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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 high school.

### 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, mathematics, and science, 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>

Content	Tier 1	Tier 2	Tier 3	Tier 4
Science	<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 rubric is found in [Appendix B](#).
  - In 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 assessment measures 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. One of the LCs requires 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 composition skills development. High school focuses on explanatory composition in Session 3 and argumentative 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*

Reading Sessions			Writing Sessions			
Session Number	Passage Sets	Total MC Items	Session Number	Total MC Items	Writing Sets*	Total CR Items**
Session 1	3	19	Session 3	4	1 set of 6	0
Session 2	2	10	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	Percent
Reading Literature	18%
Reading Informational	34%
Reading Vocabulary	8%
Writing	40%

## Math

The LEAP Connect mathematics assessment in high school focuses on problem solving and reasoning. The test has two sessions. Table 4 shows the number of items by session and type.

*Table 4. LEAP Connect Mathematics Design*

Session	Items	Number
1	MC	17
	Field Test	3
2	MC	18
	Field test	3

*Table 5. Percent Representation Per Mathematics Domain*

Domain	Percent
Number and Quantity	14%
Algebra	49%
Geometry	11%
Statistics and Probability	26%

## Science

The LEAP Connect science assessment in high school focuses on life science content. The test has two sessions.

*Table 6. LEAP Connect Science Design*

Session	Items	Number
1	MC	14
	CR	1
	Field test	2
2	MC	13
	CR	2
	Field test	4

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 7. Percent Representation Per Science Domain*

Domain	Percent
Molecules to Organisms	40%
Ecosystems	20%
Heredity	20%
Biological Evolution	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.).
- 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 high school OTTs

### Practice Test Library

- LEAP Connect Practice Tests
  - ELA: [Directions](#), [Reference](#), [Key](#), [Graphics](#)
  - Math: [Directions](#), [Reference](#), [Key](#), [Graphics](#)
  - Science: [Directions](#), [Reference](#), [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 FAQs:
  - [AA Eligibility 1.C. Additional Documentation](#)
  - [Alternate Assessment Eligibility FAQ for IEP Teams](#)
  - LEAP Connect Criteria Flowchart: [Entering HS Cohort During 2020-2021 SY](#), [Entering HS Cohort on or Before 2019-2020 SY](#)
  - LEAP Connect IEP form: [HS Cohort 2019-2020](#), [HS Cohort 2020-2021](#)

[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 Item

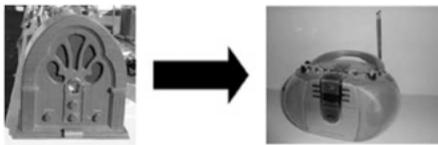
<b>Content:</b> Informational Texts	<b>Standard:</b> LC.RI.11-12.6a
<b>Complexity:</b> Tier 2	<b>Key:</b> C

We are going to read an informational text about the invention of the radio and television. After we read, you will be asked questions about the details that support a conclusion.



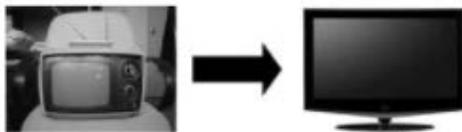
#### The Impact of Radio and Television

There are two important inventions in the 20<sup>th</sup> century, radio and television. These two inventions changed people's daily lives.



#### Radio

The first radio transmitted the human voice in 1900. The radio was originally invented to send messages. Americans used radios for the first time to listen to music, news, and entertainment programs. By the 1930s, more than half of American homes had a radio. For the first time, people could hear breaking news from around the world while in their homes.



#### Television

Television was even more popular than the radio. It was invented in 1926. It allowed people to watch moving pictures in their homes. At first, television shows were broadcast using black and white pictures. In 1953, television shows became available in color. By 1978, almost every family in America had at least one television in their home. Now people could see live images from around the world.

The invention of radio and television has had a great impact on our daily lives. Today, radios and televisions are widely used at home and in classrooms. Think how different your life would be without radios and televisions.

From reading the text you can conclude that radio changed people's daily lives.

Which detail supports that radio changed people's daily lives?



a) There were two important inventions in the 20<sup>th</sup> century.



b) Television was more popular than the radio.



c) Americans used the radio for the first time to listen to music.

Writing Sample Item

**Content:** Persuasive Writing      **Standard:** LC.W.11-12  
**Complexity:** Tier 2                      **Key:** Rubric

You are going to write a persuasive essay about why schools should have an Arts club. In a persuasive essay, you try to convince someone else to agree with you. First, I will read an example of a persuasive essay.

This is an example of a persuasive essay. The topic is planting trees. The author makes the claim that the city should plant more trees.

**Plant More Trees**

In this essay, I will convince you that the city should plant more trees. One reason is that trees are helpful.

It is important to have trees because they provide shade for people to stay cool. Also, trees provide oxygen that helps us breathe.

In conclusion, I hope you are convinced that the city should plant more trees. This is important because trees are helpful.

**Why School Should Have an Arts Club**

In this essay, I will convince you that

One reason

It is important to

Also,

Mathematics Sample Test Items

**Content:** Number & Quantity  
**Standard:** LC.A1: N-Q.A.1b  
**Complexity:** Tier 1                      **Key:** B

This item is about using measurements shown in a data table.

A store sells paint in one-gallon cans. The number of gallons of paint and the equivalent number of quarts are shown in this data table.

**Gallons to Quarts**

Gallons of Paint	Number of Quarts
 1gal	4
 1gal 1gal	8
 1gal 1gal 1gal	12

There are 4 quarts in one gallon of paint.

How many quarts are in 3 gallons of paint?

- a) 8 quarts
- b) 12 quarts

**Content:** Statistics & Probability

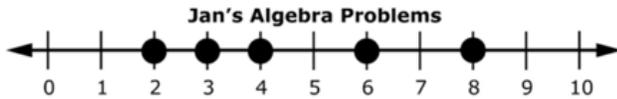
**Standard:** LC.A1-5:5-ID.A.2a

**Complexity:** Tier 1

**Key:** B

This item is about a number line.

This is a number line. The least value is farthest to the left on the number line. The greatest value is farthest to the right on the number line.



Jan does algebra problems. The dots on the number line show how many algebra problems Jan did in each of her math classes last week.

What is the greatest number of algebra problems that Jan did in math class last week?

- a) 2
- b) 8

**Content:** Algebra

**Standard:** LC.A1: A-CED.A.1

**Complexity:** Tier 3

**Key:** A

This item is about a data table of values and an equation.

A pet shop owner sells fish tanks containing white minnows and goldfish.

This data table shows how many white minnows and goldfish are in the different tanks.

**Fish Tank Choices**

Number of White Minnows ( $w$ )	Number of Goldfish ( $g$ )
2	4
4	6
6	8
?	10

The data table shows that the pet shop owner always places 2 more goldfish than white minnows into each tank.

The information in the data table can be used to write an equation.

$$w + 2 = g$$

The letter  $w$  stands for the number of white minnows. The number 2 is how many more goldfish than white minnows are in the tank. The letter  $g$  stands for the number of goldfish.

This equation can be used to find the number of white minnows in a tank when the pet shop owner places 10 goldfish in the tank.

$$w + 2 = 10$$

This is another problem about a data table of values and an equation. A different pet shop owner sells fish tanks containing fish. She always places 4 more tetras than guppies into each tank.

This data table shows how many guppies and tetras are in the different tanks.

**Fish Tank Choices**

Number of Guppies ( $g$ )	Number of Tetras ( $t$ )
3	7
6	10
9	13
?	15

Which equation can be used to find the number of guppies placed in each tank,  $g$ , when 15 tetras are placed in a tank?

- a)  $g + 4 = 15$
- b)  $15 + 4 = g$
- c)  $g + 15 = 4$

Science Sample Test Items

**Content:** From Molecules to Organisms

**Standard:** LC.HS.LS1.2a

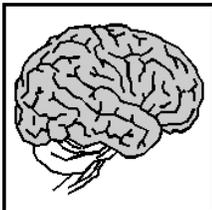
**Complexity:** Tier 1

**Key:** B

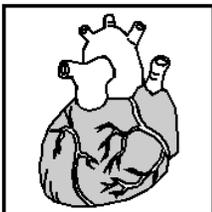
This item is about the human body.

Humans have many different organs. Different organs have different functions.

Which organ pumps blood throughout the body?



a) brain



b) heart

**Content:** Heredity

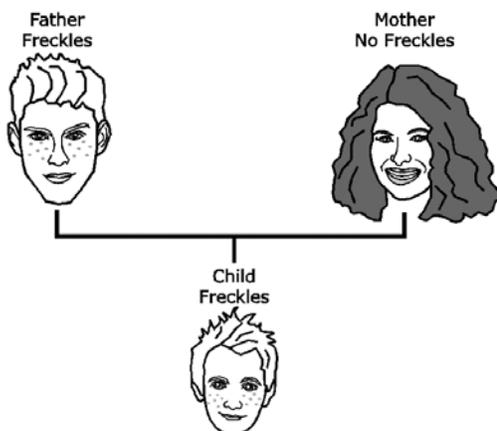
**Standard:** LC.HS.LS3.2a

**Complexity:** Tier 1

**Key:** B

This item is about traits.

A father with freckles and a mother with no freckles may have a child with freckles.



What does this indicate about parents' traits?

- a) No traits are passed from parent to offspring.
- b) Some traits are passed from parent to offspring.

**Content:** Ecosystems

**Standard:** LC.HS.LS2.6a

**Complexity:** Tier 3

**Key:** C

This item is about humans and the environment.

Humans interact with their environment every day. Some interactions are harmful to the environment. Humans can pollute the land, water, and air with trash. For example, millions of tons of trash are dumped into the oceans each year.

How can pollution caused by humans affect the environment?

- a) About 18 million acres of trees are cut every year for wood.
- b) Arctic ice and glaciers are melting and raising ocean levels.
- c) A whale died because it ate a large amount of garbage.

**Content:** Biological Evolution

**Standard:** LC.HS.LS4.2b

**Complexity:** Tier 3

**Key:** C

This item is about how animals survive in their environment.

If brown rabbits and white rabbits are living in a snowy environment, the white rabbit is more likely to survive.



The white rabbit is less noticeable against the white snow.

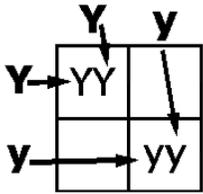
What characteristic helps the white rabbit survive?

- a) being very quiet
- b) having a fluffy tail
- c) blending in with its environment

**Content:** Heredity      **Standard:** LC.HS.LS3.3a  
**Complexity:** Tier 3      **Key:** Rubric

This item is about the Punnett square.

A Punnett square represents how alleles could be inherited when two organisms reproduce.



In this cross, “Y” stands for yellow peas and “y” stands for green peas.

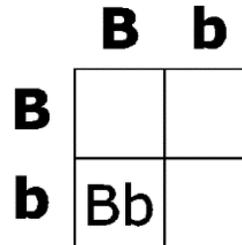
For pea color, yellow is a dominant trait and green is the recessive trait.

Both parents are heterozygous for color. Heterozygous means both parents have two different alleles (Yy) and are yellow.

Each offspring represented by a box in the Punnett square inherits letters from its row and column. For example, one “Y” from the mother and one “Y” from the father combine in the top left cell. This creates an offspring with yellow peas described as “YY”.

A different combination occurs when one “y” from the mother and one “y” from the father combine in the bottom right cell. This creates an offspring with green peas described as “yy”.

This is another Punnett square.



In this cross, “B” stands for brown eyes and “b” stands for blue eyes. For eye color in humans, brown is the dominant trait and blue is the recessive trait.

Both parents are heterozygous for eye color (Bb) and they both have brown eyes.

The first combination is done. One “B” from the mother and one “b” from the father combine in the bottom left cell. This creates an offspring with brown eyes described as “Bb”.



These are the pictures to use to complete the Punnett square. Place the pictures to complete the Punnett square.

**Rubric**

Score	Description
1	Student correctly places exactly 3 pictures on the Punnett square in the correct order (BB and Bb in top row; bb in bottom row).
0	Student does not correctly place exactly 3 on the Punnett square in the correct order.

**Content:** Biological Evolution  
**Standard:** LC.HS.LS4.5a  
**Complexity:** Tier 2 **Key:** Rubric

This item is about how human activity causes changes in the traits of wild animal populations.

Feather color is hereditary in owls. In some owls, grey feathers are dominant over brown feathers. Brown owls are more visible to predators when there is snow. Grey owls have an advantage over brown owls because they blend with the snow. This is a cause and effect relationship.

A white snowy environment has a high number of grey owls. Recently, winters are not as cold and there is less snow. Brown owl populations have greatly increased because of the changes to Earth's climate.

This is a chart.



Cause	Effect

These are statements to use to describe the cause and effect relationship. Not all the statements will be used.

The number of grey owls decreased.	Owls have big eyes.	There is less snow each year.
------------------------------------	---------------------	-------------------------------

The left side of the chart is labeled "Cause". Place the reason why something happened onto this side of the chart. The right side of the chart is labeled "Effect". Place the result of what happened onto this side of the chart.

**Rubric**

Score	Description
1	Student correctly places "There is less snow each year." under the "Cause" category and "The number of grey owls decreased." under the "Effect" category.
0	Student does not correctly place "There is less snow each year." under the "Cause" category and "The number of grey owls decreased." under the "Effect" category.

**Content:** From Molecules to Organisms  
**Standard:** LC.HS.LS1.8c  
**Complexity:** Tier 1 **Key:** A

*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 human diseases. Infectious diseases can be spread from one person to another. Which is a cause of an infectious disease?

- a) bacteria
- b) hand sanitizer

**Content:** Life Science **Standard:** LC.HS.LS1.8d  
**Complexity:** Tier 2 **Key:** Rubric

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

This item is about bacteria.

Bacteria and viruses can enter the body causing infectious disease. Both can be spread by coughing and sneezing. Medicines are often used to fight bacterial infections. Vaccines can provide immunity to certain types of viral infections.

This is a chart titled Some Treatments of Infectious Diseases.

**Some Treatments of Infectious Diseases**

Bacterial	Viral
	 Immunization

The left side is labeled "Bacterial". The right side is labeled "Viral". A treatment for viruses is shown on this side of the chart. These are pictures to use to complete the chart. Not all the pictures need to be used.

 Tissues	 Antibiotics	 Thermometer
--	--	--

The left side of the chart is labeled "Bacterial". Place the treatment for a bacterial infection onto this side of the chart.

**Rubric**

Score	Description
1	Student correctly places "Antibiotics" beneath "Bacterial."
0	Student does not correctly place "Antibiotics" beneath "Bacterial."

## Appendix B: Rubrics

Table 7. Writing Argument Rubric

Rubric Elements	Full Evidence	Partial Evidence	Limited Evidence	No/Unrelated Evidence
<b>Organization</b> The essay addresses a specified claim supported with organized complex ideas.	The essay includes at a minimum: <ul style="list-style-type: none"> <li>an introduction that states the claim and a rational reason</li> <li>a conclusion that states the claim and the rational reason</li> </ul>	The essay includes at a minimum: <ul style="list-style-type: none"> <li>an introduction that states the claim or a reason</li> <li>a conclusion that states the claim or the reason</li> </ul>	The essay includes at a minimum some evidence related to the specified claim/topic (i.e., introduction, claim/topic, or conclusion).	There is no evidence of organization or the evidence is off topic.
<b>Idea Development</b> The defended claim includes relevant evidence, and uses words, phrases, and clauses to clarify the relationship among claim, reasons, and evidence.	The essay includes at a minimum: <ul style="list-style-type: none"> <li>the body includes two relevant facts or examples</li> <li>words or phrases to connect the reason with one relevant fact or example</li> </ul>	The essay includes at a minimum: <ul style="list-style-type: none"> <li>the body includes only one relevant fact or example</li> <li>word or phrases to connect the reason with one fact or example</li> </ul>	The essay includes at a minimum a word related to the reason.	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 using student-generated text</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 using student-generated text</li> </ul>	The essay includes at a minimum one use of Standard English conventions.	There is no evidence of Standard English conventions.

## Appendix C: Vocabulary Lists

Table 10. High School Vocabulary List

English Language Arts				
author	describe	form	period	summary
central idea	detail	introduction	persuasive	text
claim	edit	key details	phrase	timeline
compare	effect	main idea	point of view	topic
conclusion	essay	organize	punctuation	
contrast	exclamation point	paragraph	question mark	
Mathematics				
angle	data table	figure	mean	similar
area	dimensions	formula	measurement	temperature
average	divided	graph	model	triangle
centimeters	equal	greatest	multiplication	unit
convert	equation	height	pattern	value
corresponding	exponent	histogram	problem	volume
cost	expression	hypotenuse	rate	weight
cube	extension	least	relationship	x-axis
data	Fahrenheit	length	shape	y-axis
Science				
algae	enzyme	immunity	organism	soot
allele	esophagus	immunization	parasite	species
ancestor	evidence	infection	phenomena	stable/stability
bacteria/bacterial	experiment	infectious	phenotype	starches
behavior	fungus/fungi	integumentary	pollute	survival
breed	gastric juices	interactions	pollution	territory
camouflage	gene	likelihood	predator	trait
characteristic	genetic trait	microorganisms	Punnett square	unstable
digestive system	habitat	natural selection	recessive	vaccine
dominant	heartrate	nutrients	recycle	vaccination
ecosystem	heterozygous	offspring	reproduction	virus/viral
environment	homozygous	organ	salivary glands	wetlands