

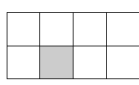



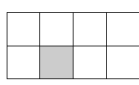



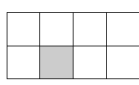

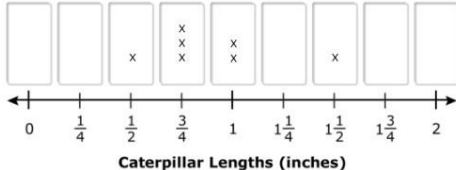
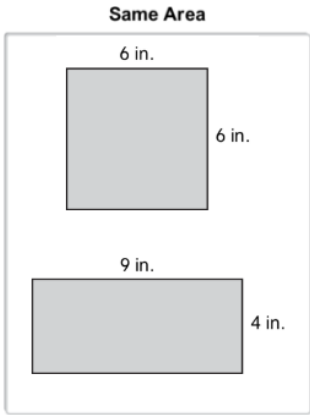


2015-16 ISTEP+
Online Experience
Answer Keys

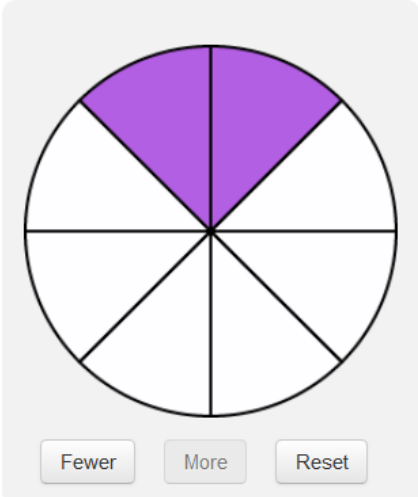

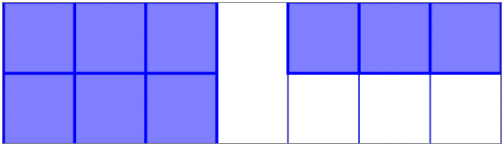
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Grades 3-4 Section 1: Mathematics

Question	Indiana Academic Standard	Correct Response																									
1	3.G.4: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$).	<table><tr><td></td><td></td><td></td><td></td></tr><tr><td>$\frac{1}{4}$</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>$\frac{1}{6}$</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>$\frac{1}{2}$</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>$\frac{1}{4}$</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></table>					$\frac{1}{4}$	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	$\frac{1}{6}$	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	$\frac{1}{2}$	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	$\frac{1}{4}$	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
																											
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$\frac{1}{4}$	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																								
2	3.M.6: Multiply side lengths to find areas of rectangles with whole-number side lengths to solve real-world problems and other mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	B, C																									
3	3.AT.2: Solve real-world problems involving whole number multiplication and division within 100 in situations involving equal groups, arrays, and measurement quantities (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem).	18																									
4	3.DA.2: Generate measurement data by measuring lengths with rulers to the nearest quarter of an inch. Display the data by making a line plot, where the horizontal scale is marked off in appropriate units, such as whole numbers, halves, or quarters.																										
5	3.M.5: Find the area of a rectangle with whole-number side lengths by modeling with unit squares, and show that the area is the same as would be found by multiplying the side lengths. Identify and draw rectangles with the same perimeter and different areas or with the same area and different perimeters.	Part A: 6 Part B: 																									
6	4.NS.8: Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number.	<table><tr><td></td><td>18</td><td>34</td><td>45</td><td>56</td></tr><tr><td>Which number is a multiple of 5?</td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr><tr><td>Which number is a multiple of 6?</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td></tr><tr><td>Which number is a multiple of 7?</td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr><tr><td>Which number is a multiple of 8?</td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr></table>		18	34	45	56	Which number is a multiple of 5?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Which number is a multiple of 6?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Which number is a multiple of 7?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Which number is a multiple of 8?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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Which number is a multiple of 7?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>																							
Which number is a multiple of 8?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>																							

Question	Indiana Academic Standard	Correct Response
7	4.C.2: Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Describe the strategy and explain the reasoning.	448 OR 448.00
8	4.G.1: Identify, describe, and draw parallelograms, rhombuses, and trapezoids using appropriate tools (e.g., ruler, straightedge and technology).	a point plotted at (1, 4) OR a point plotted at (7, 4)
9	4.NS.2: Compare two whole numbers up to 1,000,000 using >, =, and < symbols.	Part A: <div>706,008 < 710,080</div> <div>710,080 > 710,008</div> <div>706,008 < 710,008</div> Part B: A, C and D
10	4.M.4: Apply the area and perimeter formulas for rectangles to solve real-world problems and other mathematical problems. Recognize area as additive and find the area of complex shapes composed of rectangles by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts; apply this technique to solve real-world problems and other mathematical problems.	Part A: <div>3 × 9 + 5 × 6</div> OR <div>5 × 6 + 3 × 9</div> OR <div>3 × 3 + 6 × 8</div> OR <div>6 × 8 + 3 × 3</div> Part B: 57

Question	Indiana Academic Standard	Correct Response
11	3.NS.7: Recognize and generate simple equivalent fractions (e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{4}{6} = \frac{2}{3}$). Explain why the fractions are equivalent (e.g., by using a visual fraction model).	<p>The student correctly shades the number of sections to show an equivalent fraction to $\frac{1}{4}$.</p> 
12	3.DA.2: Generate measurement data by measuring lengths with rulers to the nearest quarter of an inch. Display the data by making a line plot, where the horizontal scale is marked off in appropriate units, such as whole numbers, halves, or quarters.	
13	4.NS.3: Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. Name and write mixed numbers using objects or pictures. Name and write mixed numbers as improper fractions using objects or pictures.	
14	4.AT.5: Solve real-world problems involving addition and subtraction of fractions referring to the same whole and having common denominators (e.g., by using visual fraction models and equations to represent the problem).	<p>Part A: The student explains that they added $\frac{3}{10}$ and $\frac{5}{10}$ to get $\frac{8}{10}$ or equivalent as the answer.</p> <p>Part B: The student explains that they subtracted $\frac{8}{10}$ from $\frac{10}{10}$ to get $\frac{2}{10}$ or equivalent as the answer.</p>

Grades 3-4 Section 2: English/Language Arts

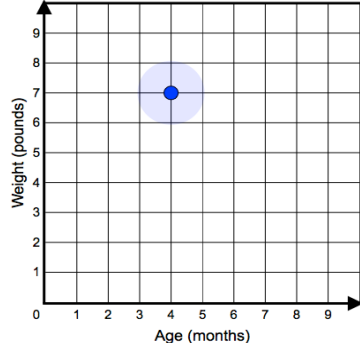
Question	Indiana Academic Standard	Correct Response															
1	3.RN.2.2: Determine the main idea of a text; recount the key details and explain how they support the main idea.	Part A: D Part B: C															
2	3.RN.2.3: Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in processes or procedures in a text, using words such as first, next, finally, because, problem, solution, same, and different.	Step 1: ... we went to a geocaching Web site to register and find the caches ... Step 2: Once we had the coordinates, we used the phone app to drive to the location ... Step 3: We looked everywhere. Step 4: ... close the cache and put it back where we found it.															
3	3.RN.2.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	B															
4	3.RN.4.1: Distinguish between fact and opinion; explain how an author uses reasons and facts to support specific points in a text.	<table border="1"> <thead> <tr> <th></th><th>Yes</th><th>No</th></tr> </thead> <tbody> <tr> <td>It's a fun game played by people all over the world.</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr> <tr> <td>The first time I went geocaching was with my mom when I was in first grade.</td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr> <tr> <td>Most new phones have a GPS built in.</td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr> <tr> <td>We saw that several other people had also signed the logbook.</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr> </tbody> </table>		Yes	No	It's a fun game played by people all over the world.	<input checked="" type="radio"/>	<input type="radio"/>	The first time I went geocaching was with my mom when I was in first grade.	<input type="radio"/>	<input checked="" type="radio"/>	Most new phones have a GPS built in.	<input type="radio"/>	<input checked="" type="radio"/>	We saw that several other people had also signed the logbook.	<input checked="" type="radio"/>	<input type="radio"/>
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We saw that several other people had also signed the logbook.	<input checked="" type="radio"/>	<input type="radio"/>															
5	3.RV.2.1: Apply context clues (e.g., word, phrase, sentence, and paragraph clues) and text features (e.g., charts, headings/subheadings, font/format) to determine the meanings of unknown words.	<p>We finally found the <u>cache</u>—a <u>small</u>, camouflaged bottle that <u>blended in perfectly</u> with the tree. No wonder it was <u>so hard to find</u>! Inside was <u>a small piece of paper</u> called <u>a logbook</u>. We wrote our names, city and state, and the date on the logbook. Then we put it <u>back in the bottle</u>. We saw that several other people had also signed the logbook.</p>															
6	3.RL.2.3: Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the plot.	Part A: A Part B: D,E															
7	3.RL.2.2: Retell folktales, fables, and tall tales from diverse cultures; identify the themes in these works.	D															
8	3.W.5: Conduct short research on a topic. • Recognize that some sources may be more reliable than others.	A, B															
9	4.W.6.2d: Spelling – Using spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts, homophones/homographs) in writing single and multi-syllable words.	favorite could															

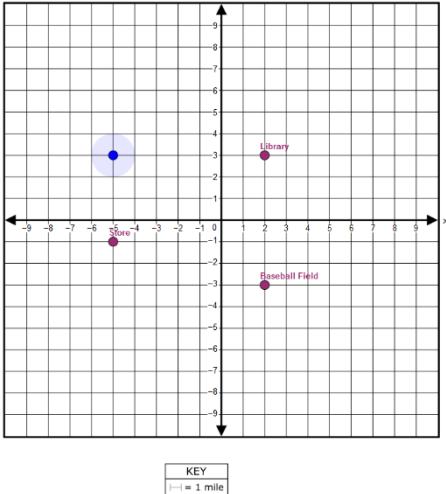
Question	Indiana Academic Standard	Correct Response
10	3.W.3.3: Write narrative compositions in a variety of forms that – <ul style="list-style-type: none"> Establish an introduction (e.g., situation, narrator, characters). Include specific descriptive details and clear event sequences. Include dialogue. Connect ideas and events using introduction and transition words. Provide an ending. 	<div>This weekend, my friend Lucy and I had a sleepover party at her house.</div> <div>First, Lucy's mom made cheese pizza for us.</div> <div>Then we rode our bikes outside until it got dark.</div> <div>Then we changed into our pajamas and watched television.</div> <div>Around midnight, we finally fell asleep.</div> <div>It was the best weekend ever!</div>
11	3.W.3.2: Write informative compositions on a variety of topics that – <ul style="list-style-type: none"> State the topic, develop a main idea for the introductory paragraph, and group related information together. Develop the topic with facts and details. Connect ideas within categories of information using words and phrases. Use text features (e.g., pictures, graphics) when useful to aid comprehension. Provide a concluding statement or section. 	<div> <div>Why the Park Is Popular</div> <div>Visitors can see beautiful canyons, waterfalls, and rivers.</div> <div>People can hike, camp, and snowmobile in the park.</div> <div>The park is most famous for its hot springs and erupting geysers like Old Faithful.</div> </div> <div> <div>History of the Park</div> <div>By 1948, the park was getting more than a million visitors per year.</div> <div>Cars were first allowed into the park in 1915.</div> <div>The park was created on March 1, 1872.</div> </div> <p>The order in which the facts appear do not contribute to scoring in this type of item. The facts need to be under the correct heading.</p>

Grades 3-4 Section 3: Science

Question	Indiana Academic Standard	Correct Response
1	4.5.8: Identify simple patterns in data and propose explanations to account for the	D

Grades 5-6 Section 1: Mathematics

Question	Indiana Academic Standard	Correct Response																				
1	5.AT.5: Solve real-world problems involving addition, subtraction, multiplication, and division with decimals to hundredths, including problems that involve money in decimal notation (e.g. by using equations to represent the problem).	44.71 or equivalent																				
2	5.M.1: Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step real-world problems.	\div , \times , 6																				
3	5.C.4: Add and subtract fractions with unlike denominators, including mixed numbers.	A, D, E																				
4	5.AT.7: Represent real-world problems and equations by graphing ordered pairs in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.	Part A:  Part B: (7, 9)																				
5	5.DS.2: Understand and use measures of center (mean and median) and frequency (mode) to describe a data set.	What is the median? 10 What is the mean? 13 What is the mode? 5																				
6	5.C.9: Evaluate expressions with parentheses or brackets involving whole numbers using the commutative properties of addition and multiplication, associative properties of addition and multiplication, and distributive property.	<table><tr><td></td><td>$6 + (8 + 9)$</td><td>$(6 \times 8) + 9$</td><td>$(6 \times 8) + (6 \times 9)$</td></tr><tr><td>$6(8 + 9)$</td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr><tr><td>$(8 + 9) + 6$</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td></tr><tr><td>$(9 \times 6) + (8 \times 6)$</td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr><tr><td>$(6 + 8) + 9$</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td></tr></table>		$6 + (8 + 9)$	$(6 \times 8) + 9$	$(6 \times 8) + (6 \times 9)$	$6(8 + 9)$	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	$(8 + 9) + 6$	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	$(9 \times 6) + (8 \times 6)$	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	$(6 + 8) + 9$	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
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$(6 + 8) + 9$	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>																			
7	6.AF.3: Define and use multiple variables when writing expressions to represent real-world and other mathematical problems, and evaluate them for given values.	Part A: $8x + 13y$ Part B: 79																				
8	6.NS.5: Know commonly used fractions (halves, thirds, fourths, fifths, eighths, tenths) and their decimal and percent equivalents. Convert between any two representations (fractions, decimals, percents) of positive rational numbers without the use of a calculator.	<table><tr><td></td><td>$\frac{1}{4}$</td><td>$\frac{2}{5}$</td><td>$\frac{1}{5}$</td></tr><tr><td>0.4</td><td><input type="radio"/></td><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr><tr><td>0.25</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td></tr><tr><td>20%</td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr><tr><td>25%</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td></tr></table>		$\frac{1}{4}$	$\frac{2}{5}$	$\frac{1}{5}$	0.4	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	0.25	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	20%	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	25%	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
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25%	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>																			

Question	Indiana Academic Standard	Correct Response												
9	6.GM.1: Convert between measurement systems (English to metric and metric to English) given conversion factors, and use these conversions in solving real-world problems.	<div><div>Kitchen Tiles</div><table><thead><tr><th></th><th>Tile A</th><th>Tile B</th><th>Tile C</th></tr></thead><tbody><tr><td>Width (inches)</td><td>6.00 in.</td><td>1.50 in.</td><td>4.00 in.</td></tr><tr><td>Width (centimeters)</td><td>15.24 cm</td><td>3.81 cm</td><td>10.16 cm</td></tr></tbody></table></div>		Tile A	Tile B	Tile C	Width (inches)	6.00 in.	1.50 in.	4.00 in.	Width (centimeters)	15.24 cm	3.81 cm	10.16 cm
	Tile A	Tile B	Tile C											
Width (inches)	6.00 in.	1.50 in.	4.00 in.											
Width (centimeters)	15.24 cm	3.81 cm	10.16 cm											
10	6.C.6: Apply the order of operations and properties of operations (identity, inverse, commutative properties of addition and multiplication, associative properties of addition and multiplication, and distributive property) to evaluate numerical expressions with nonnegative rational numbers, including those using grouping symbols, such as parentheses, and involving whole number exponents. Justify each step in the process.	Part A: Step 2: $= 3 + (10)^2$ Part B: 53												
11	6.AF.8: Solve real-world and other mathematical problems by graphing points with rational number coordinates on a coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	Part A: <div><div>KEY 1 unit = 1 mile</div></div> Part B: 6 or equivalent												

Grades 5-6 Section 2: English/Language Arts

Question	Indiana Academic Standard	Correct Response												
1	5.RN.3.1: Apply knowledge of text features in multiple print and digital sources to locate information, gain meaning from a text, or solve a problem.	C, D												
2	5.RV.2.1: Select and apply context clues (e.g., word, phrase, sentence, and paragraph clues) and text features to determine the meanings of unknown words.	Part A: C Part B: begun abandoning												
3	5.RN.3.3: Analyze multiple accounts of the same event or topic, noting important similarities and differences in the perspectives the accounts represent.	Part A: C Part B: <i>George Washington's Diary</i> "... we shall be prepared to defend our encampment on all sides from any attack." "What shall it take for Congress to understand the great need of our soldiers?" "I hear the joyous news that France will soon join us in our fight!" Weather and Lack of Provisions Taking Toll on Troops at Valley Forge "Soldiers are falling victim to typhoid, smallpox, and pneumonia, spreading like wildfire through the camp." "Marches have ruined the soldiers' shoes, and many go without." "General Washington has accused Congress of not caring about the soldiers ..."												
4	5.RN.4.2: Combine information from several texts or digital sources on the same topic in order to demonstrate knowledge about the subject.	A, C												
5	5.RL.2.3: Describe two or more characters, settings, or events in a story or play, drawing on specific details in the text, and how they impact the plot.	Part A: <table><tr><td></td><td>anxious, uneasy</td><td>quick thinker</td><td>easygoing, flexible</td></tr><tr><td>Kate</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Jacob</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> Part B: C, E, F		anxious, uneasy	quick thinker	easygoing, flexible	Kate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Jacob	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	anxious, uneasy	quick thinker	easygoing, flexible											
Kate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>											
Jacob	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
6	5.RL.2.3: Describe two or more characters, settings, or events in a story or play, drawing on specific details in the text, and how they impact the plot.	D												
7	5.RL.2.3: Describe two or more characters, settings, or events in a story or play, drawing on specific details in the text, and how they impact the plot.	B, D												

Question	Indiana Academic Standard	Correct Response
8	5.W.3.1 Write persuasive compositions in a variety of forms that – <ul style="list-style-type: none"> Clearly present a position in an introductory statement to an identified audience. Support the position with qualitative and quantitative facts and details from various sources, including texts. Use an organizational structure to group related ideas that support the purpose. Use language appropriate for the identified audience. Connect reasons to the position using words, phrases, and clauses. Provide a concluding statement or section related to the position presented. 	<div>I think it's time for me to have my own room.</div> <div>First, I need a quieter space for doing my homework.</div> <div>Last night I had to listen to my sister's television show while trying to study for a test.</div> <div>In addition, I go to bed an hour earlier than my sister because school starts earlier for me.</div> <div>I need sleep as much as she does, and our schedules no longer match.</div> <div>Based on these reasons, I think you'll agree that it would help me to do better in school if I had a room of my own.</div>
9	5.W.5 Conduct short research assignments and tasks on a topic. <ul style="list-style-type: none"> With support, formulate a research question (e.g., What were John Wooden's greatest contributions to college basketball?). Identify and acquire information through reliable primary and secondary sources. Summarize and paraphrase important ideas and supporting details, and include direct quotations where appropriate, citing the source of information. Avoid plagiarism and follow copyright guidelines for use of images, pictures, etc. Present the research information, choosing from a variety of sources. 	<div> <div>Best Sources for the Presentation</div> <div>a book on the history of wooden roller coasters</div> <div>a tourism website describing the major roller coasters in the United States</div> <div>a website with an image gallery of the most popular roller coasters in the United States</div> </div> <div> <div>Best Sources for Building</div> <div>an online image gallery of roller coasters built for a student science fair</div> <div>a video of students from last year's class interviewing one another about the success or failure of their projects</div> <div>a textbook with a checklist of the major errors students make when constructing roller coasters</div> </div> <p>The order in which the facts appear do not contribute to scoring in this type of item. The facts need to be placed under the correct heading.</p>
10	6.W.5: Conduct short research assignments and tasks to build knowledge about the research process and the topic under study. <ul style="list-style-type: none"> Gather relevant information from multiple sources, and annotate sources. 	A, C
11	5.W.6.2d: Spelling – Applying correct spelling patterns and generalizations in writing.	It's their

Question	Indiana Academic Standard	Correct Response
12	<p>5.W.4: Apply the writing process to –</p> <ul style="list-style-type: none"> • Generate a draft by developing, selecting and organizing ideas relevant to topic, purpose, and genre; revise to improve writing, using appropriate reference materials (e.g., quality of ideas, organization, sentence fluency, word choice); and edit writing for format and standard English conventions. 	<div data-bbox="906 178 1409 300"> <p>People travel to Alaska every year to visit the beautiful waterways and impressive landscape.</p> </div> <div data-bbox="906 315 1409 436"> <p>Alaska is home to many mountains.</p> </div> <div data-bbox="906 451 1409 573"> <p>Mount McKinley, located in the state of Alaska, has the highest peak of any mountain in the United States.</p> </div> <div data-bbox="906 588 1409 709"> <p>Standing over 20,000 feet, the peak is one of Alaska's most famous landmarks.</p> </div>

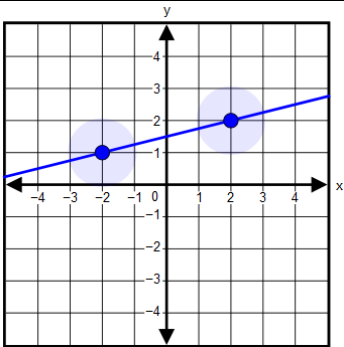
Grades 5-6 Section 3: Science

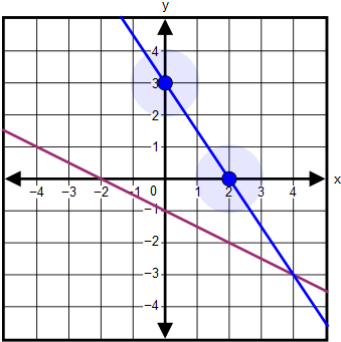
Question	Indiana Academic Standard	Correct Response
1	6.5.7. Analyze data, using appropriate mathematical manipulation as required, and use it to identify patterns. Make inferences based on these patterns.	B

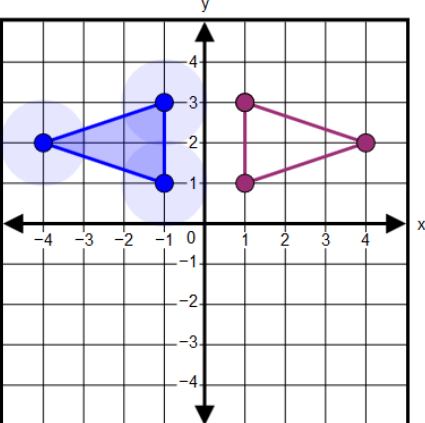
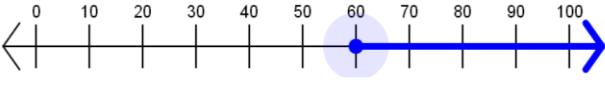
Grades 5-6 Section 4: Social Studies

Question	Indiana Academic Standard	Correct Response
1	5.1.7. Identify and locate the 13 British colonies by region (New England, Middle, Southern) and describe the political, social, and economic organization and structure of each region.	B

Grades 7-8 Section 1: Mathematics

Question	Indiana Academic Standard	Correct Response
1*	7.DSP.3: Find, use, and interpret measures of center (mean and median) and measures of spread (range, interquartile range, and mean absolute deviation) for numerical data from random samples to draw comparative inferences about two populations.	less than, equal to
2	7.AF.9: Identify real-world and other mathematical situations that involve proportional relationships. Write equations and draw graphs to represent proportional relationships and recognize that these situations are described by a linear function in the form $y = mx$, where the unit rate, m , is the slope of the line.	$s = 2.4r$ or $s = 2.4 * r$
3	7.NS.3: Know there are rational and irrational numbers. Identify, compare, and order rational and common irrational numbers ($\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$, π) and plot them on a number line.	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 40%;"> <p style="text-align: center; margin: 0;">Rational Numbers</p> <p style="margin: 5px 0;">$0.\overline{6}$</p> <p style="margin: 5px 0;">$\frac{5}{3}$</p> <p style="margin: 5px 0;">0.025</p> <p style="margin: 5px 0;">$\sqrt{9}$</p> </div> <div style="border: 1px solid black; padding: 5px; width: 40%;"> <p style="text-align: center; margin: 0;">Irrational Numbers</p> <p style="margin: 5px 0;">π</p> <p style="margin: 5px 0;">$\sqrt{3}$</p> </div> </div>
4	7.AF.5: Graph a line given its slope and a point on the line. Find the slope of a line given its graph.	
5*	7.AF.2: Solve equations of the form $px + q = r$ and $p(x + q) = r$ fluently, where p , q , and r are specific rational numbers. Represent real-world problems using equations of these forms and solve such problems.	Anthony Step 2: $0.25p = 7.5$
6*	7.DSP.4: Make observations about the degree of visual overlap of two numerical data distributions represented in line plots or box plots. Describe how data, particularly outliers, added to a data set may affect the mean and/or median.	stay the same; decrease

Question	Indiana Academic Standard	Correct Response																				
7*	8.GM.5: Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations. Describe a sequence that exhibits the similarity between two given similar figures.	A, D																				
8	8.NS.1: Give examples of rational and irrational numbers and explain the difference between them. Understand that every number has a decimal expansion; for rational numbers, show that the decimal expansion terminates or repeats, and convert a decimal expansion that repeats into a rational number.	$\frac{3}{11}$ or equivalent such as $\frac{27}{99}$																				
9	8.GM.1: Identify, define and describe attributes of three-dimensional geometric objects (right rectangular prisms, cylinders, cones, spheres, and pyramids). Explore the effects of slicing these objects using appropriate technology and describe the two-dimensional figure that results.	<table><tr><td></td><td>Cylinder</td><td>Cone</td><td>Cube</td><td>Square Pyramid</td></tr><tr><td>an object with at least one square face</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>an object with at least one circular base</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>an object with at least one triangular face</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table>		Cylinder	Cone	Cube	Square Pyramid	an object with at least one square face	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	an object with at least one circular base	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	an object with at least one triangular face	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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an object with at least one triangular face	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																		
10*	8.DSP.1: Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantitative variables. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	positive association; linear association																				
11	8.AF.8: Understand that solutions to a system of two linear equations correspond to points of intersection of their graphs because points of intersection satisfy both equations simultaneously. Approximate the solution of a system of equations by graphing and interpreting the reasonableness of the approximation.	<p>Part A:</p>  <p>Part B: intersect</p>																				

Question	Indiana Academic Standard	Correct Response
12	8.GM.6: Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	
13	7.AF.3: Solve inequalities of the form $px + q (> \text{ or } \geq) r$ or $px + q (< \text{ or } \leq) r$, where p , q , and r are specific rational numbers. Represent real-world problems using inequalities of these forms and solve such problems. Graph the solution set of the inequality and interpret it in the context of the problem.	
14	7.GM.6: Solve real-world and other mathematical problems involving volume of cylinders and three-dimensional objects composed of right rectangular prisms.	<p>Part A: The student multiplies $3.14 \times 16 \times 8$ to get 401.92 then divides 1,000 by 401.92 to get 2.488 which rounds to an answer of 2.</p> <p>Part B: Yes, Sally is correct. The student multiplies $3.14 \times 16 \times 4$ to get 200.96 which is exactly half of 401.92</p>

*ISTEP+ Part 2 will have “calculator” and “noncalculator” sessions. Tests questions 1, 5, 6, 7, and 10 may require the use of a calculator. These questions would be grouped in a “calculator” session in spring 2016.

Grades 7-8 Section 2: English/Language Arts

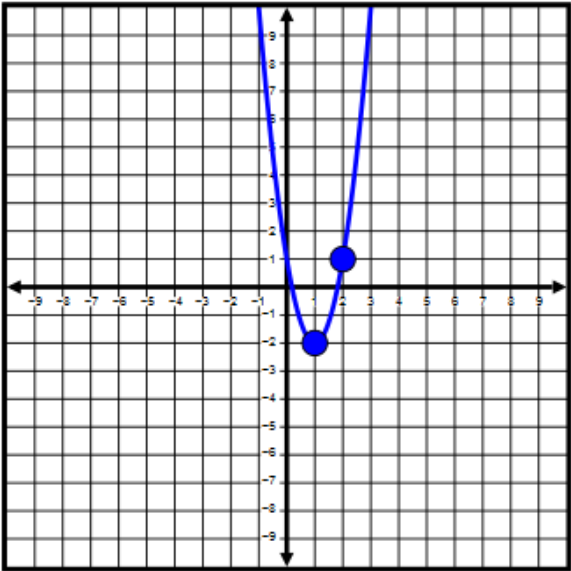
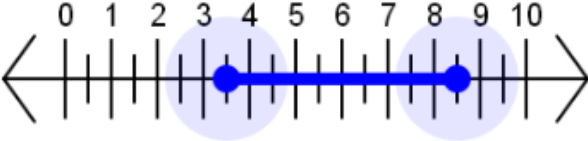
Question	Indiana Academic Standard	Correct Response																		
1	8.RN.3.3: Determine an author’s perspective or purpose in a text, and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	C																		
2	8.RN.2.2: Analyze the development of a central idea over the course of a text, including its relationship to supporting ideas; provide a detailed, objective summary of the text.	A, D, F																		
3	8.RN.4.1: Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.	<table border="1"> <thead> <tr> <th></th><th>Yes</th><th>No</th></tr> </thead> <tbody> <tr> <td>However, by the time students are in middle school, recess is largely a thing of the past.</td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr> <tr> <td>One recent study by the University of Michigan shows a 20 percent increase in memory and attention span from simply being outdoors during the day.</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr> <tr> <td>Everyone knows that exercise is good for the body, but it is also critical for the mind.</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr> <tr> <td>There are studies that show an increase in reading success if students are allowed at least 90 minutes of uninterrupted instruction each day.</td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr> <tr> <td>Understandably, teachers are trying to show middle school students the importance of maturing and focusing on increasingly more challenging tasks.</td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr> </tbody> </table>		Yes	No	However, by the time students are in middle school, recess is largely a thing of the past.	<input type="radio"/>	<input checked="" type="radio"/>	One recent study by the University of Michigan shows a 20 percent increase in memory and attention span from simply being outdoors during the day.	<input checked="" type="radio"/>	<input type="radio"/>	Everyone knows that exercise is good for the body, but it is also critical for the mind.	<input checked="" type="radio"/>	<input type="radio"/>	There are studies that show an increase in reading success if students are allowed at least 90 minutes of uninterrupted instruction each day.	<input type="radio"/>	<input checked="" type="radio"/>	Understandably, teachers are trying to show middle school students the importance of maturing and focusing on increasingly more challenging tasks.	<input type="radio"/>	<input checked="" type="radio"/>
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4	8.RV.2.1: Use context to determine or clarify the meaning of words and phrases.	D																		
5	7.RL.2.2: Analyze the development of a theme or central idea over the course of a work of literature; provide a detailed summary that supports the analysis.	Part A: A Part B: B, E																		
6	7.RL.2.3: Analyze the interaction of elements in a work of literature (e.g., how setting shapes the characters or plot).	A, D, F																		
7	7.RV.2.1: Use context to determine or clarify the meaning of words and phrases.	D																		
8	7.RL.4.2: Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.	B																		

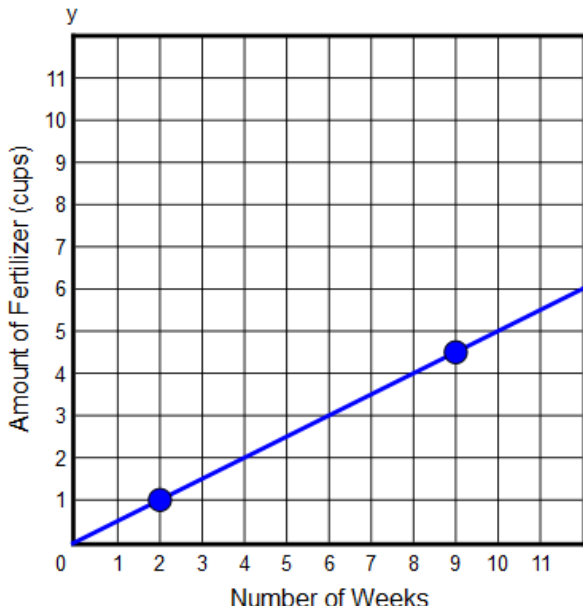
Question	Indiana Academic Standard	Correct Response
9	7.W.4: Apply the writing process to – <ul style="list-style-type: none"> Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults. 	<p>Can you imagine a tree that has lived for over one thousand years? Standing over 370 feet tall, redwood trees are often known as the tallest trees in the world.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Redwood trees are often described as majestic because of their pure size and beauty.</p> </div> <p>People travel from all around the world to visit them. Yet, their popularity has led to some concerns about their longevity and survival.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Currently, conservation efforts are being made to ensure that future generations can enjoy the natural beauty and awe of the redwood trees.</p> </div>
10	7.W.6.1b: Verbs –Recognizing and correcting problems with subject/verb agreement.	wrote said
11	8.ML.2.1: Identify and analyze persuasive and propaganda techniques used in visual and verbal messages by electronic, print and mass media, and identify false or misleading information.	<p>1 The Three Gorges Dam, which spans the Yangtze River in China, is the <u>world's largest hydroelectric dam system</u>. Completed in 2012, the dam took nearly 18 years to build at a cost of approximately 8 billion, making it the most expensive dam system ever built. The dam was <u>designed not only to generate clean power</u>, but to <u>decrease the risk of flooding</u>, store and distribute water during droughts, and <u>improve the river's shipping capacity</u>.</p> <p>2 At full production, the dam is <u>capable of producing approximately 10% of China's energy needs</u>. As the country is highly dependent on coal for much of its energy, clean hydropower is a major benefit. Building the dam meant, however, <u>the loss of more than 4,000 villages, 140 towns, and 13 cities</u> and the displacement of over 2 million people. Countless buildings, artifacts, and monuments that represent <u>over 5,000 years of history have now been submerged, lost forever</u>.</p>

Grades 7-8 Section 3: Social Studies

Question	Indiana Academic Standard	Correct Response
1	7.3.1: Formulate a broad understanding of the location of countries of Africa, Asia and the Southwest Pacific.	B

Grade 10 Section 1: Mathematics

Question	Indiana Academic Standard	Correct Response
1	AI.QE.3: Graph exponential and quadratic equations in two variables with and without technology.	
2	8.NS.2: Use rational approximations of irrational numbers to compare the size of irrational numbers, plot them approximately on a number line, and estimate the value of expressions involving irrational numbers.	<p>Part A:</p>  <p>Part B: 7.4 and 7.5</p> <p>Part C: B, C</p>

Question	Indiana Academic Standard	Correct Response														
3	A.L.5: Represent real-world problems that can be modeled with a linear function using equations, graphs, and tables; translate fluently among these representations, and interpret the slope and intercepts.	Part A: Fertilizer Mixture <table border="1"><thead><tr><th>Number of Cups of the Mixture</th><th>Number of Ounces of Fertilizer</th></tr></thead><tbody><tr><td>3</td><td>$\frac{3}{4}$</td></tr><tr><td>6</td><td>$1\frac{1}{2}$</td></tr><tr><td>9</td><td>$2\frac{1}{4}$</td></tr><tr><td>12</td><td>3</td></tr><tr><td>15</td><td>$3\frac{3}{4}$</td></tr><tr><td>20</td><td>5</td></tr></tbody></table> Part B: Fertilizer for One Plant  Part C: 104 cups	Number of Cups of the Mixture	Number of Ounces of Fertilizer	3	$\frac{3}{4}$	6	$1\frac{1}{2}$	9	$2\frac{1}{4}$	12	3	15	$3\frac{3}{4}$	20	5
Number of Cups of the Mixture	Number of Ounces of Fertilizer															
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20	5															
4	Al.QE.6: Use the process of factoring to determine zeros, lines of symmetry, and extreme values in real-world and other mathematical problems involving quadratic functions; interpret the results in the real-world contexts.	C														

Grade 10 Section 2: English Language Arts

Question	Indiana Academic Standard	Correct Response										
1	9-10.RL.2.1: Cite strong and thorough textual evidence to support analysis of what a text says explicitly as well as inferences and interpretations drawn from the text.	D										
2	9-10.RL.2.3: Analyze how dynamic characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	Part A: B Part B: B										
3	9-10.RL.2.1: Cite strong and thorough textual evidence to support analysis of what a text says explicitly as well as inferences and interpretations drawn from the text.	<p>25 Alone, he lay breathing rapidly, his emaciated chest proving itself equal to the demands his emotion put upon it. "Fine!" he repeated, with husky indignation. "Fine way to cure a sick man! Fine!" Then, after a silence, he gave forth whispering sounds as of laughter, his expression the while remaining sore and far from humour.</p>										
4	9-10.RL.2.3: Analyze how dynamic characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	B, D										
5	9-10.RV.3.1: Analyze the meaning of words and phrases as they are used in works of literature, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings.	<table><tr><th>Mrs. Adams's Statements</th><th>Tone</th></tr><tr><td>"She paused for a moment, not looking at him, then added, cheerfully, 'So that you can fly around and find something really good to get into.'"</td><td>Hopeful</td></tr><tr><td>"Why, I'm not doing any hinting, Virgil."</td><td>Scheming</td></tr><tr><td>"Virgil, if you don't owe it to me to look for something different, don't you owe it to your children?"</td><td>Pleading</td></tr><tr><td>"Don't tell me you won't do what we all want you to, and what you know in your heart you ought to!"</td><td>Demanding</td></tr></table>	Mrs. Adams's Statements	Tone	"She paused for a moment, not looking at him, then added, cheerfully, 'So that you can fly around and find something really good to get into.'"	Hopeful	"Why, I'm not doing any hinting, Virgil."	Scheming	"Virgil, if you don't owe it to me to look for something different, don't you owe it to your children?"	Pleading	"Don't tell me you won't do what we all want you to, and what you know in your heart you ought to!"	Demanding
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6	9-10.RN.3.3: Determine an author's perspective or purpose in a text, and analyze how an author uses rhetoric to advance that perspective or purpose.	B										
7	9-10.RN.2.1: Cite strong and thorough textual evidence to support analysis of what a text says explicitly as well as inferences and interpretations drawn from the text.	Part A: A Part B: D										

Question	Indiana Academic Standard	Correct Response
8	9-10.RN.4.1: Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.	D, E
9	9-10.RN.2.3: Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.	<p>4 What would have been the use of all this to the great colourists of the world . . . ? They could not get six hundred shades to order; six was more like their range, they did not need more, and in those they could not command precise uniformity. They knew that the slight variations caused by natural human methods add to the beauty and interest of a thing, and that a few good colours are worth any number of indifferent ones.</p> <p>5 It is quite certain that a great many of the handicrafts that have depended upon commercial dyes would produce infinitely better work if they dyed their raw material themselves.</p> <p>6 It may be objected that life is not long enough; but the handicrafts are out to create more life, not out to produce quantity nor to save time.</p> <p>7 The aim of commerce is material gain; the aim of the crafts is to make life, and no trouble must be spared to reach that end. It must always be before the craft worker. Dyeing is an art; the moment science dominates it, it is an art no longer, and the craftsman must go back to the time before science touched it, and begin all over again.</p>
10	9-10.RN.2.3: Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.	<div> <div> Machine-Made Products <div>Bland quality</div> <div>Quick production</div> <div>Uniformity</div> </div> <div> Handmade Products <div>Time-consuming creation</div> <div>Creativity</div> <div>Imperfection</div> </div> </div> <p>The order in which the facts appear do not contribute to scoring in this type of item. The facts need to be placed under the correct heading.</p>

Question	Indiana Academic Standard	Correct Response
11	<p>9-10.W.3.1: Write arguments in a variety of forms that –</p> <ul style="list-style-type: none"> • Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence. • Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level and concerns. • Use effective transitions to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. • Establish and maintain a consistent style and tone appropriate to purpose and audience. • Provide a concluding statement or section that follows from and supports the argument presented. 	Not surprisingly
12	<p>9-10.RV.2.4: Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy).</p>	<p>The students attending the inauguration respectfully listened to the speeches.</p> <p>At all times, respectful behavior was expected at the memorial services.</p> <p>The young boy showed respect for his grandmother’s wish to be left alone.</p> <p>The councillors retired to their respective chambers.</p>

Grade 10 Section 3: Science

Question	Indiana Academic Standard	Correct Response
1	B.2.3: Explain that most cells contain mitochondria (the key sites of cellular respiration), where stored chemical energy is converted into useable energy for the cell. Explain that some cells, including many plant cells, contain chloroplasts (the key sites of photosynthesis) where the energy of light is captured for use in chemical work.	A
2	B.2.5: Explain that cells use proteins to form structures (e.g., cilia, flagella), which allow them to carry out specific functions (e.g., movement, adhesion and absorption).	C