct answer options may contain graphics support in answer options</li> </ul>	<ul style="list-style-type: none"> <li>statement reminding students what the item is about</li> <li>limited use of line drawings</li> <li>may include charts, tables, maps, graphs, or other visual representations</li> <li>may include models</li> <li>do not contain graphics support unless necessary</li> </ul>	<ul style="list-style-type: none"> <li>statement reminding students what the item is about</li> <li>may include charts, tables, maps, graphs, or other visual representations</li> <li>may require inference or prediction</li> <li>distractors may include misunderstandings of the concept or skill</li> </ul>

## Description of Item Types

The LEAP Connect assessments include several types of items.

- Multiple-choice (MC)** items are questions in which the student selects one answer from two (Tier 1) or three (Tiers 2-4) options.
  - Multiple-part ELA Writing items are a group of MC questions that the student must respond to in sequential order; often there are directions indicating that a student cannot return to the previous item. The student earns points for the group as a whole, not for each item in the group. Each item is scored for accuracy and then a group score of up to two points is applied based on the number of correct items in the group. Partial credit of one point is available.
  - Multiple-part ELA Reading Set and Science Set items are a group of MC questions that the student must respond to in sequential order; often there are directions indicating that a student cannot return to the previous item. The student earns one point for each item within the set. These are not scored as groups.
- Constructed response (CR)** items differ in design and purpose according to the content or skill being assessed. The test administrator is required to administer these items directly to the student.

- In ELA, the student will produce a response to a writing prompt. The ELA writing CR is scored by professionally trained scorers using a 3-dimensional rubric. The ELA Writing CR rubrics are found in [Appendix B](#).
- In math and science, the student will complete tasks. The test administrator will score the student’s responses according to the provided rubrics and record the student’s scores in the online test platform.

## Reporting

Student performance on the LEAP Connect assessments is reported by achievement level and overall score.

[Achievement Level Descriptors \(ALDs\)](#) are also included in the student-level reports. The ALDs describe the knowledge and skills students generally demonstrate at each level. The [LEAP Connect Interpretive Guide](#) and the [Parent Guide to the LEAP Connect Student Reports](#) describe the assessments so that school systems, school administrators, teachers, and parents will be able to use the results effectively.

## LEAP Connect Assessment Design English Language Arts (ELA)

The LEAP Connect ELA assessments measure reading comprehension of grade-appropriate literary and informational texts, vocabulary, and writing. Reading items measure the student’s reading comprehension, decoding skills, and vocabulary understanding, with both literary and informational texts in grade-appropriate contexts. The LCs at each grade require evaluation of comprehension across two passages. These skills are measured using “paired passage sets.” All paired passages are informational texts.

Writing items assess the student’s writing skills development. Grades 6-8 focus on narrative composition in Session 3 and explanatory composition in Sessions 3 and 4.

The LEAP Connect ELA assessments have four sessions – two reading, two writing.

*Table 2. LEAP Connect Reading and Writing Sessions*

Grade	Reading Sessions			Writing Sessions			
	Session Number	Passage Sets	Total MC Items	Session Number	Total MC Items	Writing Sets*	Total CR Items**
Grade 6	Session 1	3	18	Session 3	4	1 set of 5	0
	Session 2	2	12	Session 4	0	0	1
Grade 7	Session 1	3	18	Session 3	4	1 set of 6	0
	Session 2	2	12	Session 4	0	0	1
Grade 8	Session 1	3	18	Session 3	4	1 set of 6	0
	Session 2	2	12	Session 4	0	0	1

\*The student will earn a score of 2 points for the set if 3 or more of the items are answered correctly. Partial credit of 1 point is earned if at least 1 or 2 of the items are answered correctly.

\*\*The student constructs a story or an essay worth 9 points, 3 points for each dimension of the rubric.

A field-test passage set with 6 MC items is embedded in one of the reading sessions for each grade. The student’s responses to the field-test passage set questions are not part of the student’s test score. Information from the field-test passage set may be used by the LDOE to inform future test development.

*Table 3. Percent Representation Per ELA Domain*

Domain	Grades 6-8
Reading Literature	26%
Reading Informational	26%
Reading Vocabulary	10%
Writing	38%

## Math

The LEAP Connect mathematics assessment in the middle grades focuses on problem solving and reasoning. The test has two sessions. Table 4 shows the number of items by session and type for each grade.

Table 4. LEAP Connect Mathematics Design

Session	Items	Grades 6-7	Grade 8
1	MC	20	20
2	MC	15	13
	CR	0	2
	Field test	5	5

Table 5. Percent Representation Per Mathematics Domain

Domain	Grade 6	Grade 7	Grade 8
Geometry	9%	23%	31%
Ratio and Proportion	29%	40%	N/A
Expressions and Equations	20%	9%	17%
The Number System	34%	17%	11%
Statistics and Probability	9%	11%	20%
Functions	N/A	N/A	20%

## Test Administration

The LEAP Connect ELA, mathematics, and science assessments are administered as computer-based tests (CBT) in a one-to-one setting. The test administrator will use the online test platform, the Test Administrator Manual, Directions for Test Administration, and reference materials for grade-specific item presentation and response collection to prepare for and administer the test. All passages, items, and response options are designed to be read to the students by the testing platform or the test administrator. Tests are untimed and allow for breaks between questions or sessions. The test administrator may pause the test as needed to best accommodate the student.

The LEAP Connect testing window is February 19 - March 22, 2024.

The student or the test administrator will record the student's answers to all questions into the online testing system. Answering the ELA writing CR requires entering text into the response boxes; all other items require the selection of an option with the pointer tool.

The LEAP Connect assessments include accessibility features for all students who take the test.

- Students should respond to MC and CR items based on their preferred mode of communication (e.g., eye gaze, assistive technology, point to a picture, etc.).

## Science

The LEAP Connect science assessment in grade 8 focuses on Earth's systems and rock patterns in Earth and space science; genetics and evolution in life science; and comparing materials and designs in physical science. The test has two sessions.

- **Session 1** has 15 MC items and 3 field-test items.
- **Session 2** has 13 MC items, 2 CR items, and 3 field-test items.









The student's responses to the field-test items are not part of the student's test score. Information from the field-test items may be used by the LDOE to inform future test development.

Table 6. Percent Representation Per Science Domain

Domain	Percent Representation
Earth and Space Science	30%
Life Science	40%
Physical Science	30%

- Nearly all the mathematics and science items on the LEAP Connect assessments contain visual stimuli to assist students with determining an answer.
- The assessment items indicate when students may use calculators. Any student with an IEP accommodation for calculator use may use a calculator for every assessment item. While an online calculator is provided, students may use the handheld calculator they typically use during instruction on the mathematics test.

Online tools provide additional accessibility for all students. The tools allow a student to select answer choices, “mark” items, eliminate answer options, take notes, enlarge the item, guide the reading of a text or an item line by line, and use a calculator. A help tool is also featured to assist students as they use the online system.

- |                    |   |                    |   |              |   |
|--------------------|---|--------------------|---|--------------|---|
| • Pointer tool     |  | • Sticky Note tool |  | • Calculator |  |
| • Highlighter tool |  | • Magnifying tool  |  | • Help Tool  |  |
| • Cross-Off tool   |  | • Line Guide       |  |              |   |

**All students who will enter their own responses and test administrators who will enter responses should work through the Online Tools Training (OTT) to practice using the online tools so they are well prepared to navigate the online testing system.** Directions for Administration and Reference Materials for the OTT are available in the DRC INSIGHT Portal (eDirect) and in the LDOE [Assessment Guidance](#) library.

### Student Response Check

Administering the Student Response Check (SRC) provides an opportunity for a test administrator who is not a student’s classroom teacher to observe the student’s preferred mode of response and practice entering the response into the system. The student need not respond correctly to any of the items; rather, the purpose is to determine whether the student can indicate a response using their preferred mode of communication and the test administrator can clearly identify the student’s response to each item. If the student’s response is not observable by the test administrator, the test administrator cannot enter the student’s response into DRC INSIGHT. Teachers and test administrators may access the SRC through INSIGHT or through the LEAP Connect Online Tools Training by selecting ‘Student Response Check.’

### Vocabulary List

[Appendix C](#) includes a list of vocabulary that students may encounter while taking the LEAP Connect assessments. This vocabulary list may be used for ASL translation, object replacement, tactile graphics, word boards or word banks, and AT/AAC devices. It should be reviewed prior to testing and incorporated into instruction.

### Permitted Testing Materials

Each test comes with reference materials that contain visual stimuli, formulas, a list of manipulatives, and the answer options for each test question. Some of the reference materials will need to be copied and cut out for student use. Some of the materials will be used as stimuli for CR items or to assist with answering MC items. The Directions for Test Administration (DTA) contains scripted instructions for the test administrator to provide specific materials to the student. The answer options may be copied and used with eye gaze boards as needed. All reference materials must be securely destroyed after testing has completed, including used scratch paper. Additional graphic files are available upon request through the District Test Coordinators (DTCs.)

## Resources

### Assessment Guidance Library

- [Prioritized Connectors for LEAP Connect Assessments](#): prioritized connectors for assessment with instructional planning resources
- Sample CRs: items, directions, and materials
  - ELA: [Directions](#), [Reference Materials](#), [Webinar](#)
  - Math: [Directions](#), [Reference Materials](#)
- [Assessment Development Educator Review Committees](#): describes development process and includes information about participation
- [OTT Directions for Administration](#) and [OTT Reference Materials](#): provides directions and materials for the OTTs

### Practice Test Library

- LEAP Connect Practice Tests
  - ELA grade 8: [Directions](#), [Reference Materials](#), [Key](#), [Graphics](#)
  - Math grade 6: [Directions](#), [Reference Materials](#), [Key](#), [Graphics](#)
  - Math grade 7: [Directions](#), [Reference Materials](#), [Key](#), [Graphics](#)
  - Math grade 8: [Directions](#), [Reference Materials](#), [Key](#), [Graphics](#)
  - Science grade 8: [Directions](#), [Reference Materials](#), [Key](#), [Graphics](#)
- [LEAP Connect Practice Test Quick Start Guide](#): provides information regarding administration and scoring of the online practice tests
- [Procedures for Administering the Practice Tests to Students who are Visually Impaired, Deaf, or Deaf-Blind](#): provides guidance about administration for visually impaired, deaf, or deaf-blind

### Assessment Library

- [Achievement Level Descriptors](#): knowledge, skills, and processes students may be able to demonstrate at each level of achievement

[DRC INSIGHT Portal \(eDIRECT\)](#): access to tutorials, manuals, and guides

### INSIGHT™

- Online Tools Training: allows students to become familiar with the online tools; also available [here](#) using the Google Chrome browser
- LEAP Connect Practice Tests for ELA, Math, and Science: helps prepare students and teachers for the LEAP Connect assessments

### Students with Significant Cognitive Disabilities Library

- [K-12 Louisiana Connectors for Students with Significant Disabilities](#): describes academic content to be taught at each grade
- [ELA Guidebook Companion Resources](#): adapted ELA resources
- [Essential Elements Cards](#): guidance for teaching ELA and math
- [Science Component Cards](#): guidance for teaching science
- Alternate Assessment [Information](#), [Policy](#), [Guidance](#), and [FAQ](#)

[assessment@la.gov](mailto:assessment@la.gov): email regarding statewide assessments

[specialeducation@la.gov](mailto:specialeducation@la.gov): email regarding policy and services

[diverselearnersupport@la.gov](mailto:diverselearnersupport@la.gov): email regarding academic supports

## Appendix A: Sample Test Items

### Reading Sample Test Items

#### Grade 6

**Content:** Informational Texts    **Standard:** LC.RI.6.8b  
**Complexity:** Tier 2                **Key:** C

We are going to read an informational text about a man named Mark Twain. He lived a long time ago and wrote books. After we read, you will be asked a question about an argument the author makes.

#### The Life and Works of Mark Twain



Mark Twain was an American writer. He was born in 1835. He wrote many books, but his best known books are The Adventures of Tom Sawyer and Adventures of Huckleberry Finn. Both books are set in Missouri. This is where Twain lived.

Twain first began by writing articles and drawing sketches for his brother's local newspaper. He became well known after he wrote a humorous story. Twain lived his life on the go. He traveled throughout the country and overseas. He gained the attention of presidents and celebrities.



Twain was fascinated by science and technology. He actually created several inventions. His love of science was reflected in his book, A Confederate Yankee in King Arthur's Court. In this book, one of the characters is a time traveler. This type of story was one of the first of its kind.

Mark Twain has influenced many people. He is seen as a great American author.

Remember, an author uses an argument, based on facts, to make the reader believe something.

What argument did the author make about Mark Twain?



a) Mark Twain was a famous scientist.



b) Mark Twain lived in Missouri.



c) Mark Twain was a talented author.

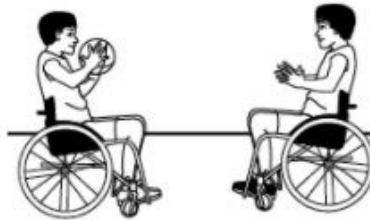


Grade 7

**Content:** Literature Text  
**Complexity:** Tier 2

**Standard:** LC.RL.7.4a  
**Key:** C

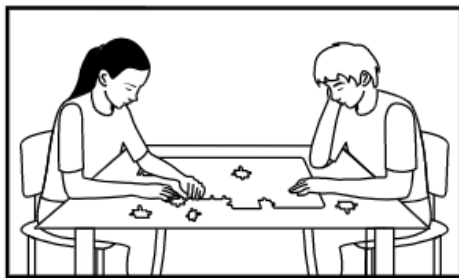
We read a story about a boy named Dylan who writes a journal about his friends. We are going to read part of the story again. Listen for clues that tell you what the word **exaggerating** means.



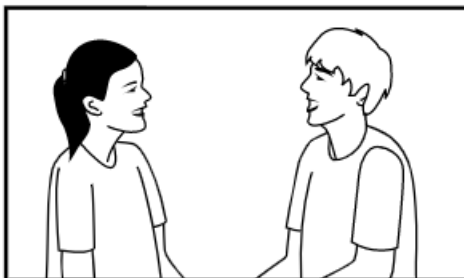
**Tuesday**

Playing basketball was exhausting. I am tired, but I don't mind. I scored three times! Mason and Carlos scored points too. Carlos said he scored 100 points. But I knew he was **exaggerating**. Actually, Carlos only scored 10 points.

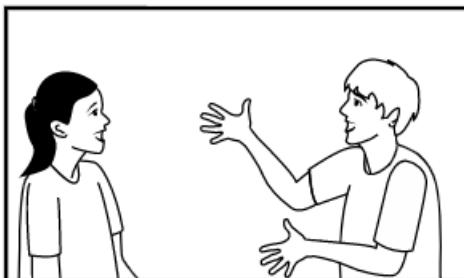
What does the word **exaggerating** mean in this sentence?



a) working hard at a task



b) laughing with friends



c) saying more than the truth

Grade 8

<b>Content:</b> Informational Text	<b>Standard:</b> LC.L.8.6a
<b>Complexity:</b> Tier 3	<b>Key:</b> B

We are going to read an informational text about seabirds. After we read, you will be asked a question about the conclusion that a seabird is a good hunter.

**Fishing with Wings**



**Seabirds**

Seabirds fish for their dinner in the salty waters of the ocean. Seabirds are built to catch fish.

Some seabirds drop from the sky. They plunge into the water to catch their dinner. Some seabirds swim underwater. They dive deep down into the water to catch their dinner.

There are plenty of places for a seabird to fish. That's because more than 70% of Earth is covered by oceans. The shoreline of Louisiana is home to more than one kind of seabird. Two kinds of seabirds are the Brown Pelican and the Cormorant.

**From the Sky**



The Brown Pelican is a large bird. It has a long neck and a dark body. The pelican looks for prey while flying above the ocean. From high above, it can spy a fish swimming beneath the surface. The pelican plunges down with its large wings tucked in. The pelican points its long bill down and dives toward the fish.

The pelican scoops up its prey in a large pouch. The pouch helps the pelican catch the fish. It quickly swallows the fish. Then, the pelican looks for another tasty meal from high above the ocean.

**Under the Water**



The Cormorant is a large bird with a long tail. It can dive as deep as 150 feet into the ocean to find prey. The Cormorant has webbed feet that help it move quickly underwater. Its wings work like a rudder on a boat. Under the water, the Cormorant can turn using its wings.

The Cormorant uses its long, thin bill to catch fish or eels. Then, it rests near the edge of the water to get dry. The Cormorant spreads its wings to dry its feathers. Now it is time to fly and go fishing again!

**Skilled Hunters**

Seabirds use their wings and bills to find food from high above and in the depths of the ocean. Their **survival** depends on an ability to find and eat food.

All along the shoreline of Louisiana, these skilled hunters fish in the deep ocean waters.

A seabird is a good hunter.

Which sentence from the text tells that a seabird is a good hunter?

- a) "It quickly swallows the fish."
- b) "Then, it rests near the edge of the water to get dry."
- c) "From high above, it can spy a fish swimming beneath the surface."

Writing Sample Item

Grade 7

<b>Content:</b> Expository Writing	<b>Standard:</b> LC.W.7.4
<b>Complexity:</b> Tier 2	<b>Key:</b> Rubric

You are going to write an essay that is about the cause and effect of what might happen because someone is tired. Cause-and-effect means that one event, the cause makes the other event, the effect, happen. One example of cause and effect is when you eat fruits and vegetables every day it helps you to be strong and healthy. The cause is eating fruits and vegetables every day. The effect is that you get strong and healthy. In your essay, you will write about what might happen because someone is tired.

In this essay, I will write about the cause and effect of

Because someone is tired

This can be described

In conclusion,

*For Test Administrator use if annotations are necessary.*

Mathematics Sample Test Items

Grade 6

**Content:** Ratios and Proportional Relationships  
**Standard:** LC.6.RP.A.3  
**Complexity:** Tier 3 **Key:** C

This item is about solving a problem using a ratio.  
June learned 6 new vocabulary words for every chapter she read. This is a ratio of 6 to 1.

**6:1**

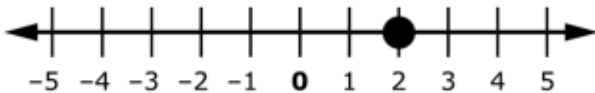
June learned 60 new vocabulary words.  
How many chapters did June have to read to learn 60 new vocabulary words?

- a) 3 chapters
- b) 6 chapters
- c) 10 chapters

**Content:** The Number System  
**Standard:** LC.6.NS.C.6d  
**Complexity:** Tier 2 **Key:** B

This item is about locating positive and negative numbers on a number line.

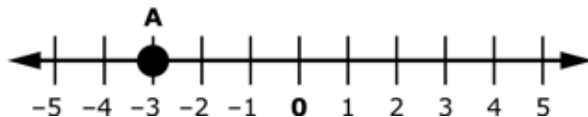
This is a number line.



The numbers to the right of 0 are positive numbers.  
The numbers to the left of 0 are negative numbers.  
The symbol in front of these numbers means they are negative.

This is a positive 2 on the number line.

This is another number line.



What is the location of Point A on the number line?

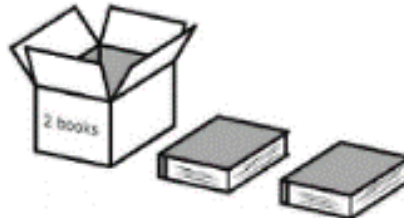
- a) -5
- b) -3
- c) 3

**Content:** Expressions & Equations  
**Standard:** LC.6.EE.B.7a  
**Complexity:** Tier 3 **Key:** C

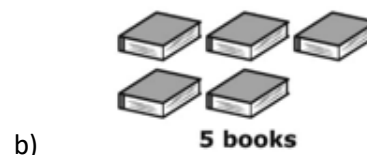
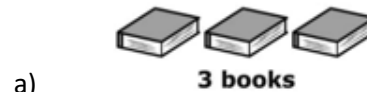
This item is about solving a problem using a ratio.  
The students in Ms. Victor's class collected books.  
There are 3 boxes.



Each box holds 2 books.



How many total books did the students use to fill the 3 boxes?

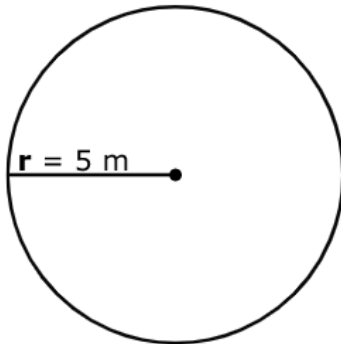


Grade 7

**Content:** Geometry  
**Complexity:** Tier 2

**Standard:** LC.7.G.B.4  
**Key:** C

This item is about finding the area of a circle.  
This is a circle.



This is the formula for finding the area of a circle.

$$\text{Area} = 3.14 \times r \times r$$

A letter can stand for a number in an equation.

The letter  $r$  in this equation stands for the radius. The radius of this circle is 5 meters.

Which equation shows how to find the area of the circle?

- a)  $\text{Area} = 3.14 \times 5 = 15.70 \text{ sq m}$
- b)  $\text{Area} = 3.14 + 5 + 5 = 13.14 \text{ sq m}$
- c)  $\text{Area} = 3.14 \times 5 \times 5 = 78.50 \text{ sq m}$

Grade 8

**Content:** The Number System    **Standard:** LC.8.NS.A.2  
**Complexity:** Tier 3                      **Key:** B

This item is about locating numbers on a number line.

This is  $\sqrt{59}$ . The value of  $\sqrt{59}$  is about 7.68.

Use the number 7.68 to find the approximate location of  $\sqrt{59}$  on the number line.



The approximate location of  $\sqrt{59}$  is between the numbers 7 and 8 on the number line.

This is  $\sqrt{40}$ . The value of  $\sqrt{40}$  is about 6.32.

This is another number line.



Each letter stands for a point on the number line.

Use the number 6.32 to find the approximate location of  $\sqrt{40}$  on the number line.

Which point shows the approximate location of  $\sqrt{40}$  on the number line?

- a) point A
- b) point B
- c) point C

Science Sample Test Items

Grade 8

**Content:** Physical Science  
**Standard:** LC.8.MS.PS3.3a  
**Complexity:** Tier 3                      **Key:** C

This item is about natural resources and man-made resources.

Natural resources are found in nature and useful to people. Examples of natural resources are oil and wool.

Man-made resources are made by people.

Examples of man-made resources are paper and fabric. These are resources.



This is a chart.

Resources	
Natural Resources	Man-made Resources

The left side is labeled “Natural Resources”.

Place the resources that are found in nature onto this side of the chart.

The right side is labeled “Man-made Resources”.

Place the resources that are made by people onto this side of the chart.

**Rubric**

Score	Description
1	Student correctly sorts three out of three resources.
0	Student does not correctly sort three out of three resources.

**Content:** Physical Science  
**Standard:** LC.8.MS.PS1.3a  
**Complexity:** Tier 3                      **Key:** Rubric

This item is about thermal energy.

A student in a science class conducted a heat loss experiment using a glass beaker, an insulated thermos, and a foam cup.

- The same volume of water was placed into each container.
- The starting temperature of the water in each container was 83°C.
- After 30 minutes, the student took the temperature of the water in each container.

The temperatures are shown in the data table.

Heat Loss Results	
Container	Final Temperature (°C)
Glass beaker	24.7
Insulated thermos	81.9
Foam cup	53.0

Which container kept the temperature of the water the warmest?

- a) glass beaker
- b) insulated thermos
- c) foam cup

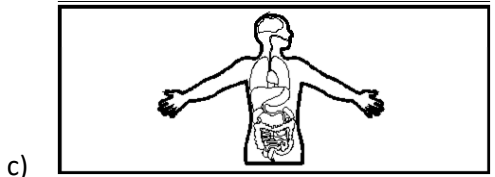
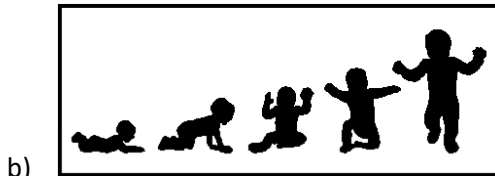
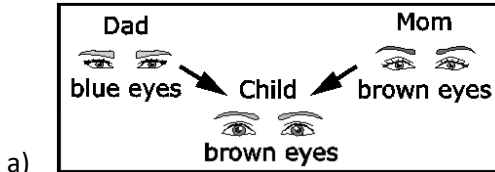
**Content:** Life Science    **Standard:** LC.8.MS.LS3.1a  
**Complexity:** Tier 2    **Key:** A

**Content:** Life Science  
**Standard:** LC.8.MS.LS4.3a  
**Complexity:** Tier 2    **Key:** Rubric

This item is about parents and offspring.

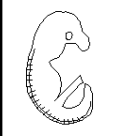
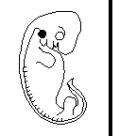

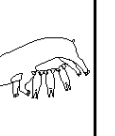
Traits are characteristics passed from parents to offspring.

Which shows how parents and offspring may have different traits?



This item is about how animals develop and grow. An embryo is the earliest stage of development of an unborn or unhatched animal.


**Stages of Pig Development**

			
Stage 1	Stage 2	Stage 3	Stage 4

For example, a pig starts life as an embryo, is born, and grows as a piglet. Other animals begin life with similar stages of embryo development.

This is a chart to show stages of a chicken's development.

**Stages of Chicken Development**

			
Stage 1	Stage 2	Stage 3	Stage 4

The first stage shows the Stage 1 embryo development of a chicken. It looks similar to the Stage 1 embryo development of the pig.

These are pictures to use to complete the chart of a chicken's development.



Complete the chart by placing the stages of chicken development in the correct order from Stage 2 to Stage 4.

**Rubric**

Score	Description
1	Student correctly places exactly 3 pictures of the chicken development stages on the chart in the correct order.
0	Student does not correctly place exactly 3 pictures of the chicken development stages on the chart in the correct order.

**Content:** Life Science  
**Standard:** LC.8.MS.PS1.6b  
**Complexity:** Tier 1

**Key:** B

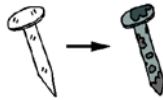
*This is a two-part item. Be sure the student responds to this item before presenting the second item of this two-part item.*

This item is about changes.

During a physical change, a material may change shape. For example, tearing a piece of paper is a physical change.



During a chemical change, a material may change into a different substance. For example, a new nail becoming rusty.



What type of change is burning wood?

- a) physical
- b) chemical

**Content:** Life Science  
**Standard:** LC.8.MS.PS1.6b  
**Complexity:** Tier 2

**Key:** Rubric

*This is the second item of a two-part item. Students may not return to the previous item.*

This item is about chemical reactions.

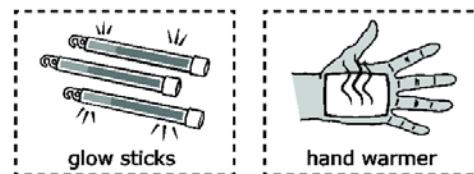
Some chemical reactions release heat or light.

This is a chart.

**Chemical Reactions**

Release Heat	Release Light

These are chemical reactions.



The left side of the chart is labeled "Release Heat." Place the chemical reaction that releases heat onto this side of the chart.

The right side of the chart is labeled "Release Light." Place the chemical reaction that releases light onto this side of the chart.

Rubric

Score	Description
1	Student correctly places the picture of the hand warmer under the "Release Heat" category and the picture of glow sticks under the "Release Light" category.
0	Student does not correctly place the picture of the hand warmer under the "Release Heat" category and the picture of glow sticks under the "Release Light" category.



**Content:** Earth and Space Science  
**Standard:** LC.8.MS.ESS1.4a  
**Complexity:** Tier 3                      **Key:** Rubric

This item is about Earth’s history.

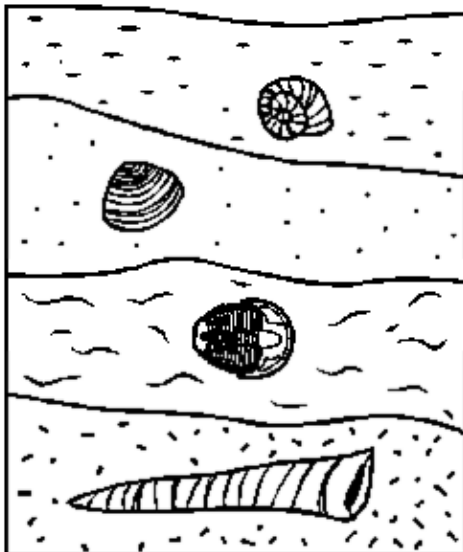
Fossils are the remains or traces of organisms from the ancient past.

This is an example of a fossilized fish found in a layer of rock.

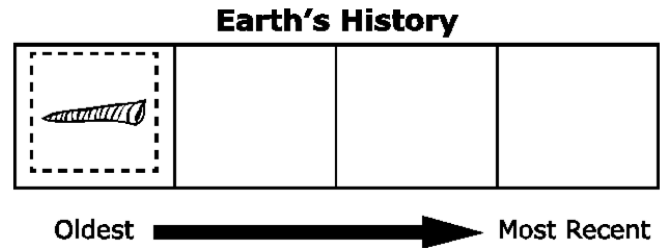


Rock layers are ordered with the oldest layers on the bottom, and the most recent layers on top.

This is a picture of four periods of Earth’s history.

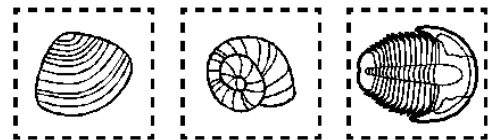


This is a chart.



The oldest fossil is shown on the left side of the chart.

These are pictures of fossils to use to complete the chart.



Complete the chart by place the pictures of fossils in the correct order from oldest to most recent on the chart.

Rubric

Score	Description
1	Student correctly places exactly 3 pictures of the fossils on the chart in the correct order.
0	Student does not correctly place exactly 3 pictures of the fossils on the chart in the correct order.

## Appendix B: Rubrics

Table 7. Writing Explanatory Rubric Grade 6

Rubric Elements	Full Evidence	Partial Evidence	Limited Evidence	No/Unrelated Evidence
<p><b>Organization</b></p> <p>The essay addresses a specified topic and is organized to describe two opposing conditions (e.g., compare/contrast).</p>	<p>The essay includes at a minimum:</p> <ul style="list-style-type: none"> <li>an introduction that states the essay is about two opposing conditions</li> <li>a body that includes:               <ul style="list-style-type: none"> <li>one activity for each of the two opposing conditions; and</li> <li>one activity common to both conditions</li> </ul> </li> <li>a conclusion that states two opposing conditions or summarizes the content</li> </ul>	<p>The essay includes at a minimum:</p> <ul style="list-style-type: none"> <li>an introduction that states one activity or topic</li> <li>a body that relates two conditions with activities</li> <li>a conclusion that states an activity or the topic</li> </ul>	<p>The essay includes at a minimum some evidence related to the specified topic (i.e., introduction, compare/contrast relationship, or conclusion).</p>	<p>There is no evidence of organization or the evidence is off topic.</p>
<p><b>Idea Development</b></p> <p>The essay develops a topic and includes relevant facts and details to promote meaning and create clarity.</p>	<p>The essay includes at a minimum three activities, each with relevant details (the same detail may be used for all activities if relevant to each)</p>	<p>The essay includes at a minimum one activity with a relevant detail</p>	<p>The essay includes at a minimum a detail that describes an activity.</p>	<p>There is no evidence of idea development or the evidence is off topic.</p>
<p><b>Conventions</b></p> <p>The students use standard English conventions (subject-verb agreement).</p>	<p>The essay includes more than one sentence and at a minimum:</p> <ul style="list-style-type: none"> <li>end punctuation for more than one thought unit</li> <li>one complete sentence with subject-verb agreement</li> </ul>	<p>The essay includes at a minimum:</p> <ul style="list-style-type: none"> <li>end punctuation for one thought unit</li> <li>one complete sentence with or without subject-verb agreement</li> </ul>	<p>The essay includes at a minimum one use of Standard English conventions.</p>	<p>There is no evidence of Standard English conventions.</p>

Table 8. Writing Explanatory Rubric Grade 7

Rubric Elements	Full Evidence	Partial Evidence	Limited Evidence	No/Unrelated Evidence
<b>Organization</b> The essay addresses a specified topic and is organized with an effect related directly to a cause (e.g., cause/effect).	The essay includes at a minimum: <ul style="list-style-type: none"> <li>an introduction that states the topic/cause</li> <li>a body that relates the effect to the provided cause</li> <li>a conclusion that states the essay is about a cause and its effect</li> </ul>	The essay includes at a minimum: <ul style="list-style-type: none"> <li>an introduction that states the topic/cause</li> <li>a body that includes an effect that may not relate to the provided cause</li> <li>a conclusion that states a cause of the effect</li> </ul>	The essay includes at a minimum some evidence related to the specified topic (i.e., introduction, cause/effect relationship, or conclusion).	There is no evidence of organization or the evidence is off topic.
<b>Idea Development</b> The essay develops a topic, includes details to promote meaning and create clarity.	The essay includes at a minimum one relevant detail to describe the effect	The essay includes at a minimum one effect with no relevant detail	The essay includes at a minimum one related idea to the effect.	There is no evidence of idea development or the evidence is off topic.
<b>Conventions</b> The student uses standard English conventions (subject-verb agreement).	The essay includes more than one sentence and at a minimum: <ul style="list-style-type: none"> <li>end punctuation for more than one thought unit</li> <li>one complete sentence with subject-verb agreement</li> </ul>	The essay includes at a minimum: <ul style="list-style-type: none"> <li>end punctuation for one thought unit</li> <li>one complete sentence with or without subject-verb agreement</li> </ul>	The essay includes at a minimum one use of Standard English conventions.	There is no evidence of Standard English conventions.

Table 9. Writing Explanatory Rubric Grade 8

Rubric Elements	Full Evidence	Partial Evidence	Limited Evidence	No/Unrelated Evidence
<p><b>Organization</b></p> <p>The essay addresses a specific topic and is organized with a solution related directly to the problem (e.g., problem/solution).</p>	<p>The essay includes at a minimum:</p> <ul style="list-style-type: none"> <li>an introduction that states both parts of the problem and parts of the solution</li> <li>a body that relates how the solution can be applied to the problem</li> <li>a conclusion that states the problem and the solution</li> </ul>	<p>The essay includes at a minimum:</p> <ul style="list-style-type: none"> <li>an introduction that states the problem</li> <li>one solution that may not relate to the problem</li> <li>a conclusion that states the problem or the solution</li> </ul>	<p>The essay includes at a minimum some evidence related to the specified topic (i.e., introduction, problem/solution relationship, or conclusion).</p>	<p>There is no evidence of organization or the evidence is off topic.</p>
<p><b>Idea Development</b></p> <p>The essay develops a topic, includes details to promote meaning and create clarity.</p>	<p>The essay includes at a minimum:</p> <ul style="list-style-type: none"> <li>a relevant detail to describe the problem</li> <li>a relevant detail to describe the solution</li> </ul>	<p>The essay includes at a minimum a relevant detail to describe the problem or the solution</p>	<p>The essay includes at a minimum a detail or word that describes the problem or the solution.</p>	<p>There is no evidence of idea development or the evidence is off topic.</p>
<p><b>Conventions</b></p> <p>The student uses standard English conventions (subject-verb agreement).</p>	<p>The essay includes more than one sentence and at a minimum:</p> <ul style="list-style-type: none"> <li>end punctuation for more than one thought unit</li> <li>one complete sentence with subject-verb agreement</li> </ul>	<p>The essay includes at a minimum:</p> <ul style="list-style-type: none"> <li>end punctuation for one thought unit</li> <li>one complete sentence with or without subject-verb agreement</li> </ul>	<p>The essay includes at a minimum one use of Standard English conventions.</p>	<p>There is no evidence of Standard English conventions.</p>

## Appendix C: Vocabulary Lists

Table 10. Middle Grade Vocabulary List

English Language Arts Grades 6-8				
author's claim	describe	inference	paragraph	revise
cause and effect	details	introduction	period	revision
character	edit	main idea	phrase	sentence
claim	essay	message	precise	summary
compare	events	opinion	problem/solution	text
conclusion	exclamation point	organize	punctuation	theme
contrast	form	outline	question mark	topic
Mathematics Grades 6-8				
addition	data table	grid	place value	slope
area	decrease	height	positive	solve
array	divided	increase	problem	surface area
bar graph	division	length	proportion	symbol
centimeters	equal	less than	proportional relationship	thermometer
Celsius	equation	model	rate	unit
compare	farther	multiplication	rectangle	value
comparison	figure	negative	relationship	volume
corresponding	formula	number	round	weight
cost	fraction	parallel	shape	x axis
data	graph	parallelogram	similar	y axis
Science Grade 8				
amphibian	diagram	heat	natural resource	sediment
asteroid	distribution	heat energy	nutrient	skull
beaker	durable	hoof/hooves	nylon	species
biome	embryo	hot plate	offspring	stage
Cenozoic	energy source	layer	organism	surface layer
Cenozoic era	energy transfer	limb	Paleozoic	synthetic resource/material
characteristic	environment	mane	Paleozoic era	thermal energy
chemical change	erosion	man-made resource	physical change	trait
chemical reaction	evidence	Mesozoic	population	transfer
developmental stage	fossil	Mesozoic era	reaction	variation
device	gene	mineral	reptile	volcanic