

SPI #	SPI Description	Assessment: =0.1;0.2;0.3;0.4; Quarter=1:2:3:4	Ongoing or by
Embedded Inquiry			
Grade Level Expectations			
<i>Conceptual Strand</i>			
<i>Guiding Question</i>			
SPI 0807.Inq.1.	Design a simple experimental procedure with an identified control and appropriate variables.	0.1;0.2;0.3;0.4;	
SPI 0807.Inq.2.	Select tools and procedures needed to conduct a moderately complex experiment.	0.1;0.2;0.3;0.4;	
SPI 0807.Inq.3.	Interpret and translate data into a table, graph, or diagram.	0.1;0.2;0.3;0.4;	
SPI 0807.Inq.4.	Draw a conclusion that establishes a cause and effect relationship supported by evidence.	0.1;0.2;0.3;0.4;	
SPI 0807.Inq.5.	Identify a faulty interpretation of data that is due to bias or experimental error.	0.1;0.2;0.3;0.4;	
Embedded Technology and Engineering			
Grade Level Expectations			
<i>Conceptual Strand</i>			
<i>Guiding Question</i>			
SPI 0807.T/E.1.	Identify the tools and procedures needed to test the design features of a prototype.		1
SPI 0807.T/E.2.	Evaluate a protocol to determine if the engineering design process was successfully applied.		1
SPI 0807.T/E.3.	Distinguish between the intended benefits and the unintended consequences of a new technology.		3
SPI 0807.T/E.4.	Differentiate between adaptive and assistive bioengineered products (e.g., food, biofuels, medicines, integrated pest management).		1
Biodiversity and Change			
Grade Level Expectations			
<i>Conceptual Strand</i>			
<i>Guiding Question</i>			
SPI 0807.5.1.	Use a simple classification key to identify an unknown organism.		1
SPI 0807.5.2.	Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment		1
SPI 0807.5.3.	Analyze data on levels of variation within a population to make predictions about survival under particular environmental conditions.		1
SPI 0807.5.4.	Identify several reasons for the importance of maintaining the earth's biodiversity.		1
SPI 0807.5.5.	Compare fossils found in sedimentary rock to determine their relative age.		1
Matter			
Grade Level Expectations			

<i>Conceptual Strand</i>	<i>Guiding Question</i>	
SPI 0807.9.1.	Recognize that all matter consists of atoms.	2
SPI 0807.9.2.	Identify the common outcome of all chemical changes.	2
SPI 0807.9.3.	Classify common substances as elements or compounds based on their symbols or formulas.	2
SPI 0807.9.4.	Differentiate between a mixture and a compound.	2
SPI 0807.9.5.	Describe the chemical makeup of the atmosphere.	2
SPI 0807.9.6.	Compare the particle arrangement and type of particle motion associated with different states of matter.	2
SPI 0807.9.7.	Apply an equation to determine the density of an object based on its mass and volume.	2
SPI 0807.9.8.	Interpret the results of an investigation to determine whether a physical or chemical change has occurred.	2
SPI 0807.9.9.	Use the periodic table to determine the properties of an element.	3
SPI 0807.9.10.	Identify the reactants and products of a chemical reaction.	3
SPI 0807.9.11.	Recognize that in a chemical reaction the mass of the reactants is equal to the mass of the products (Law of Conservation of Mass).	3
SPI 0807.9.12.	Identify the basic properties of acids and bases.	3
Forces in Nature	Grade Level Expectations	
<i>Conceptual Strand</i>	<i>Guiding Question</i>	
SPI 0807.12.1.	Recognize that electricity can be produced using a magnet and wire coil.	3
SPI 0807.12.2.	Describe the basic principles of an electromagnet.	3
SPI 0807.12.3.	Distinguish among the Earth's magnetic field, a magnet, and the fields that surround a magnet and an electromagnet.	3
SPI 0807.12.4.	Distinguish between mass and weight using appropriate measuring instruments and units.	3
SPI 0807.12.5.	Determine the relationship among the mass of objects, the distance between these objects, and the amount of gravitational attraction.	4
SPI 0807.12.6.	Illustrate how gravity controls the motion of objects in the solar system.	4