

Strand: Engineering		
Topic: 3-5.E.3 Scientific Method		
Level: 5th Grade		
Score		Sample Activities
Score 4.0	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning	<ul style="list-style-type: none"> Given a situation, the student can formulate the question and hypothesis as well as explain or construct the experiment.
	3.5 In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	<p>The student:</p> <ul style="list-style-type: none"> Constructs and performs fair investigations in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved <p>The student exhibits no major errors or omissions.</p>	<ul style="list-style-type: none"> Given a situation such as “A bridge has been constructed using plastic straws and can either be supported by a triangle or square structure. How can you determine which shape structure works best?” Example experiments(can be used for level 4 also): Egg drop, sail boat design, boat float, paper airplane design.
	2.5 No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.	
Score 2.0	<p>There are no major errors or omissions regarding the simpler details and processes as the student:</p> <ul style="list-style-type: none"> recognizes or recalls specific terminology, such as: <ul style="list-style-type: none"> hypothesis, variable, control, analysis performs basic processes, such as: <ul style="list-style-type: none"> identifies controls and variables in scenarios identifies the 6 step process of the scientific method <ol style="list-style-type: none"> Identify the problem or question Research Hypothesis Experiment Analysis Conclusion/Report <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>	<ul style="list-style-type: none"> 3 plants are all receiving the same amount of light, water and soil, but given different types of fertilizer. Identify the control and the variables in this situation. <p>(Consider writing this in a fill in the blank format)</p>
	1.5 Partial knowledge of the 2.0 content, but major errors or omissions regarding the 3.0 content.	
Score 1.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.	
	0.5 With help, a partial understanding of the 2.0 content, but not the 3.0 content.	
Score 0.0	Even with help, no understanding or skill demonstrated.	

Strand: Life Science

Topic: 5.LS.2 - Indiana Organisms

Level: 5th Grade

Score 4.0	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning		Sample Activities
	3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	<p>The student:</p> <ul style="list-style-type: none"> ● Observes and classifies organisms as producers, consumers, decomposers, or predator and prey based on their relationships and interactions with other organisms in their ecosystem (including those found in Indiana). <p>The student exhibits no major errors or omissions.</p>		<ul style="list-style-type: none"> ● When given a food chain, students can show an understanding that based on the relationship and interaction between animals they can be predators or prey. ● Using an illustration/photograph of ecosystems, students must identify which organisms are the predators, prey, decomposers, etc.
	2.5	No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.	
Score 2.0	<p>There are no major errors or omissions regarding the simpler details and processes as the student:</p> <ul style="list-style-type: none"> ● recognizes or recalls specific terminology, such as: <ul style="list-style-type: none"> ○ producers, consumers, decomposers, organism, ecosystem ● performs basic processes, such as: <ul style="list-style-type: none"> ○ Identifies organisms and ecosystems <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>		<ul style="list-style-type: none"> ● Match organisms to their appropriate ecosystems.
	1.5	Partial knowledge of the 2.0 content, but major errors or omissions regarding the 3.0 content.	
Score 1.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.		
	0.5	With help, a partial understanding of the 2.0 content, but not the 3.0 content.	
Score 0.0	Even with help, no understanding or skill demonstrated.		

Strand: Earth and Space Science

Topic: 5.ES.1 Solar System

Level: 5th Grade

Score 4.0	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning		Sample Activities
	3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.	<ul style="list-style-type: none"> ● Compare and contrast size, physical features, and ability to support life of two planets in our solar system.
Score 3.0	<p>The student:</p> <ul style="list-style-type: none"> ● Analyzes the scale of our solar system and its components: our solar system includes the sun, moon, seven other planets and their moons, and many other objects like asteroids and comets. <p>The student exhibits no major errors or omissions.</p>		<ul style="list-style-type: none"> ● Describe the components of our solar system. ● Identify the difference in size between planets and the sun.
	2.5	No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.	
Score 2.0	<p>There are no major errors or omissions regarding the simpler details and processes as the student:</p> <ul style="list-style-type: none"> ● recognizes or recalls specific terminology, such as: <ul style="list-style-type: none"> ○ planet, scale, asteroid, comet, solar system ● performs basic processes, such as: <ul style="list-style-type: none"> ○ Determines the position of the sun and its surrounding planets within our solar system. <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>		<ul style="list-style-type: none"> ● Label a diagram of our solar system.
	1.5	Partial knowledge of the 2.0 content, but major errors or omissions regarding the 3.0 content.	
Score 1.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.		
	0.5	With help, a partial understanding of the 2.0 content, but not the 3.0 content.	
Score 0.0	Even with help, no understanding or skill demonstrated.		