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Purpose of This Document

This document is designed to provide teachers with information about the Prioritized Connectors (PCs) for the LEAP Connect assessments. It describes the rationale for the selection of the PCs and development of the Essential Understandings (EUs) associated with the PCs.

Prioritized Connectors (PCs) and Essential Understanding (EU)

The latest findings from the research literature have demonstrated that students with even the most significant disabilities are capable of learning much more academic content than once thought possible¹. Since the highest academic expectation for any student is that he or she will meet grade-level expectations, students with cognitive impairments should have – whenever possible – the same opportunity to achieve as all other students in our state.

The [Louisiana Connectors](#)(LCs) provide developmentally appropriate content for all grades and courses while maintaining high expectations for all students. The LCs accentuate the “big ideas” found in the Louisiana Student Standards (LSS).

LOUISIANA CONNECTORS



Based on research conducted by the partners of the NCSC General Supervision Enhancement Grant (GSEG), when students received two weeks of evidence-based classroom instruction (i.e., systematic instruction), 74% of the students who received instruction across all lessons made some progress. NCSC researchers concluded that teachers can focus instruction on 10 to 14 connectors, with more than two weeks of instruction for each standard, for students to achieve mastery and generalization². Considering that students with significant cognitive disabilities often need more time and more intensive supports to master the content standards, NCSC and partner states determined that approximately ten (10) connectors would be appropriate for the assessed content). NCSC consulted content experts, assessment experts, special educators, and state leaders in an iterative and collaborative process to prioritize the content.

In late November 2018, the LDOE approved a prioritization process for science that mirrored the approach adopted by NCSC for prioritization of ELA and mathematics connectors. Thus, the selected prioritization process was defined as prioritizing approximately ten (10) LCs for science by the proportion of LCs for science in each cluster of each discipline for grades 4 and 8 and in Life Science for high school. The LDOE convened committees of stakeholders³ to review and provide feedback regarding the proposed PCs for science at each grade.

To address the goal of assessments aligned with the Louisiana Student Standards and the LCs, edCount evaluators with content expertise systematically unpacked each PC for each content area into multiple components consisting of the primary knowledge, skills, and abilities to be acquired by students that are addressed by the assessments⁴. Each PC is represented by an Essential Understanding (EU). EUs identify the necessary, less complex, and foundational knowledge and skills required for students to learn in the content identified by an academic grade-level content target. The EUs refer to the fundamental, basic concepts and skills related to the LC that are essential to gaining an understanding of the content and the referents related to the grade-level learning of concepts and skills.

¹ Hudson M. E., Browder D. M., Wood L. A. (2013). Review of Experimental Research on Academic Learning by Students with Moderate and Severe Intellectual Disability in General Education. *Research and Practice for Persons with Severe Disabilities*.
Spooner, F., Knight, V. F., Browder, D. M., & Smith, B. R. (2012). Evidence-based practice for teaching academics to students with severe developmental disabilities. *Remedial and Special Education*.

² Browder, D., Flowers, C., Saunders, Bethune, & Spooner (2013). *Teaching students with significant cognitive disabilities the Common Core State Standards*. Unpublished manuscript.

³ Committees consisted of special education teachers and supervisors, school administrators, and parents of students with significant cognitive disabilities.

⁴ Mislevy, R. J., Steinberg, L. S., & Almond, R. G. (2003). On the structure of educational assessments. *Measurement: Interdisciplinary Research and Perspectives*.

English Language Arts (ELA)

Companion Resources for the ELA Guidebooks for Students with Significant Cognitive Disabilities

The LDOE, together with a dynamic team of ELA and special education practitioners from across the state, created the [Companion Resources for the ELA Guidebooks for Students with Significant Cognitive Disabilities](#). The *Companion Resources* are designed for teachers of students with the most significant needs to facilitate access and success with a high-quality curriculum, improve professional learning partnerships between special education teachers and content-area specialists, and increase opportunities for students with significant cognitive impairments to participate in inclusive, least restrictive environments. Users of the *Companion Resources* are also encouraged to examine the following additional resources which support teachers' introduction to and use of the *Companion Resources*:



- [Individual Student Case Studies & Modified Lesson Plans](#) from the pilot study (Grades 3-8, one Case Study & set of Modified Lesson Plans per grade)
- [ELA Guidebook Unit Unpacking Trainings for Teachers of SWSCDs](#) who are new to the Guidebooks (Grades 3-8, five units per grade)

The *Companion Resources* for each grade are broken down by unit. The resources for each unit contain the following:

- Unit Overview and Modified Overview
 - Unit description
 - Essential question
 - Culminating task
- Assessment Overview and Modified Overview
 - Culminating writing task
- Section Overview and Modified Overview (approximately ten (10) per unit)
 - Section Description
 - Assessment
 - Additional supports for diverse learners
- Lesson Overview and Modified Overview (approximately four (4) per section)
 - Lesson Description
 - Let's Express Our Understanding
 - Lesson Look-Fors
 - Texts
 - Materials

Essential Elements Cards (EEC) for ELA

The [Essential Elements Cards](#) are available to assist educators with individualizing instruction for students with significant disabilities both in inclusive and self-contained environments. These cards promote understanding of how students move toward the Louisiana Student Standards. Each contains one or more Louisiana Connector. The EECs are ordered first by strand (e.g., literature, informational text), then by grade span (e.g. K-2, 3-5) and finally by the aligned standards and Connectors (e.g. 1, 2, 3). While there are not yet EECs for every Louisiana Connector, there are resources associated with all strands and grade levels. To find a specific EEC, select a file from the appropriate strand in your content area (e.g., Informational Text). In ELA, select the grade band (e.g., 9-10) for which you are planning and open the .pdf document. Once there, do a search for either the Louisiana Student Standards or the Louisiana Connector you seek. Each EEC offers suggested instructional strategies to guide teacher planning and implementation and provides suggested supports for students so that they can demonstrate what they know.

Complexity Levels for ELA

The LEAP Connect assessments approach ELA content at varying levels of complexity so as to provide the most opportunities for students to demonstrate what they know and are able to do. Item developers use the EU to allow students access to the test at Tier 1 Complexity. Complexity of assessment content increases from Tiers 2 to 4. The following table describes ELA complexity at each Tier level.

Tier 1	Tier 2	Tier 3	Tier 4
<ul style="list-style-type: none"> short text with repeated ideas simple vocabulary words provides a specific “listen for” statement related to the item 	<ul style="list-style-type: none"> text with straightforward ideas provides a brief description of the item topic and simple definitions of terms provides a “listen for” statement related to the assessed skill 	<ul style="list-style-type: none"> text with clear ideas provides some detail about the item topic and definitions of terms provides statement reminding students what the item is about 	<ul style="list-style-type: none"> text with detailed and implied ideas provides statement reminding students what the item is about

Achievement Level Descriptors for ELA

LEAP Connect scale scores are used to assign a student’s achievement in ELA in one of four levels – Above Goal, At Goal, Near Goal, Below Goal. [Achievement Level Descriptors \(ALDs\) for ELA](#) further describe the knowledge, skills, and abilities that students generally demonstrate at each performance level dependent on text complexity – low, moderate, high.

Text Complexity Descriptions

- Low text complexity:** brief text with straightforward ideas and relationships; short, simple sentences (below to near goal)
- Moderate text complexity:** text with clear, complex ideas and relationships and simple, compound sentences (near to at goal)
- High text complexity:** text with detailed and implied complex ideas and relationships; a variety of sentence types including phrases and transition words (at to above goal)

ELA Prioritized Connectors, Essential Understandings, and Resources by Grade

ELA Grade 3

The following is a list of grade-specific ELA resources.

- [3 ELA Connectors](#)
- [Grade 3 ELA Guidebook Companion Resources for SWSCD](#)
- [Grade 3 Lesson Plans and Case Studies](#)
- [Grade 3 Unit Unpacking Overview](#)
- [Informational Text ELA 3-5 EEC](#)
- [Literature ELA 3-5 EEC](#)
- [Case Study - Tara - Grade 3 - ELA](#)
- [LEAP Connect Assessment Guide for Grades 3-5](#)
- [LEAP Connect ELA Sample CR Grades 3-5 Directions for Administration](#)
- [LEAP Connect ELA Sample CR Grades 3-5 Webinar \(slides\)](#)
- [LEAP Connect ELA Sample CR Stimuli Grades 3-5](#)
- [LEAP Connect ELA Sample CR, Grades 3-5 Webinar \(recording\)](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.3.1a Answer questions related to the relationship between characters, setting, events, or conflicts (e.g., characters and events, characters and conflicts, setting and conflicts).	Identify a character, setting, event, or conflict.	<i>Companion Resources:</i> Unit 1 (lessons 1, 3, 26, 29); <i>Literature ELA 3-5 EEC:</i> pp. 8-9 <i>Assessment Guide Grades 3-5:</i> p. 26
LC.RL.3.1b Answer literal questions and refer to text to support your answer.	Recall information in a text (e.g., repeated story lines).	<i>Companion Resources:</i> Unit 1A (lessons 23 & 25), Unit 1B (lessons 11-12), Unit 2, Unit 3 (lessons 6, 11-12, 14-16, 20- 24, 36 & 42-43), Unit 4 (lessons 1, 5 & 7)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.3.2a Identify the central message (theme), lesson, or moral within a story, folktale, or fable from diverse cultures.	Identify the topic of a text or information presented in diverse media.	<i>Companion Resources:</i> Unit 1A, Unit 1B (lesson 22), Unit 2 (lesson 15), Unit 4 (lessons 30-31) <i>Literature ELA 3-5 EEC:</i> pp. 6-7 <i>Grade 3 Lesson Plans and Case Studies</i>
LC.RI.3.2a Determine the main idea of text, read aloud, or information presented in diverse media and formats, including visually, quantitatively, and orally.	Identify the topic of a text or information presented in diverse media.	<i>Companion Resources:</i> Unit 1B (lessons 15-16 & 18), Unit 2 (lesson 15), Unit 3 (lessons 18-19) <i>Informational ELA 3-5 EEC:</i> pp. 3-5
LC.RI.3.2b Determine the main idea of a text; recount the key details and explain how they support the main idea.	Identify the topic of a text.	<i>Companion Resources:</i> Unit 1A (lessons 9-10), Unit 3 (lessons 16 & 18-20) <i>Informational ELA 3-5 EEC:</i> pp. 3-5 <i>Assessment Guide Grades 3-5:</i> p. 11
LC.RI.3.5a Identify the purpose of a variety of text features.	Identify the text feature (e.g., charts, illustrations, maps, titles).	<i>Informational ELA 3-5 EEC:</i> pp. 13-15 <i>Assessment Guide Grades 3-5:</i> p. 26
LC.RI.3.7a Use illustrations (e.g., maps, photographs) in informational texts to answer questions.	Identify an illustration in text.	<i>Companion Resources:</i> Unit 4 (lesson 20) <i>Informational ELA 3-5 EEC:</i> pp. 20-22
LC.RF.3.4b Identify grade-level words with accuracy.	Identify frequently used nouns.	<i>Companion Resources:</i> Unit 1B (lesson 1) <i>Grade 3 Lesson Plans and Case Studies</i> <i>Assessment Guide Grades 3-5:</i> p. 10
LC.L.3.4a Use sentence context as a clue to the meaning of a new word, phrase, or multiple meaning word.	Recall the meaning of frequently used nouns.	<i>Grade 3 Lesson Plans and Case Studies</i>
LC.W.3.2c Include illustrations to enhance clarity and meaning.	Identify different types of text features found in informational text.	<i>Companion Resources:</i> Unit 4 (lesson 20) <i>Assessment Guide Grades 3-5:</i> p. 26
LC.W.3.8g Sort evidence collected from print and/or digital sources into provided categories.	Identify information from print and digital sources on given topics (e.g., pictures of animals).	<i>Companion Resources:</i> Unit 3 (lesson 5)
LC.W.3.4 With guidance and support from adults, produce a permanent product that is appropriate to the specific task (e.g., topic or text), purpose (e.g., to inform or entertain), or audience (e.g., reader).	Given a specific purpose, produce a permanent product (e.g., select text appropriate to the purpose, identify descriptive sentences, and select a concluding statement).	<i>Companion Resources:</i> Unit 1B (lessons 32-35), Unit 4 (lesson 16) <i>Assessment Guide Grades 3-5:</i> p. 23, p. 26 <i>ELA Sample CR DTA, Stimuli, Webinar</i>

ELA Grade 4

The following is a list of grade-specific ELA resources.

- [4 ELA Connectors](#)
- [Grade 4 ELA Guidebook Companion Resources for SWSCD](#)
- [Grade 4 Lesson Plans and Case Studies](#)
- [Grade 4 Unit Unpacking Overview](#)
- [Informational Text ELA 3-5 EEC](#)
- [Literature ELA 3-5 EEC](#)
- [LEAP Connect Assessment Guide for Grades 3-5](#)
- [LEAP Connect ELA Sample CR Grades 3-5 Directions for Administration](#)
- [LEAP Connect ELA Sample CR Grades 3-5 Webinar](#) (slides)
- [LEAP Connect ELA Sample CR Stimuli Grades 3-5](#)
- [LEAP Connect ELA Sample CR, Grades 3-5 Webinar](#) (recording)
- [LEAP Connect Grade 4 ELA Directions for Practice Test Administration](#)
- [LEAP Connect Grade 4 ELA Graphics Files](#)
- [LEAP Connect Grade 4 ELA Practice Test Answer Key](#)
- [LEAP Connect Grade 4 ELA Practice Test Reference Materials](#)
- [Procedures for Administering the Practice Tests to Students Who are Visually Impaired Deaf or Deaf-Blind](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.4.1a Refer to details and examples in a text when explaining what the text says explicitly.	Recall details in a text.	<i>Companion Resources:</i> Unit 2 (lesson 24); <i>Assessment Guide Grades 3-5:</i> p. 12, <i>Literature ELA 3-5 EEC:</i> pp. 1, 27; <i>Information ELA 3-5 EEC:</i> pp. 1; LEAP Connect Practice Test Grade 4 - (#4,5, 21,22)
LC.RL.4.2b Determine the theme of a story, drama, or poem; refer to text to support answer.	Determine the topic of a story or poem.	<i>Companion Resources:</i> Unit 4 (lesson 8,9, 22, 24); <i>Literature ELA 3-5 EEC:</i> pp. 3, 6; LEAP Connect Practice Test Grade 4 - (#1,17-18); <i>Literature ELA 3-5 EEC:</i> pp. 10
LC.RL.4.3b Describe character traits (e.g., actions, deeds, dialogue, description, motivation, interactions); use details from text to support description.	Identify a character in text.	<i>Companion Resources:</i> Unit 3 (lesson 3, 5-6, 8-11, 15, 17-20, 26, 28-32); LEAP Connect Practice Test Grade 4 - (#2, 3,19, 20)
LC.RI.4.2a Determine the main idea of an informational text.	Recall a detail in the text.	<i>Companion Resources:</i> Unit 4 - Lesson 1, 15; <i>Information ELA 3-5 EEC:</i> pp. 3; LEAP Connect Practice Test Grade 4 - (#7, 24)
LC.RI.4.7a Use information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) to answer questions.	Identify basic text features (e.g., charts, graphs, diagrams, time lines, maps).	<i>Companion Resources:</i> Unit 4 (lesson 10); <i>Information ELA 3-5 EEC:</i> pp. 20; LEAP Connect Practice Test Grade 4 - (#7, 25, 28)
LC.RI.4.7c Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	Locate information within a simplified chart, map, or graph.	<i>Informational ELA 3-5 EEC:</i> pp. 20-21 <i>Grade 4 Lesson Plans and Case Studies;</i> <i>Information ELA 3-5 EEC:</i> pp. 20; LEAP Connect Practice Test Grade 4 - (#9, 10, 27, 27)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RF.4.3b Identify grade level words with accuracy and on successive attempts.	Identify frequently used words (e.g., EDL 2 or 3).	<i>Grade 4 Lesson Plans and Case Studies; LEAP Connect Practice Test Grade 4. - (#12-16, 29-31)</i>
LC.L.4.4a Use context to determine the meaning of unknown or multiple meaning words, or words showing shades of meaning.	Understand that words can have more than one meaning.	<i>Companion Resources: Unit 4 (lesson 14); LEAP Connect Practice Test Grade 4 - (#23)</i>
LC.L.4.6a Use grade-appropriate general academic and strand-specific words and phrases accurately when communicating.	Identify general academic words (e.g., EDL 2 or 3 map, character, equal, book, name, paper, etc.).	<i>Grade 4 Lesson Plans and Case Studies; LEAP Connect Practice Test Grade 4. - (#5, 11)</i>
LC.W.4.2c Include formatting (e.g., headings), illustrations, and multimedia when appropriate to convey information about the topic.	Identify the purpose (e.g., bullets are used for listing items) of using different formats, illustrations, or multimedia.	<i>Grade 4 Lesson Plans and Case Studies; LEAP Connect Practice Test Grade 4 (#33, 35)</i>
LC.W.4.2f Provide a concluding statement or section related to the information presented.	Identify a concluding sentence that signals a close of a paragraph (e.g., In conclusion..., As a result..., Finally...).	<i>Grade 4 Lesson Plans and Case Studies Assessment Guide Grades 3-5: p. 24; LEAP Connect Practice Test Grade 4 - (#32, 34)</i>
LC.W.4.4a Produce a clear coherent permanent product that is appropriate to the specific task (e.g., topic or text), purpose (e.g., to inform or entertain), and audience (e.g., reader).	Produce a clear coherent permanent product (e.g., generate responses to form a paragraph or essay) that is appropriate to the specific task, purpose (e.g., to inform), or audience.	<i>Grade 4 Lesson Plans and Case Studies Assessment Guide Grades 3-5: p. 14; LEAP Connect Practice Test Grade 4 - (#36- 40)</i>

ELA Grade 5

The following is a list of grade-specific ELA resources.

- [5 ELA Connectors](#)
- [Grade 5 ELA Guidebook Companion Resources for SWSCD](#)
- [Grade 5 Lesson Plans and Case Studies](#)
- [Grade 5 Unit Unpacking Overview](#)
- [Informational Text ELA 3-5 EEC](#)
- [Literature ELA 3-5 EEC](#)
- [LEAP Connect Assessment Guide for Grades 3-5](#)
- [LEAP Connect ELA Sample CR Grades 3-5 Directions for Administration](#)
- [LEAP Connect ELA Sample CR Grades 3-5 Webinar \(slides\)](#)
- [LEAP Connect ELA Sample CR Stimuli Grades 3-5](#)
- [LEAP Connect ELA Sample CR, Grades 3-5 Webinar \(recording\)](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.5.1a Refer to details and examples in a text when explaining what the text says explicitly.	Recall details in a text.	<i>Companion Resources: Unit 1 (lesson 3); Information ELA 3-5 EEC: pp. 1</i>
LC.RL.5.2b Summarize a text from beginning to end in a few sentences.	Identify what happens in the beginning of a story.	<i>Companion Resources: Unit 3 (lesson 19-20); Unit 4A (lesson 27); Literature ELA 3-5 EEC: pp. 3</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.5.3a Compare characters, settings, events within a story; provide or identify specific details in the text to support the comparison.	Identify characters, setting, and events in a story.	<i>Companion Resources: Unit 4A (lesson 1, 7, 25); Assessment Guide Grades 3-5: p. 13; Literature ELA 3-5 EEC: pp. 8</i>
LC.RI.5.2a Determine the main idea, and identify key details to support the main idea.	Identify the topic of a text.	<i>Companion Resources: Unit 1 (lesson 10, 25); Assessment Guide Grades 3-5: p. 3-5</i>
LC.RI.5.5c Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.	Identify a similarity or a difference between two pieces of information from a text.	<i>Assessment Guide Grades 3-5: p. 10-12; Informational Text ELA 3-5 EEC: pp. 3</i>
LC.RI.5.8a Explain how an author uses reasons and evidence to support particular points in a text.	Identify main/key ideas/points in a text.	<i>Companion Resources: Unit 1 (lesson 24); Assessment Guide Grades 3-5: p. 23-24</i>
LC.L.5.4a Use context to determine the meaning of unknown or multiple meaning words.	Identify multiple-meaning words (e.g., EDL 3 or 4).	<i>Grade 5 Lesson Plans and Case Studies</i>
LC.W.5.2b Group related information logically.	Identify a relationship of a set of items in various categories (definition, classification, compare/contrast, cause/effect).	<i>Grade 5 Lesson Plans and Case Studies</i>
LC.W.5.2c Develop the topic (i.e., add additional information related to the topic) with facts, definitions, concrete details, quotations, or other information and examples.	Identify facts and details related to a specified topic.	<i>Grade 5 Lesson Plans and Case Studies;</i>
LC.W.5.4 Produce a clear, coherent permanent product that is appropriate to the specific task (e.g., topic or text), purpose (e.g., to inform or entertain), and audience (e.g., reader).	Given a specific purpose, produce a permanent product (e.g., select text appropriate to the purpose, identify descriptive sentences, and select a concluding statement).	<i>Companion Resources: Unit 3 (lesson 31, 33)</i>

ELA Grade 6

The following is a list of grade-specific ELA resources.

- [6 ELA Connectors](#)
- [Grade 6 ELA Guidebook Companion Resources for SWSCD](#)
- [Grade 6 Lesson Plans and Case Studies](#)
- [Grade 6 Unit Unpacking Overview](#)
- [Informational Text ELA 6-8 EEC](#)
- [Literature ELA 6-8 EEC](#)
- [LEAP Connect Assessment Guide for Grades 6-8](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Directions for Administration](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Webinar](#) (slides)
- [LEAP Connect ELA Sample CR Stimuli Grades 6-8, 11](#)
- [LEAP Connect ELA Samples CR Grades 6-8, 11 Webinar](#) (recording)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.6.1a Refer to details and examples in a text when explaining what the text says explicitly.	Recall details in a text.	<i>Companion Resources: Grade 6 Unit 2 (lesson 27); Grade 6: Unit 4A (lesson 1); Grade 6 Unit 4A (lesson 12); Grade 6 Section 10 (lesson 24-29); Literature ELA 6-8 EEC; - p.7</i>
LC.RL.6.1b Use specific details from the text (e.g., words, interactions, thoughts, motivations) to support inferences or conclusions about characters including how they change during the course of the story.	Identify characters in a story.	<i>Companion Resources: Grade 6 Unit 2 (lesson 27); Grade 6 Unit 3 (lesson - 1); Literature ELA 6-8 EEC; Grade 6 Unit 3 (lesson 2); Grade 6 Unit 3 (lesson 4); Literature ELA 6-8 EEC; - p.13,15</i>
LC.RL.6.2c Summarize a text from beginning to end in a few sentences without including personal opinions.	Identify what happens in the beginning and ending of a story.	<i>Literature ELA 6-8 EEC - p.5; Companion Resources: Grade 6 Unit 3 (lesson 6, 10 - 11)</i>
LC.RI.6.2 Provide a summary of the text distinct from personal opinions or judgments.	Identify the main idea of a text.	<i>Companion Resources: Grade 6 Unit 2 (lesson - 3, 6, 10 - 11, 20); Informational Text ELA 6-8 - p. 1</i>
LC.RI.6.3d Determine how key individuals, events, or ideas are elaborated or expanded on in a text.	Identify a description of an event or individual in a text.	<i>Companion Resources: Unit 1 (lesson 4, 10, 12, 16); Informational Text ELA 6-8 - p. 6</i>
LC.RI.6.7b Summarize information gained from a variety of sources including media or texts.	Identify a topic from a single source.	<i>Companion Resources: Unit 1 (lesson 6, 15, 16, 20, 24); Literature ELA 6-8 EEC - p.5</i>
LC.RI.6.8b Evaluate the claim or argument; determine if it is supported by evidence.	Identify a fact from the text.	<i>Companion Resources: Grade 6 Unit 2 (lesson - 5, 13, 23); Informational Text ELA 6-8 - p. 25</i>
LC.L.6.4a Use context to determine the meaning of unknown or multiple meaning words.	Identify multiple meaning words (e.g., EDL 4 or 5).	<i>Companion Resources: Grade 6 Unit 4A (lesson - 5)</i>
LC.L.6.6a Use grade-appropriate general academic and strand-specific words and phrases accurately.	Identify general academic words (e.g., EDL 4 or 5).	<i>Grade 6 Lesson Plans and Case Studies</i>
LC.W.6.3b Organize events so they unfold naturally.	Identify order of events given a short passage/text (e.g., sequence a set of events from an adapted chapter).	<i>Companion Resources: Grade 6 Unit 1 (lesson - 3, 10, 11, 20, 21))</i>
LC.W.6.3d Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.	Match transition words, phrases, and clauses within a text.	<i>Grade 6 Lesson Plans and Case Studies; Companion Resources: Grade 6 Unit 1 (lesson - 29)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.W.6.4 Produce a clear, coherent permanent product that is appropriate to the specific task (e.g., topic or text), purpose (e.g., to inform or entertain), and audience (e.g., reader).	Given a specific purpose, produce a permanent product (e.g., select text appropriate to the purpose, identify descriptive sentences, and select a concluding statement).	<i>Companion Resources: Grade 6 Unit 4A (lesson - 9, 11, 30-31)</i>

ELA Grade 7

The following is a list of grade-specific ELA resources.

- [7 ELA Connectors](#)
- [Grade 7 ELA Guidebook Companion Resources for SWSCD](#)
- [Grade 7 Lesson Plans and Case Studies](#)
- [Grade 7 Unit Unpacking Overview](#)
- [Informational Text ELA 6-8 EEC](#)
- [Literature ELA 6-8 EEC](#)
- [LEAP Connect Assessment Guide for Grades 6-8](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Directions for Administration](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Webinar](#) (slides)
- [LEAP Connect ELA Sample CR Stimuli Grades 6-8, 11](#)
- [LEAP Connect ELA Samples CR Grades 6-8, 11 Webinar](#) (recording)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.7.1b Use two or more pieces of textual evidence to support conclusions, or summaries of text.	Make an inference from a literary text.	<i>Literature ELA 6-8 EEC p 13; Companion Resources: Grade 7 Unit 2A (lesson - 26 - 28); Grade 7 Unit 2B (lesson - 2, 4,5, 9, 24, 26, 29)</i>
LC.RL.7.2b Analyze the development of the theme or central idea over the course of the text.	Identify the theme or central idea of the text.	<i>Literature ELA 6-8 EEC p. 5, 11; Companion Resources: Grade 7 Unit 1 (lesson - 5); Unit 2A (lesson 3, 13 -16, 24 - 28); Unit 2B (lesson 27, 35); Unit 3 (lesson 5 - 6, 20, 25 - 26); Unit 4 (lesson 3)</i>
LC.RI.7.1 Use two or more pieces of evidence to support inferences, conclusions, or summaries of text.	Identify a conclusion from an informational text.	<i>Informational Text ELA 6-8 EEC p.3; Companion Resources: Grade 7 Unit 3 (lesson 8); Unit 4 (lesson 6 - 7, 19, 26, 30 - 31)</i>
LC.RI.7.3 Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	Identify the relationship between people, events, or ideas in a text.	<i>Informational Text ELA 6-8 EEC p.6; Companion Resources: Grade 7: Unit 1 (lesson - 9, 10); Unit 3 (lesson 4, 9, 10, 21); Unit 4 (lesson 8, 10, 11, 15, 25, 27)</i>
LC.RI.7.7 Compare/contrast how two or more authors write or present about the same topic.	Compare/Contrast two statements related to a single detail with a topic. Identify two texts on the same topic.	<i>Informational Text ELA 6-8 EEC p. 28; Companion Resources: Grade 7: Unit 1 (lesson 1); Unit 4 (lesson 26)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RI.7.8b Evaluate the claim or argument to determine if they are supported by evidence.	Identify a claim from the text.	<i>Informational Text ELA 6-8 EEC p. 25; Companion Resources: Grade 7: Unit 1 (lesson 2); Unit 3 (lesson 3); Unit 4 (lesson 2, 6, 19, 41)</i>
LC.L.7.4a Use context as a clue to determine the meaning of a grade-appropriate word or phrase.	Use context as a clue to determine the meaning of a word (e.g., EDL grade 5 or 6).	<i>Companion Resources: Grade 7: Unit 2B (lesson 5, 25)</i>
LC.W.7.3e Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.	Identify a visual image to match the provided text.	<i>Companion Resources: Grade 7: Unit 2B (lesson 4)</i>
LC.W.7.3f Provide a conclusion that follows from the narrated experiences or events.	Provide a conclusion (concluding sentence, paragraph, or extended ending) that follows from the narrated experiences or events.	<i>Companion Resources: Grade 7: Unit 2B (lesson 4)</i>
LC.W.7.4 Produce a clear, coherent permanent product that is appropriate to the specific task (e.g., topic or text), purpose (e.g., to persuade or inform), and audience (e.g., reader).	Given a specific purpose, produce a permanent product (e.g., select text appropriate to the purpose, identify descriptive sentences, and select a concluding statement).	<i>Companion Resources: Grade 7: Unit 2A (Lesson 27), Unit 2B (lesson - 35,37,38)</i>

ELA Grade 8

The following is a list of grade-specific ELA resources.

- [8 ELA Connectors](#)
- [Grade 8 ELA Guidebook Companion Resources for SWSCD](#)
- [Grade 8 Lesson Plans and Case Studies](#)
- [Grade 8 Unit Unpacking Overview](#)
- [Case Study - Jerome - Grade 8 - ELA](#)
- [Informational Text ELA 6-8 EEC](#)
- [Literature ELA 6-8 EEC](#)
- [LEAP Connect Assessment Guide for Grades 6-8](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Directions for Administration](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Webinar](#) (slides)
- [LEAP Connect ELA Sample CR Stimuli Grades 6-8, 11](#)
- [LEAP Connect ELA Samples CR Grades 6-8, 11 Webinar](#) (recording)
- [LEAP Connect Grade 8 ELA Directions for Practice Test Administration](#)
- [LEAP Connect Grade 8 ELA Graphics Files](#)
- [LEAP Connect Grade 8 ELA Practice Test Answer Key](#)
- [LEAP Connect Grade 8 ELA Practice Test Reference Materials](#)
- [Procedures for Administering the Practice Tests to Students Who are Visually Impaired Deaf or Deaf-Blind](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.8.1b Use two or more pieces of evidence to support inferences, conclusions, or summaries of text.	Make an inference from a literary text.	<i>Literature ELA 6-8 EEC p. 13;</i> <i>Companion Resources: Grade 8 TTH Section 4 (lesson 15); Grade 8 TTH Section 5 (lesson 20); Grade 8 ELA Practice Test (#10-13, 21-24)</i>
LC.RL.8.2b Analyze the development of the theme or central idea over the course of the text including its relationship to the characters, setting and plot.	Identify the theme or central idea of the text.	<i>Literature ELA 6-8 EEC p. 5, 11; Grade 8 ELA Practice Test (#9,20)</i>
LC.RI.8.1a Use two or more pieces of evidence to support inferences, conclusions, or summaries of text.	Make an inference from an informational text.	<i>Informational Text ELA 6-8 EEC p. 3;</i> <i>Grade 8 ELA Practice Test (#3,7, 17, 18)</i>
LC.RI.8.5d Determine how the information in each section contributes to the whole or to the development of ideas.	Identify the related portion of a text (e.g., beginning, end) to a provided sentence.	<i>Informational Text ELA 6-8 EEC p.23;</i> <i>Grade 8 ELA Practice Test (#2, 6, 16)</i>
LC.RI.8.8a Identify an argument or claim that the author makes.	Identify a fact from the text.	<i>Informational Text ELA 6-8 EEC p. 25</i> <i>Grade 8 ELA Practice Test (#4, 8, 15)</i>
LC.RI.8.9 Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.	Identify a similar topic in two texts.	<i>Informational Text ELA 6-8 EEC p. 28;</i> <i>Grade 8 ELA Practice Test (#1)</i>
LC.L.8.4a Use context as a clue to the meaning of a grade-appropriate word or phrase.	Use context as a clue to determine the meaning of a word (e.g., EDL grade 6 or 7).	<i>Grade 8 ELA Practice Test (#14, 25)</i>
LC.L.8.6a Use grade-appropriate general academic and strand-specific words and phrases accurately.	Identify general academic words (e.g., EDL 6 or 7).	<i>LEAP Connect Assessment Guide Grade 6-8 p. 12; Grade 8 ELA Practice Test (#5, 19))</i>
LC.W.8.1b Create an organizational structure in which ideas are logically grouped to support the claim.	Given a writer’s claims, identify the writer’s perspective on the topic (e.g., pro or con).	<i>Grade 8 ELA Practice Test (#27, 29)</i>
LC.W.8.4 Produce a clear, coherent permanent product that is appropriate to the specific task (e.g., topic or text), purpose (e.g., to persuade or inform), and audience (e.g., reader).	Given a specific purpose, produce a permanent product (e.g., select text appropriate to the purpose, identify descriptive sentences, and select a concluding statement).	<i>Companion Resources: Grade 8 TTH Section 5 - Lesson 23;</i> <i>Grade 8 ELA Practice Test (#30-36)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.W.8.8a Gather relevant information (e.g., highlight in text, quote or paraphrase from text or discussion) from print (e.g., text read aloud, printed image) and/or digital sources (e.g., video, audio, images/graphics) relevant to a topic.	Identify sources of information relevant to the topic (e.g., print and/or digital).	<i>Grade 8 ELA Practice Test (#26, 28)</i>

ELA High School

The following is a list of grade-specific ELA resources.

- [11 & 12 ELA Connectors](#)
- [Informational Text ELA 9-12 EEC](#)
- [Literature ELA 9-12 EEC](#)
- [Case Study - Dave - Grade 10 - ELA](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Directions for Administration](#)
- [LEAP Connect ELA Sample CR Grades 6-8, 11 Webinar](#) (slides)
- [LEAP Connect ELA Sample CR Stimuli Grades 6-8, 11](#)
- [LEAP Connect ELA Samples CR Grades 6-8, 11 Webinar](#) (recording)
- [LEAP Connect Assessment Guide for High School](#)
- [LEAP Connect High School ELA Directions for Practice Test Administration](#)
- [LEAP Connect High School ELA Graphics Files](#)
- [LEAP Connect High School ELA Practice Test Answer Key](#)
- [LEAP Connect High School ELA Practice Test Reference Materials](#)
- [Procedures for Administering the Practice Tests to Students Who are Visually Impaired Deaf or Deaf-Blind PDF](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RL.11-12.1a Use two or more pieces of evidence to support inferences, conclusions, or summaries of the plot, purpose, or theme within a text.	Identify a summary of the plot of a literary text.	<i>Literature ELA 9-12 EEC p. 4; LEAP Connect HS ELA Practice Test - (#9, 10, 20)</i>
LC.RL.11-12.5 Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning.	Identify elements of a story's plot (e.g., exposition, rising action, climax, falling action, resolution).	<i>Literature ELA 9-12 EEC - p. 13; LEAP Connect HS ELA Practice Test - (#11, 12, 21, 22)</i>
LC.RI.11-12.1a Use two or more pieces of evidence to support inferences, conclusions, or summaries of text.	Identify a conclusion from an informational text.	<i>Informational Text ELA 9-12 EEC - p. 1; LEAP Connect HS ELA Practice Test - (#3, 8, 15, 16)</i>
LC.RI.11-12.2c Determine how key details support the development of the central idea of a text.	Identify the central idea or key detail of a text.	<i>Informational Text ELA 9-12 EEC - p. 10; LEAP Connect HS ELA Practice Test - (#1, 5, 14, 17)</i>
LC.RI.11-12.6a Determine the author's point of view or purpose in a text.	Identify what an author tells about a topic.	<i>Informational Text ELA 9-12 EEC - p. 4; LEAP Connect HS ELA Practice Test - (#2, 6, 18, 23); LEAP Connect Assessment Guide for HS - p. 9</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.RI.11-12.6d Develop and explain ideas for why authors made specific word choices within text.	Identify a word or words used to describe a person, place, thing, action, or event in a text (e.g., EDL grade 8 or 9).	<i>LEAP Connect HS ELA Practice Test - (#4)</i>
LC.RI.11-12.7 Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.	Locate information within a text related to a given topic.	<i>Informational Text ELA 9-12 EEC - p. 16; LEAP Connect HS ELA Practice Test - (#7)</i>
LC.L.11-12.4a Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position in a sentence) as a clue to the meaning of a word or phrase.	Use context as a clue to determine the meaning of a word in text (e.g., EDL grade 8 or 9).	<i>LEAP Connect HS ELA Practice Test - (#13, 19)</i>
LC.W.11-12.2b Create an organizational structure (e.g., cause/effect, compare/contrast, descriptions and examples) that groups information logically to support the stated topic.	Identify information that doesn't belong in a paragraph based on an organizational structure (e.g., examples, descriptions, cause/effect, compare/contrast).	<i>LEAP Connect HS ELA Practice Test - (#24, 26)</i>
LC.W.11-12.2c Develop the topic (i.e., add additional information related to the topic) with facts, extended definitions, concrete details, quotations, or other information and examples that are most relevant to the focus and appropriate for the audience.	Match details, facts, or examples to a topic.	<i>LEAP Connect HS ELA Practice Test - (#27)</i>
LC.W.11-12.4 Produce a clear, coherent permanent product that is appropriate to the specific task (e.g., topic or text), purpose (e.g., to persuade or inform), or audience (e.g., reader).	Given a specific purpose, produce a permanent product (e.g., select text appropriate to the purpose, identify descriptive sentences, and select a concluding statement).	<i>LEAP Connect HS ELA Practice Test - (#28-34)</i>

Mathematics

Essential Elements Cards (EEC) for Mathematics

The Essential Elements Cards are available to assist educators with individualizing instruction for students with significant disabilities both in inclusive and self-contained environments. These cards promote understanding of how students move toward the Louisiana Student Standards. Each contains one or more Louisiana Connector. The Essential Elements cards are ordered first by strand (e.g., measurement, data and probability), then by grades for mathematics (e.g., 6, 7), and finally by the aligned standards and Connectors (e.g. 1, 2, 3). While there are not yet Essential Elements Cards for every Louisiana Connector, there are resources associated with all strands and grade levels. To find a specific EEC, select a file from the appropriate strand in your content area (e.g., Geometry). In math, simply open the grade (e.g., 6 or 7) or subject-appropriate (e.g., Algebra I, Algebra II) file. Once there, do a search for either the Louisiana Student Standards or the Louisiana Connector you seek. For mathematics, each EEC starts by identifying concrete understandings and representations that include measurable and observable content that is challenging, yet attainable. Then, each EEC offers suggested instructional strategies to guide teacher planning and implementation and provides suggested supports for students so that they can demonstrate what they know.

Complexity Levels for Mathematics

The LEAP Connect assessments approach mathematics content at varying levels of complexity so as to provide the most opportunities for students to demonstrate what they know and are able to do. Item developers use the EU to allow students access to the test at Tier 1 Complexity. Complexity of assessment content increases from Tiers 2 to 4. The following table describes mathematics complexity at each Tier level.

Tier 1	Tier 2	Tier 3	Tier 4
<ul style="list-style-type: none"> supports use of hands-on concrete materials 	<ul style="list-style-type: none"> successive model that guides one step at a time simplified language and/or visual representations few data points increase magnitude of numbers 	<ul style="list-style-type: none"> model that shows solution to a similar problem simplified language additional number of data points further increase in magnitude of numbers 	<ul style="list-style-type: none"> statement reminding student what the item is about

Achievement Level Descriptors for Mathematics

LEAP Connect scale scores are used to assign a student’s achievement in mathematics in one of four levels – Above Goal, At Goal, Near Goal, Below Goal. [Achievement Level Descriptors \(ALDs\) for mathematics](#) further describe the knowledge, skills, and abilities that students generally demonstrate at each performance level dependent on task complexity – low, moderate, high.

Task Complexity Descriptions

- **Low task complexity:** Simple problems using common mathematical terms and symbols (below to near goal)
- **Moderate task complexity:** Common problems presented in mathematical context using various mathematical terms and symbols (near to at goal)
- **High task complexity:** Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements (at to above goal)

Mathematics Prioritized Connectors, Essential Understandings, and Resources by Grade

Mathematics Grade 3

The following is a list of grade-specific mathematics resources.

- [Grade 3 Math Connectors](#)
- [Geometry EECs](#)
- [Measurement EECs](#)
- [Number Operations Fractions EECs](#)
- [Number Operations Real Numbers EECs](#)
- [Patterns Relations and Functions EECs](#)
- [LEAP Connect Assessment Guide for Grades 3-5](#)
- [LEAP Connect Mathematics Sample CR Webinar](#)
(slides)
- [LEAP Connect Sample Math CR Directions for Administration](#)
- [LEAP Connect Sample Math CR Reference Materials](#)
- [LEAP Connect Grade 3 Math Directions for Practice Test Administration](#)
- [LEAP Connect Grade 3 Math Graphics Files](#)
- [LEAP Connect Grade 3 Math Practice Test Answer Key](#)
- [LEAP Connect Grade 3 Math Practice Test Reference Material](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.3.OA.C.7c Solve multiplication problems with neither number greater than 5.	Create an array of sets (e.g., 4 rows of 3).	<i>LEAP Connect Assessment Guide for Grades 3-5 - p. 15; Number Operations Real Numbers EEC - p. 40; LEAP Connect Grade 3 Math Practice Test - (#5, 7, 24)</i>
LC.3.OA.D.8b Solve or solve and check one or two step word problems requiring addition, subtraction or multiplication with answers up to 100.	Combine (+), decompose (—), and multiply (×) with concrete objects; use counting to get the answers. Match the action of combining with vocabulary (i.e., in all; altogether) or the action of decomposing with vocabulary (i.e., have left; take away) in a word problem.	<i>Number Operations Real Numbers EEC - p. 45; LEAP Connect Grade 3 Math Practice Test - (#2, 8, 25)</i>
LC.3.OA.D.9c Identify multiplication patterns in a real-world setting.	Identify a pattern that grows using shapes, symbols, or objects.	<i>Math Patterns, Relations, Functions EEC - p. 6; LEAP Connect Grade 3 Math Practice Test - (#3, 17, 31, 32)</i>
LC.3.NBT.A.1 Use place value to round to the nearest 10 or 100.	Identify ones or tens in bundled sets – Similar/different with concrete representations (i.e., is this set of manipulatives (8 ones) closer to this set (a ten) or this set (a one)?).	<i>LEAP Connect Assessment Guide for Grades 3-5 - p. 15; Number Operations Real Numbers EEC - p. 23; LEAP Connect Grade 3 Math Practice Test - (#11, 18, 34)</i>
LC.3.NBT.A.2b Solve multi-step addition and subtraction problems up to 100.	Combine (+) or decompose (—) with concrete objects; use counting to get the answers.	<i>Number Operations Real Numbers EEC - p. 39; LEAP Connect Grade 3 Math Practice Test - (#6, 9, 23)</i>
LC.3.NF.A.1c Identify the fraction that matches the representation (rectangles and circles; halves, fourths, thirds, eighths).	Identify part and whole when an item is divided. Count the number of the parts selected (3 of the 4 parts; have a fraction present but not required to read $\frac{3}{4}$).	<i>LEAP Connect Assessment Guide for Grades 3-5 - p. 16; Math Numbers Operations Fractions EEC - p. 4; LEAP Connect Grade 3 Math Practice Test - (#13, 19, 22)</i>
LC.3.NF.A.3a Use =, <, or > to compare two fractions with the same numerator or denominator.	Identify a representation of a fractional part of a whole as greater than, less than, equal to another.	<i>Math Numbers Operations Fractions EEC - p. 15; LEAP Connect Grade 3 Math Practice Test - (#1, 15, 28, 33)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.3.MD.B.3a Collect data, organize into picture or bar graph.	Organize data into a graph using objects (may have number symbols).	<i>Math Numbers Operations Fractions EEC - p. 4; LEAP Connect Grade 3 Math Practice Test - (#4, 20, 35)</i>
LC.3.MD.C.6 Measure area of rectangles by counting squares.	Identify the area of a rectangular figure.	<i>Math Measurement EEC - p. 7; LEAP Connect Grade 3 Math Practice Test - (#10, 14, 27, 29)</i>
LC.3.G.A.2 Partition rectangles into equal parts with equal area.	Identify the rectangle that is the same or match two congruent rectangles.	<i>Math Geometry EEC - p. 19; LEAP Connect Grade 3 Math Practice Test - (#12, 16, 21, 26)</i>

Mathematics Grade 4

The following is a list of grade-specific mathematics resources.

- [Grade 4 Math Connectors](#)
- [Geometry EECs](#)
- [Measurement EECs](#)
- [Number Operations Fractions EECs](#)
- [Number Operations Real Numbers EECs](#)
- [LEAP Connect Assessment Guide for Grades 3-5](#)
- [LEAP Connect Mathematics Sample CR Webinar](#) (slides)
- [LEAP Connect Sample Math CR Directions for Administration](#)
- [LEAP Connect Sample Math CR Reference Materials](#)
- [Procedures for Administering the Practice Tests to Students Who are Visually Impaired Deaf or Deaf-Blind](#)
- [LEAP Connect Grade 4 Math Directions for Practice Test Administration](#)
- [LEAP Connect Grade 4 Math Graphics Files](#)
- [LEAP Connect Grade 4 Math Practice Test Answer Key](#)
- [LEAP Connect Grade 4 Math Practice Test Reference Material](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.4.OA.A.2a Determine how many objects go into each group when given the total number of objects and the number of groups where the number in each group or number of groups is not greater than 10.	Create an array of objects given a specific number of rows and the total number.	<i>Number Operations Real Numbers EEC - p. 47; LEAP Connect HS Math Practice Test - (#7, 9)</i>
LC.4.OA.A.2b Solve multiplicative comparisons with an unknown using up to 2-digit numbers with information presented in a graph or word problem (e.g., an orange hat cost \$3. A purple hat cost 2 times as much. How much does the purple hat cost? [$3 \times 2 = p$]).	Identify visual multiplicative comparisons (e.g., which shows two times as many tiles as this set?).	<i>Number Operations Real Numbers EEC - p. 47; LEAP Connect HS Math Practice Test - (#11, 15, 27)</i>
LC.4.OA.A.3a Solve or solve and check one or two step word problems requiring addition, subtraction or multiplication with answers up to 100.	Select the pictorial representation that shows an addition or multiplication equation.	<i>Number Operations Real Numbers EEC - p. 49; LEAP Connect HS Math Practice Test - (#2, 5, 32)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.4.NBT.A.3 Use place value to round to any place (i.e., ones, tens, hundreds, thousands).	Identify ones, tens, hundreds in bundled sets that are closest to a provided set (i.e., is this set (8 tens) closer to this set (a hundred) or this set (a ten)?).	<i>Number Operations Real Numbers EEC - p. 26; LEAP Connect HS Math Practice Test - (#14, 17, 20, 29)</i>
LC.4.NF.A.1 Determine equivalent fractions.	Identify equivalent representations of a fraction (e.g., shaded diagram).	<i>Number Operations Fractions EEC - p. 23; LEAP Connect HS Math Practice Test - (#3, 24, 30)</i>
LC.4.NF.A.2a Use =, <, or > to compare 2 fractions (fractions with a denominator of 10 or less).	Identify a representation of a fractional part of a whole as greater than, less than, or equal to another.	<i>Number Operations Fractions EEC - p. 17; LEAP Connect HS Math Practice Test - (#11, 21, 33)</i>
LC.4.NF.A.2b Compare up to 2 given fractions that have different denominators.	Differentiate between parts and a whole.	<i>Number Operations Fractions EEC - p. 26; LEAP Connect HS Math Practice Test - (#6, 10, 19)</i>
LC.4.MD.A.3 Solve word problems using perimeter and area where changes occur to the dimensions of a figure.	Identify the perimeter. Identify the area. Show perimeter or area when the size of figure changes.	<i>Measurement EEC - p. 8; LEAP Connect HS Math Practice Test - (#8, 13, 26, 31)</i>
LC.4.MD.B.4a Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8).	Identify data set based on a single attribute (e.g., pencils vs. markers). Identify data set with more or less (e.g., this bar represents a set with more). Plot fractions on a number line for foundation of line plots.	<i>LEAP Connect HS Math Practice Test - (#4, 16, 23)</i>
LC.4.G.A.2a Classify two-dimensional shapes based on attributes (# of angles).	Identify attributes within a 2-dimensional figure (e.g., rectangles have sides – student identifies sides of rectangle – and angles – student identifies angles in rectangle).	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 16; Geometry EECs - p. 23; LEAP Connect HS Math Practice Test - (#1 18, 25, 34)</i>

Mathematics Grade 5

The following is a list of grade-specific mathematics resources.

- [Grade 5 Math Connectors](#)
- [Geometry EECs](#)
- [Measurement EECs](#)
- [Number Operations Fractions EECs](#)
- [Patterns Relations and Functions EECs](#)
- [Case Study - Sam - Grade 5 - Mathematics](#)
- [LEAP Connect Assessment Guide for Grades 3-5](#)
- [LEAP Connect Mathematics Sample CR Webinar](#) (slides)
- [LEAP Connect Sample Math CR Directions for Administration](#)
- [LEAP Connect Sample Math CR Reference Materials](#)
- [LEAP Connect Grade 5 Math Directions for Practice Test Administration](#)
- [LEAP Connect Grade 5 Math Graphics Files](#)
- [LEAP Connect Grade 5 Math Practice Test Answer Key](#)
- [LEAP Connect Grade 5 Math Practice Test Reference Material](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.5.OA.B.3c Generate or select a comparison between two graphs from a similar situation.	Compare two pieces of information provided in a single display.	<i>LEAP Connect Grade 5 Math Practice Test - (#5, 9, 35)</i>
LC.5.NBT.A.3a Read, write, or select a decimal to the hundredths place.	Match a model of a value in the tenths place to a number (e.g., 0.4).	<i>Number Operations Fractions EECs - p.10; LEAP Connect Grade 5 Math Practice Test - (#6, 8, 20, 29)</i>
LC.5.NBT.A.4a Round decimals to the next whole number.	Identify place value to the ones, tens, hundreds, thousands.	<i>Number Operations Fractions EECs - p. 10; LEAP Connect Grade 5 Math Practice Test - (#2, 11, 23, 25)</i>
LC.5.NBT.B.5 Multiply whole numbers with up to 3-digits by numbers with up to 2-digits.	Combine (\times) with concrete objects; use counting to get the answers.	<i>Number Operations Fractions EECs - p. 41;</i>
LC.5.NBT.B.6a Find whole number quotients up to two-digit dividends and two-digit divisors.	Decompose (\div) with concrete objects; use counting to get the answers.	<i>LEAP Connect Grade 5 Math Practice Test - (#14, 22, 33)</i>
LC.5.NBT.B.7 Solve 1 step problems using decimals.	Solve subtraction problems with whole numbers.	<i>Number Operations Fractions EECs - p. 41; LEAP Connect Grade 5 Math Practice Test - (#15, 17, 32)</i>
LC.5.NF.A.2 Solve one-step word problems involving addition and subtraction of fractions with unlike denominators.	Identify a symbolic representation of the addition of two fractions.	<i>Number Operations Fractions EECs - p. 30; LEAP Connect Grade 5 Math Practice Test - (#16, 18, 31)</i>
LC.5.NF.B.5 Determine whether the product will increase or decrease based on the multiplier.	Ability to identify that the total number of objects in a set will increase when the set is multiplied by a whole number greater than one.	<i>Patterns, Relations, and Functions p. 11; LEAP Connect Grade 5 Math Practice Test - (#4, 13, 26, 30)</i>
LC.5.MD.A.1b Convert standard measurements of length.	Match representations of equivalent quantities shown by different units of measurement (e.g., 12 inches to 1 foot).	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 17; Measurement EECs - p. 10; LEAP Connect Grade 5 Math Practice Test - (#10, 12, 21)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.5.MD.A.1d Solve problems involving conversions of standard measurement units when finding area, volume, time lapse, or mass.	Identify elapsed time (i.e., hours).	<i>Measurement EECs - p. 10; LEAP Connect Grade 5 Math Practice Test - (#7, 24, 27)</i>
LC.5.G.A.1c Use ordered pairs to graph given points.	Identify the x- and y-axis; or identify the axis on which a point lies.	<i>Geometry EECs - p. 29; LEAP Connect Grade 5 Math Practice Test - (#3, 19, 28, 34)</i>

Mathematics Grade 6

The following is a list of grade-specific mathematics resources.

- [Grade 6 Math Connectors](#)
- [Data and Probability EECs](#)
- [Geometry EECs](#)
- [Measurement EECs](#)
- [Number Operations Fractions EECs](#)
- [Number Operations Real Numbers EECs](#)
- [Patterns Relations and Functions EECs](#)
- [Case Study - Carlos - Grade 6 - Mathematics](#)
- [LEAP Connect Assessment Guide for Grades 6-8](#)
- [Procedures for Administering the Practice Tests to Students Who are Visually Impaired Deaf or Deaf-Blind](#)
- [LEAP Connect Grade 6 Math Directions for Practice Test Administration](#)
- [LEAP Connect Grade 6 Math Graphics Files](#)
- [LEAP Connect Grade 6 Math Practice Test Answer Key](#)
- [LEAP Connect Grade 6 Math Practice Test Reference Materials](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.6.RP.A.1c Describe the ratio relationship between two quantities for a given situation.	Match/identify a simple ratio (1:X) to the relationship between two quantities.	<i>Patterns, Relations, and Functions EECs - p. 15; LEAP Connect Grade 6 Math Practice Test - (#11, 20, 31)</i>
LC.6.RP.A.3d Solve one step real world measurement problems involving unit rates with ratios of whole numbers when given the unit rate (3 inches of snow falls per hour, how much in 6 hours).	Identify a unit rate.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 14; Measurement EECs - p. 14; LEAP Connect Grade 6 Math Practice Test - (#5, 15, 21, 33)</i>
LC.6.RP.A.3e Calculate a percent of a quantity as rate per 100.	State a relationship to a quantity out of 100.	<i>Number Operation Fractions EECs - p. 12; LEAP Connect Grade 6 Math Practice Test - (#1, 8, 24, 28)</i>
LC.6.NS.B.3 Solve one step, addition, subtraction, multiplication, or division problems with fractions or decimals.	Identify subtraction or addition of one-half from/to a whole object.	<i>Number Operation Fractions EECs - p. 44; LEAP Connect Grade 6 Math Practice Test - (#4, 13, 34, 35)</i>
LC.6.NS.C.5 Select the appropriate meaning of a negative number in a real world situation.	Select the appropriate representation of more than or less than 0 in a real-world situation.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 14; Number Operations Real Numbers EECs - p. 34; LEAP Connect Grade 6 Math Practice Test - (#2,17,25,27)</i>
LC.6.NS.C.6d Locate positive and negative numbers on a number line.	Identify a number on a number line as either positive or negative.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 14; Number Operations Real Numbers EECs - p. 34; LEAP Connect Grade 6 Math Practice Test - (#9, 19, 30)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.6.EE.B.7a Solve problems or word problems using up to three digit numbers and any of the four operations.	Identify a model representing division.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 15; Number Operations Real Numbers EECs - p. 52; LEAP Connect Grade 6 Math Practice Test - (#14, 18, 29)</i>
LC.6.EE.B.7b Solve real world, single step linear equations.	Identify the quantity represented by the variable.	<i>Patterns, Relations, and Functions EECs - p. 13; LEAP Connect Grade 6 Math Practice Test - (#3, 6, 26, 32)</i>
LC.6.G.A.1c Find area of quadrilaterals.	Use tiling to measure the area of a rectangle.	<i>Patterns, Relations, and Functions EECs - p. 35; Geometry EECs - p. 30; LEAP Connect Grade 6 Math Practice Test - (#10, 16, 22)</i>
LC.6.SP.B.5d Select statement that matches mean, mode, and spread of data for 1 measure of central tendency for a given data set.	Identify the highest and lowest value in a data set given a number line and matching symbols; Identify the representation (Plastic snap cubes, wiki sticks) of the mode; Use concrete materials to produce the mean (leveled plastic snap cubes).	<i>Geometry EECs - p. 35; Data and Probability EECs - p. 9; LEAP Connect Grade 6 Math Practice Test - (#7, 12, 23)</i>

Mathematics Grade 7

The following is a list of grade-specific mathematics resources.

- [Grade 7 Math Connectors](#)
- [Data and Probability EECs](#)
- [Geometry EECs](#)
- [Measurement EECs](#)
- [Number Operations Fractions EECs](#)
- [Number Operations Real Numbers EECs](#)
- [Patterns Relations and Functions EECs](#)
- [Case Study - Christine - Grade 7 - Mathematics](#)
- [LEAP Connect Assessment Guide for Grades 6-8](#)
- [LEAP Connect Grade 7 Math Directions for Practice Test Administration](#)
- [LEAP Connect Grade 7 Math Graphics Files](#)
- [LEAP Connect Grade 7 Math Practice Test Answer Key](#)
- [LEAP Connect Grade 7 Math Practice Test Reference Materials](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.7.RP.A.2a Identify the proportional relationship between two quantities.	Recognize the constancy of one object to its parts (i.e., one fact, two eyes).	<i>Number Operations Fractions EECs - p. 34; LEAP Connect Grade 7 Math Practice Test - (#6, 12, 20)</i>
LC.7.RP.A.2b Determine if two quantities are in a proportional relationship using a table of equivalent ratios or points graphed on a coordinate plane.	Use a table to recognize the quantity of two entries, without counting, to determine which is relatively larger.	<i>Number Operations Fractions EECs - p. 37; LEAP Connect Grade 7 Math Practice Test - (#2, 19, 25)</i>
LC.7.RP.A.3d Solve word problems involving ratios.	Match a given ratio to a model.	<i>Number Operations Fractions EECs - p. 48; LEAP Connect Grade 7 Math Practice Test - (#8, 14, 26, 34)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.7.RP.A.3e Use proportional relationships to solve multistep percent problems.	Identify how one variable changes in relation to another variable in a directly proportional relationship (e.g., $a/b = c/d$, if a increases, what will happen to c ?).	<i>Patterns, Relations, and Functions EECs - p. 20; LEAP Connect Grade 7 Math Practice Test - (#10, 18, 22, 29)</i>
LC.7.NS.A.2a Solve multiplication problems with positive/negative numbers.	Create an array of objects for the mathematical equation and match answer symbol (+ or -) following multiplication rules for an equation.	<i>Number Operations Real Numbers EECs - p. 43; LEAP Connect Grade 7 Math Practice Test - (#13, 17, 27)</i>
LC.7.NS.A.2b Solve division problems with positive/negative numbers.	Create an array of objects for the mathematical equation and match answer symbol (+ or -) following division rules for an equation.	<i>LEAP Connect Grade 7 Math Practice Test - (#4, 31, 33)</i>
LC.7.EE.B.4c Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	Record/replace a variable in an equation with a fact from a story on a graphic organizer.	<i>Patterns, Relations, and Functions EECs - p. 18; LEAP Connect Grade 7 Math Practice Test - (#5, 15, 21)</i>
LC.7.G.B.4 Apply formula to measure area and circumference of circles.	Recognize the area of a circle and the circumference when shown a graphic representation.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 15; Measurement EECs - p. 16; LEAP Connect Grade 7 Math Practice Test - (#7, 11, 24)</i>
LC.7.G.B.6b Find the surface area of three-dimensional figures using nets of rectangles or triangles.	Identify representations of surface area.	<i>Case Study Grade 7 - p. 1; Patterns, Relations, and Functions EECs - p. 37; Geometry EECs - p. 34; LEAP Connect Grade 7 Math Practice Test - (#1, 16, 28, 32)</i>
LC.7.SP.B.4b Analyze graphs to determine or select appropriate comparative inferences about two samples or populations.	Interpret information from simple graphs (e.g., interpret a bar graph using the understanding that the taller column on a graph has a higher frequency, the shorter column on a graph has a lower frequency).	<i>Data and Probability EECs - p. 11; LEAP Connect Grade 7 Math Practice Test - (#2, 19, 25); LEAP Connect Grade 7 Math Practice Test - (#3, 9, 23, 30)</i>

Mathematics Grade 8

The following is a list of grade-specific mathematics resources.

- [Grade 8 Math Connectors](#)
- [Data and Probability EECs](#)
- [Geometry EECs](#)
- [Measurement EECs](#)
- [Patterns Relations and Functions EECs](#)
- [LEAP Connect Assessment Guide for Grades 6-8](#)
- [LEAP Connect Mathematics Sample CR Webinar](#) (slides)
- [LEAP Connect Sample Math CR Directions for Administration](#)
- [LEAP Connect Sample Math CR Reference Materials](#)
- [Procedures for Administering the Practice Tests to Students Who are Visually Impaired Deaf or Deaf-Blind](#)
- [LEAP Connect Grade 8 Math Directions for Practice Test Administration](#)
- [LEAP Connect Grade 8 Math Graphics Files](#)
- [LEAP Connect Grade 8 Math Practice Test Answer Key](#)
- [LEAP Connect Grade 8 Math Practice Test Reference Materials](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.8.NS.A.2 Use approximations of irrational numbers to locate them on a number line.	Recognize how values/numbers can lie between whole number values on a number line.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 16; LEAP Connect Math Grade 8 Practice Test - (#7, 18, 22, 30)</i>
LC.8.EE.B.5 Represent proportional relationships on a line graph.	Identify values in a graph representing a proportional relationship.	<i>Patterns, Relations, and Functions EECs - p. 24; LEAP Connect Math Grade 8 Practice Test - (#2, 11, 34)</i>
LC.8.EE.C.7 Solve linear equations with 1 variable.	Use balance scales to solve single-step equations.	<i>LEAP Connect Math Grade 8 Practice Test - (#6, 17, 26)</i>
LC.8.F.B.4 Identify the rate of change (slope) and initial value (y-intercept) from graphs.	Indicate the point on a line that crosses the y-axis.	<i>Patterns, Relations, and Functions EECs - p. 26; LEAP Connect Math Grade 8 Practice Test - (#5, 16, 29)</i>
LC.8.F.B.5c Describe or select the relationship between the two quantities given a line graph of a situation.	Identify data shown in a line graph.	<i>LEAP Connect Math Grade 8 Practice Test - (#9, 14, 23, 32)</i>
LC.8.G.A.2 Recognize congruent and similar figures.	Demonstrate the concept of congruent and similar (e.g., match examples of congruent shapes, match examples of similar shapes).	<i>Patterns, Relations, and Functions EECs - p. 41; Geometry EECs - p. 39; LEAP Connect Math Grade 8 Practice Test - (#10, 15, 33)</i>
LC.8.G.A.4b Given two similar two-dimensional figures, show or describe a sequence that exhibits the similarity between them.	Demonstrate the concept of congruent and similar (e.g., match examples of congruent shapes, match examples of similar shapes).	<i>LEAP Connect Math Grade 8 Practice Test - (#1, 19, 24, 27)</i>
LC.8.G.C.9 Apply the formula to find the volume of 3-dimensional shapes (i.e., cubes, spheres, and cylinders).	Identify attributes of a 3-dimensional shape.	<i>Measurement EECs - p. 18; LEAP Connect Math Grade 8 Practice Test - (#4, 13, 25, 31)</i>
LC.8.SP.A.1a Graph bivariate data using scatter plots and identify possible associations between the variables.	Locate points on the x-axis and y-axis of an adapted grid (not necessarily numeric).	<i>Data and Probability EECs - p. 13; LEAP Connect Math Grade 8 Practice Test - (#12, 20, 21, 35)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.8.SP.A.1c Analyze displays of bivariate data to develop or select appropriate claims about those data.	Interpret data presented in graphs to identify associations between variables.	<i>LEAP Connect Math Grade 8 Practice Test - (#3, 8, 28)</i>

Mathematics High School

The following is a list of grade-specific mathematics resources.

- [Algebra I Connectors](#)
- [Geometry Connectors](#)
- [Data and Probability EECs](#)
- [Measurement EECs](#)
- [Patterns Relations and Functions EECs](#)
- [Case Study - Liz Grade 9 - Mathematics](#)
- [LEAP Connect Assessment Guide for High School](#)
- [LEAP Connect High School Math Directions for Practice Test Administration](#)
- [LEAP Connect High School Math Graphics Files](#)
- [LEAP Connect High School Math Practice Test Answer Key](#)
- [LEAP Connect High School Math Practice Test Reference Materials](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC.A1: N-Q.A.1b Solve real-world problems involving units of measurement.	Solve real-world measurement problems that require use of a table.	<i>LEAP Connect Assessment Guide High School - p. 11; Measurement - p. 19; LEAP Connect High School Math Practice Test - (#4, 7, 20, 32)</i>
LC.A1: A-CED.A.1 Translate a real-world problem into a one variable linear equation.	Match an equation with one variable to the real-world context.	<i>LEAP Connect Assessment Guide High School - p. 12; Case Study - p. 1; Patterns, Relations, and Functions EECs - p. 28; LEAP Connect High School Math Practice Test - (#12, 21, 23, 27, 31, 35)</i>
LC.A1: A-CED.A.4 Solve multi-variable formulas or literal equations, for a specific variable.	Identify the unknown quantity when given an equation.	<i>Patterns, Relations, and Functions EECs - p. 18; LEAP Connect High School Math Practice Test - (#8, 11, 13, 17, 18, 25)</i>
LC.A1: A-REI.D.10 Understand that all solutions to an equation in two variables are contained on the graph of that equation.	Identify the coordinates of a point on a line graph which represents a solution to an equation.	<i>Patterns, Relations, and Functions EECs - p. 24; Data and Probability EECs - p. 14, 15; LEAP Connect High School Math Practice Test - (#1, 9, 10, 15, 30, 34)</i>
LC.GM: G-SRT.B.5a Use definitions to demonstrate congruency and similarity in figures.	Identify the right angle within a given triangle. Identify sides and/or hypotenuse of a right triangle.	<i>Patterns, Relations, and Functions - p. 43; LEAP Connect High School Math Practice Test - (#3, 6, 19)</i>
LC.A1: S-ID.A.2a Use descriptive stats; range, median, mode, mean, outliers/gaps to describe the data set.	Identify the highest and lowest value in a data set given a number line and matching symbols (concept of range).	<i>LEAP Connect Assessment Guide High School - p. 11; Data and Probability EECs - p. 17, 18; LEAP Connect High School Math Practice Test - (#5, 16, 28)</i>
LC.A1: S-ID.C.7 Interpret the rate of change using graphical representations.	Describe the rate of change qualitatively (e.g., steep = rapid change).	<i>Patterns, Relations, and Functions - p. 26; LEAP Connect High School Math Practice Test - (#2, 14, 22, 24, 29, 33)</i>

Science

Science Component Cards

The Science Component Cards are available to assist educators with individualizing instruction for students with significant disabilities both in inclusive and self-contained environments. These cards promote understanding of how students move toward the Louisiana Student Standards. Using the Performance Expectation cards for the LSS for Science as a base, the additional green text shows the multi-dimensional nature of the LCs in relation to the Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts.

Complexity Levels for Science

The LEAP Connect assessments approach science content at varying levels of complexity so as to provide the most opportunities for students to demonstrate what they know and are able to do. Item developers use the EU to allow students access to the test at Tier 1 Complexity. Complexity of assessment content increases from Tiers 2 to 4. The following table describes science complexity at each Tier level.

Tier 1	Tier 2	Tier 3	Tier 4
<ul style="list-style-type: none"> statement reminding students what the item is about simplified language and/or visual representations short answer options often supported with graphics 	<ul style="list-style-type: none"> statement reminding students what the item is about simplified language and/or visual representations (e.g., line drawings) provides definitions of scientific terms distinct answer options may contain graphics support in answer options 	<ul style="list-style-type: none"> statement reminding students what the item is about limited use of line drawings may include charts, tables, maps, graphs, or other visual representations may include models do not contain graphics support unless necessary 	<ul style="list-style-type: none"> statement reminding students what the item is about may include charts, tables, maps, graphs, or other visual representations may require inference or prediction distractors may include misunderstandings of the concept or skill

Achievement Level Descriptors for Science

LEAP Connect scale scores are used to assign a student’s achievement in science in one of four levels – Above Goal, At Goal, Near Goal, Below Goal. [Achievement Level Descriptors \(ALDs\) for science](#) further describe the knowledge, skills, and abilities that students generally demonstrate at each performance level dependent on task complexity – low, moderate, high.

Task Complexity Descriptions

- Low task complexity:** Brief scenario with simple relationships and concrete concepts using common scientific terms and practices when necessary (below to near goal)
- Moderate task complexity:** Clear scenario with multiple relationships and simple concepts using various scientific terms and practices when necessary (near to at goal)
- High task complexity:** Detailed scenario with complex relationships and abstract concepts using various scientific terms, practices, and relevant specific core ideas (at to above goal)

Science Prioritized Connectors, Essential Understandings, and Resources by Grade

Science Grade 4

The following is a list of grade-specific science resources.

- [Science Connectors 4th grade](#)
- [Science Connectors Component Cards Grade 4](#)
- [Case Study - Jazmine - Grade 4 - Science](#)
- [LEAP Connect Assessment Guide for Grades 3-5](#)
- [LEAP Connect Grade 4 Science Directions for Practice Test Administration](#)
- [LEAP Connect Grade 4 Science Graphics Files](#)
- [LEAP Connect Grade 4 Science Practice Test Answer Key](#)
- [LEAP Connect Grade 4 Science Practice Test Reference Materials](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC-4-PS3-1b Demonstrate that objects moving faster possess more energy than objects moving slower.	Identify factors that influence the motion of an object.	<i>Grade 4 Science Component Card - p. 1; LEAP Connect Science Grade 4 Practice Test - (#1, 15, 19)</i>
LC-4-PS3-3a Identify the change in energy or the change in objects' motions when objects collide (e.g., speeds as objects interact, direction).	Identify the fastest or slowest moving object when given the speed at which it is travelling.	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 18; Grade 4 Science Component Card - p. 4; LEAP Connect Science Grade 4 Practice Test - (#4, 5, 18)</i>
LC-4-PS3-4a Relate an example that demonstrates that energy can be converted from one form to another form (e.g., electric circuits that convert electrical energy into light, motion, sound or heat).	Identify the evidence of energy (e.g., moving ball, lighted light bulb).	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 21; Grade 4 Science Component Card - p. 6; LEAP Connect Science Grade 4 Practice Test - (#2, 3, 17)</i>
LC-4-PS4-1b Identify relationships involving wave amplitude, wavelength, and the motion of an object (e.g., when the amplitude increases, the object moves more).	Understand that waves cause an object to move.	<i>Grade 4 Science Component Card - p. 8; LEAP Connect Science Grade 4 Practice Test - (#16, 23, 24)</i>
LC-4-ESS1-1a Identify rock formations that show how the Earth's surface has changed over time (e.g., change following earthquakes).	Recognize that rocks and soil can be moved by wind, water, and ice.	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 22; Grade 4 Science Component Card - p. 15; LEAP Connect Science Grade 4 Practice Test - (#10, 12, 26)</i>
LC-4-ESS2-1b Identify how living things affect the shape of the land.	Identify examples of things humans do to affect the shape of the land (e.g., Diverting a river allows erosion to take place in an area that otherwise may not have experienced erosion).	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 18; Grade 4 Science Component Card - p. 16; LEAP Connect Science Grade 4 Practice Test - (#13, 27, 28)</i>
LC-4-ESS2-2a Use maps to locate different land and water features of Earth.	Recognize a description of a land or water feature of Earth.	<i>Grade 4 Science Component Card - p. 18; LEAP Connect Science Grade 4 Practice Test - (#11, 29, 30)</i>
LC-4-ESS3-2a Describe solutions to reduce the impact of a natural Earth process (e.g., earthquake, flood, volcanic activity) on humans.	Recognize that different types of hazards result from natural Earth processes (e.g., earthquakes, tsunamis, volcanic eruptions).	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 20; Grade 4 Science Component Card - p. 22; LEAP Connect Science Grade 4 Practice Test - (#9, 14, 25)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC-4-LS1-1a Identify external macroscopic structures (e.g., bird beaks, eyes, feathers, roots, needles on a pine tree) that support growth, survival, behavior, and reproduction of organisms.	Match an external structure of an animal to its primary function (e.g., fins for swimming in aquatic environments).	<i>Case Study - p. 2; Grade 4 Science Component Card - p. 11; LEAP Connect Science Grade 4 Practice Test - (#6, 7, 21)</i>
LC-4-LS1-2b Identify how animals use their sense receptors to respond to different types of information (e.g., sound, light, odor, temperature) in their surroundings with behaviors that help them survive.	Match the sense receptor (body part) of an animal to its function (e.g., used to smell, see, hear, or touch).	<i>LEAP Connect Assessment Guide Grades 3-5 - p. 22; Grade 4 Science Component Card - p. 13; LEAP Connect Science Grade 4 Practice Test - (#8, 20, 22)</i>

Science Grade 8

The following is a list of grade-specific science resources.

- [Science Connectors 8th grade](#)
- [Science Connectors Component Cards Grade 8](#)
- [LEAP Connect Assessment Guide for Grades 6-8](#)
- [LEAP Connect Grade 8 Science Directions for Practice Test Administration](#)
- [LEAP Connect Grade 8 Science Graphics Files](#)
- [LEAP Connect Grade 8 Science Practice Test Answer Key](#)
- [LEAP Connect Grade 8 Science Practice Test Reference Materials](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC-8-MS-PS1-3a Compare and contrast characteristics of natural and synthetic materials (e.g., fibers) from provided information (e.g., text, media, visual displays, data).	Classify material as a natural resource or as a synthetic material.	<i>Grade 8 Science Component Card - p. 3; LEAP Connect Science Grade 8 Practice Test - (#1, 3, 20)</i>
LC-8-MS-PS1-6b Identify a way to test or modify a device that either releases or absorbs thermal energy by chemical processes.	Identify examples of chemical changes compared to physical changes.	<i>Grade 8 Science Component Card - p. 5; LEAP Connect Science Grade 8 Practice Test - (#2, 5, 17)</i>
LC-8-MS-PS3-3a Use information (e.g., graph, model) to identify a device (e.g., foam cup, insulated box) that either minimizes or maximizes thermal energy transfer (e.g., keeping liquids hot or cold).	Identify objects used to minimize thermal energy transfer (e.g., gloves).	<i>Grade 8 Science Component Card - p. 7; LEAP Connect Science Grade 8 Practice Test - (#4, 16, 18)</i>
LC-8-MS-ESS1-4a Sequence the relative order of events from Earth's history shown by rock strata and patterns of layering.	Identify older fossils as being found in deeper, older rock layers.	<i>Grade 8 Science Component Card - p. 11; LEAP Connect Science Grade 8 Practice Test - (#14, 29, 30)</i>
LC-8-MS-ESS2-1a Identify relationships between components in a model showing the cycling of energy flows and matter within and among Earth's systems, including the sun and Earth's interior as primary energy sources.	Identify types of Earth materials that can be located at the Earth's surface (exterior) and/or its interior.	<i>Grade 8 Science Component Card - p. 13; LEAP Connect Science Grade 8 Practice Test - (#11, 12, 15)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC-8-MS-ESS3-1a Identify explanations of the uneven distributions of Earth’s minerals, energy, and groundwater resources due to past and current geoscience processes or by removal of resources.	Recognize that there are different types of Earth resources (e.g., mineral, energy, and groundwater) distributed throughout the Earth (i.e., use a map showing the current global distribution of mineral, energy, and groundwater).	<i>Grade 8 Science Component Card - p. 18; LEAP Connect Science Grade 8 Practice Test - (#13, 27, 28)</i>
LC-8-MS-LS1-5a Identify a scientific explanation for how environmental factors (e.g., availability of light, space, water, size of habitat) affect the growth of animals and plants.	Identify a reason why a plant does not grow.	<i>Grade 8 Science Component Card - p. 25; LEAP Connect Science Grade 8 Practice Test - (#10, 20, 23, 25)</i>
LC-8-MS-LS3-1a Use a model to explain how genetic variations in specific traits may occur as organisms pass on their genetic material from one generation to the next, along with small changes.	Identify that a gene can be passed from a parent to an offspring.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 18; Grade 8 Science Component Card - p. 27; LEAP Connect Science Grade 8 Practice Test - (#9)</i>
LC-8-MS-LS4-2a Recognize that similarities and differences in external structures can be used to infer evolutionary relationships between living and fossil organisms.	Identify relationships based on external characteristics (e.g., reptiles vs. nonreptiles).	<i>Grade 8 Science Component Card - p. 30; LEAP Connect Science Grade 8 Practice Test - (#7, 22)</i>
LC-8-MS-LS4-3a Identify patterns (i.e., pictorial displays, representations, data) in the embryological development as evidence of relationships among species.	Recognize, using graphics, that the way two animals are similar in the way each develops as an embryo, the more closely they are related.	<i>LEAP Connect Assessment Guide Grades 6-8 - p. 19; Grade 8 Science Component Card - p. 32; LEAP Connect Science Grade 8 Practice Test - (#6, 8, 21)</i>

Science High School

The following is a list of grade-specific science resources.

- [Science Connectors Life Science](#)
- [Science Connectors Component Cards Life Science](#)
- [Case Study - Seth - Grade 10 - Science](#)
- [LEAP Connect Assessment Guide for High School](#)
- [LEAP Connect High School Science Directions for Practice Test Administration](#)
- [LEAP Connect High School Science Graphics Files](#)
- [LEAP Connect High School Science Practice Test Answer Key](#)
- [LEAP Connect High School Science Practice Test Reference Materials](#)

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC-HS-LS1-2a Using model(s), identify that different systems of the body carry out essential functions (e.g., digestive system, respiratory system, circulatory system, nervous system).	Identify which organ works for a specific function.	<i>LEAP Connect Assessment Guide HS - p. 13; HS Science Component Card - p. 3; LEAP Connect HS Science Practice Test - (#1, 2, 4, 21)</i>

Prioritized Connector	Corresponding Essential Understanding	Associated Resources
LC-HS-LS1-3a Identify how different organisms react (e.g., heart rate, body temperature) to changes in their external environment.	Compare changes that occur to an organism before and after exercise (e.g., heartbeat rate, breathing rate).	<i>HS Science Component Card - p. 5; LEAP Connect HS Science Practice Test - (#3, 5, 6)</i>
LC-HS-LS1-8c Identify ways to protect against infectious diseases to maintain a body's health (e.g., eat nutritious food, washing hands, rest, exercise, etc.).	Identify various causes of infectious human diseases.	<i>LEAP Connect Assessment Guide HS - p. 19; HS Science Component Card - p. 15; LEAP Connect HS Science Practice Test - (#16, 17)</i>
LC-HS-LS1-8d Identify treatments and/or prevention of viral and/or bacterial infections (e.g., antibiotics and vaccines).	Recognize that infectious diseases can be spread among organisms.	<i>LEAP Connect Assessment Guide HS - p. 14; HS Science Component Card - p. 15; LEAP Connect HS Science Practice Test - (#18, 19, 20)</i>
LC-HS-LS2-6a Use evidence to identify how modest biological or physical changes versus extreme changes affect stability and change (e.g., number and types of organisms) in ecosystems.	Identify data related to the number of species in an ecosystem that represent stable conditions over long periods of time as opposed to extreme changes.	<i>LEAP Connect Assessment Guide HS - p. 13; HS Science Component Card - p. 21; LEAP Connect HS Science Practice Test - (#7, 8, 24)</i>
LC-HS-LS2-7a Describe how people can help protect the Earth's environment and biodiversity (e.g., preserving ecosystems) and how a human activity would threaten Earth's environment and biodiversity (e.g., pollution, damaging habitats, over hunting).	Identify the need for the protection of habitats (e.g., organisms depend on having specific needs met by a particular habitat).	<i>LEAP Connect Assessment Guide HS - p. 15; HS Science Component Card - p. 23; LEAP Connect HS Science Practice Test - (#9, 22, 23)</i>
LC-HS-LS3-2a Identify a model showing evidence that parents and offspring may have different traits.	Identify that a trait can be passed from parent to offspring.	<i>LEAP Connect Assessment Guide HS - p. 16; HS Science Component Card - p. 27; LEAP Connect HS Science Practice Test - (#10, 25, 26)</i>
LC-HS-LS3-3a Calculate the probability (e.g., two out of four) of a particular trait in an offspring based on a completed Punnett square.	Identify the dominant trait in a given allele pair (i.e., trait shown in a gene pair represented by a capital letter).	<i>LEAP Connect Assessment Guide HS - p. 17; HS Science Component Card - p. 29; LEAP Connect HS Science Practice Test - (#11, 12, 13)</i>
LC-HS-LS4-2b Recognize that different individuals have specific traits that give advantages (e.g., survive and reproduce at higher rates) over other individuals in the species.	Recognize traits associated with individual members in a species.	<i>LEAP Connect Assessment Guide HS - p. 16; HS Science Component Card - p. 33; LEAP Connect HS Science Practice Test - (#14, 27, 28)</i>
LC-HS-LS4-5a Identify the relationship between naturally occurring or human-induced changes in the environment (e.g., drought, flood, deforestation, fishing, application of fertilizers) and the expression of traits in a species (e.g., peppered moth studies).	Recognize that both naturally occurring and human-induced changes in the environment affect some species.	<i>LEAP Connect Assessment Guide HS - p. 18; Case Study - p. 1; HS Science Component Card - p. 39; LEAP Connect HS Science Practice Test - (#15, 29, 30)</i>