
ELA Example: Stimulus & Item

Read the story, and then answer the questions.

Excerpt from Maria Loves Bugs

by Dawn Burke

Maria set the bug jar beside Edgar. "I found a caterpillar and named it Muncher!" she exclaimed, hurrying off to find her bug journal.

Edgar was making a sandwich. He frowned at the caterpillar in the jar. When a beetle thumped against the glass, Edgar cried out. Heart pounding, he darted outside, dumped the bugs out of the jar, and then returned to his sandwich. The kitchen felt calmer, but now he felt bad.

Soon, Maria entered the kitchen. She immediately noticed her empty bug jar.

"Where are my bugs?" she cried.

"I, I let them go," he said quietly. "They were creepy."

Maria's eyes filled with tears. "I finally found a caterpillar! I wanted to watch it turn into a butterfly."

END OF TEXT

Excerpt from "Maria Loves Bugs" by Dawn Burke, copyright © 2025 by The University of Kansas.

Why does Edgar dump the bugs out of the jar?

- ☐ He wants to set them free.
- ☐ He does not like being around bugs.
- ☐ He is worried that they are unhappy.
- ☐ He thinks the jar is too small for them.

ELA Example: 3rd Grade, Reading Literature PLD

Cluster: **Key Ideas & Details**

Describe and demonstrate understanding of and connection between literary elements, including theme, characters, setting, dialogue, and conflict.

Standard: **RL.3.3**

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

PLDs:

Evidence Statement		
1. The student will analyze literary elements (e.g., characters) within a text.		
Performance Level Descriptors (PLDs)		
Level 2: Basic	Level 3: Proficient	Level 4: Advanced
• Recognize literary elements (e.g., theme, characters, setting, dialogue, conflict). • Explain character elements (e.g., traits, motivations, or feelings). • Identify character actions and how they contribute to the sequence of events.	• Explain literary elements (e.g., theme, characters, setting, dialogue, conflict). • Analyze character elements (e.g., traits, motivations, or feelings). • Explain how a character's actions contribute to the sequence of events.	• Analyze the connections among literary elements (e.g., character and setting). • Compare and contrast how character elements (e.g., traits, motivations, or feelings) differ between characters. • Synthesize how multiple characters' actions contribute to the sequence of events.

Science Example: Stimulus & Item

Freckles in the Family

Elijah lives with his parents and his sister. While Elijah and his father do not have freckles, Elijah's mother and his sister have freckles. Elijah wonders how freckles are inherited and why some people have freckles and others do not. Figure 1 shows Elijah, his parents, and his sister.

Figure 1. Elijah's Family



To investigate, Elijah does research on freckles. He learns that the freckles that his mother and sister have are small, harmless spots on the skin that result from increased melanin production. Elijah discovers that the freckle trait is not dangerous and is associated with certain mutations on the MC1R gene. Individuals with a mutated allele for this gene are likely to develop freckles. Table 1 shows two alleles associated with freckle inheritance.

Table 1. Freckle Inheritance

Trait	Allele
Freckles	F
No freckles	f

Elijah creates a model to show the possible allele combinations for the offspring of his parents. Complete the Punnett square by placing the allele combinations. Allele combinations may be used more than once or not at all.

FF

Ff

ff

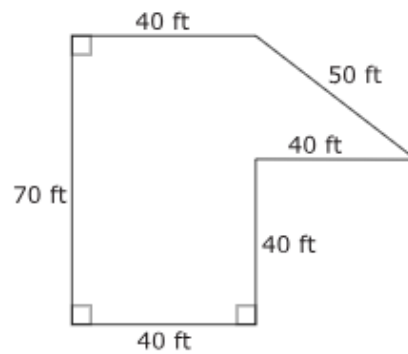
		Elijah's Mother	
		F	f
Elijah's Father	f		
	f		

Science Example: Middle School, Life Science PLD

MS-LS3-2.	Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.	
	Clarification Statement: Emphasis is on using models such as Punnett squares, diagrams, and simulations to describe the cause and effect relationship of gene transmission from parent(s) to offspring and resulting genetic variation.	
Developing and Using Models		
Modeling in 6–8 builds on K–5 experiences and progresses to developing, using, and revising models to describe, test, and predict more abstract phenomena and design systems.		
Develop and use a model to describe phenomena.		
LS1.B: Growth and Development of Organisms		
Organisms reproduce, either sexually or asexually, and transfer their genetic information to their offspring. (secondary)		
LS3.A: Inheritance of Traits		
Variations of inherited traits between parent and offspring arise from genetic differences that result from the subset of chromosomes (and therefore genes) inherited.		
LS3.B: Variation of Traits		
In sexually reproducing organisms, each parent contributes half of the genes acquired (at random) by the offspring. Individuals have two of each chromosome and hence two alleles of each gene, one acquired from each parent. These versions may be identical or may differ from each other.		
Level 2	Level 3	Level 4
Students at level 2 show a basic ability to demonstrate their knowledge and skills such as:	Students at level 3 show a proficient ability to demonstrate their knowledge and skills such as:	Students at level 4 show an advanced ability to demonstrate their knowledge and skills such as:
- Use a given model to identify that sexual reproduction results in more genetic variation than asexual reproduction. - Complete a model to show how genes are passed from parents to offspring and the possible genetic variations of offspring.	Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.	- Revise a model to illustrate what happens if a component of a system (e.g., parent's genes, method of reproduction) changes and how the change affects genetic variation. - Use a model to describe the relationship between the number of chromosomes involved in reproduction and the genetic variation possible in offspring.

Math Example: Stimulus & Item

The diagram shows the dimensions, in feet (ft), of one part of a miniature golf course.



What is the area, in square feet (ft^2), of this part of the golf course?

-
- ☐ 2,200 ft^2
 - ☐ 2,800 ft^2
 - ☐ 3,400 ft^2
 - ☐ 4,000 ft^2

Math Example: 6th grade, Geometry PLD

Standard: 6.G.1

Find the area of all triangles, special quadrilaterals (including parallelograms, kites and trapezoids), and polygons whose edges meet at right angles (rectilinear figure (See Geometry Progression K-6 Pg. 19 Paragraph 4) polygons) by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.

Evidence Statement			
1. The student determines the area of all triangles, special quadrilaterals (including parallelograms, kites, and trapezoids), and polygons whose edges meet at right angles using composition and decomposition in real-world and mathematical problems.			
Performance Level Descriptors (PLDs)			
Level 1 Students at level 1 show a <i>limited</i> ability to demonstrate their knowledge and skills such as:	Level 2 Students at level 2 show a <i>basic</i> ability to demonstrate their knowledge and skills such as:	Level 3 Students at level 3 show a <i>proficient</i> ability to demonstrate their knowledge and skills such as:	Level 4 Students at level 4 show an <i>advanced</i> ability to demonstrate their knowledge and skills such as:
Students should be able to find the area of all triangles and rectangles.	Students should be able to find the area of all triangles, rectangles, parallelograms, and rectilinear polygons by composing and decomposing into rectangles or decomposing into triangles and other shapes.	- Students should be able to find the area of all triangles, special quadrilaterals (including parallelograms, kites, and trapezoids), and rectilinear polygons by composing into rectangles or decomposing into triangles and other shapes. - Students should be able to apply composing and decomposing strategies to find the area of shapes in the context of solving real-world and mathematical problems.	- Students should be able to generate triangles, special quadrilaterals, and rectilinear polygons when given an area for the shape. - Students should be able to find missing side lengths for all triangles, special quadrilaterals, and rectilinear polygons when given the area and other side lengths.

Scenario #1

On a 4th grade math assessment, Luiz uses inequality symbols to correctly compare two decimals to the hundredth place when the decimals have the same number of digits (e.g. $0.76 > 0.67$). He does not explain his answer with appropriate reasoning (e.g. “0.76 is greater because the number is bigger.”).

- Which level describes Luiz’s performance?
 - What next steps should his teacher take?
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Standard: 4.NF.7

Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the relational symbols $>$, $<$, $=$, or $\neq$, and justify the conclusions, (e.g. by using a visual model.).

Evidence Statement			
1. The student compares two decimals to the hundredths place by reasoning about their size using $>$, $<$, $=$, and $\neq$ symbols and visual fraction models.			
Performance Level Descriptors (PLDs)			
Level 1 Students at level 1 show a <i>limited</i> ability to demonstrate their knowledge and skills such as:	Level 2 Students at level 2 show a <i>basic</i> ability to demonstrate their knowledge and skills such as:	Level 3 Students at level 3 show a <i>proficient</i> ability to demonstrate their knowledge and skills such as:	Level 4 Students at level 4 show an <i>advanced</i> ability to demonstrate their knowledge and skills such as:
• Students should be able to compare two decimals to tenths by reasoning about their size and recording the results of comparisons with the relational symbols $>$, $<$, $=$, and $\neq$.	• Students should be able to compare two decimals to hundredths, both with the same number of digits, by reasoning about their size, and record the results of comparisons with the relational symbols $>$, $<$, $=$, and $\neq$.	• Students should be able to compare any two decimals to hundredths by reasoning about their size; explain the comparison; record the results of comparisons with the relational symbols $>$, $<$, $=$, and $\neq$; and justify the conclusions.	• Students should be able to compare two decimals to thousandths by reasoning about their size; explain the comparison; record the results of comparisons with the relational symbols $>$, $<$, $=$, and $\neq$; and justify the conclusions.

Scenario #2

On a 4th grade ELA task, Marta accurately describes three differences between a journal entry written by a 19th century Kansas homesteader and a 2024 article explaining the government's interests that lead to the Homestead Act. (e.g. *"The journal entry is a firsthand account because it was written by a Kansas homesteader who experienced the events. The 2024 article is a secondhand account because it explains the Homestead Act using information from sources. Also, the journal entry shares personal feelings about the experience, while the article gives facts about the government's reasons behind the law."*)

- Which level describes Marta's performance?
 - What next steps should her teacher take?
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Standard: RI.4.6

Compare and contrast a first- and secondhand account of the same event or topic; describe the differences in focus and the information provided.

PLDs:

Evidence Statement		
1. The student will analyze first- and secondhand accounts of the same topic or events.		
Performance Level Descriptors (PLDs)		
Level 2: Basic	Level 3: Proficient	Level 4: Advanced
• Explain first- and secondhand accounts of the same topic or events. • Identify differences in focus in the information provided.	• Analyze first- and secondhand accounts of the same topic or events. • Describe the differences in focus and information provided between first- and secondhand accounts of the same topic or events.	• Compare and contrast information from first- and secondhand accounts of the same topic or events. • Analyze the differences in focus and information provided between first- and secondhand accounts of the same topic or events.

Scenario #3

After a 5th grade science investigation, a student group identifies several properties of baking soda and describes the physical changes when baking soda mixes with different substances, including water, salt, and vinegar. The group uses a common misconception to explain whether a new substance forms. (e.g. *A new substance forms when baking soda is combined with each of the other substances. This is because mixing two substances together always creates a new substance.*)

- Which level describes the group's performance?

 - What next steps should the group's teacher take?
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5-PS1-4.	Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	
Planning and Carrying Out Investigations		
Planning and carrying out investigations to answer questions or test solutions to problems in 3–5 builds on K–2 experiences and progresses to include investigations that control variables and provide evidence to support explanations or design solutions.		
• Conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered.		
PS1.B: Chemical Reactions		
• When two or more different substances are mixed, a new substance with different properties may be formed.		
Level 2 Students at level 2 show a <i>basic</i> ability to demonstrate their knowledge and skills such as:	Level 3 Students at level 3 show a <i>proficient</i> ability to demonstrate their knowledge and skills such as:	Level 4 Students at level 4 show an <i>advanced</i> ability to demonstrate their knowledge and skills such as:
• Use observations as evidence to show how properties have changed.	• Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	• Evaluate an investigation for the inclusion of elements that support the production of sufficient evidence to determine if mixing two or more substances results in