

TCAP-ACH Grade 5 Science Framework

*Inquiry and Technology & Engineering		
	*This is not a separate reporting category. These SPIs are embedded within each RC.	
	The total number of these items is 3-5 with no more than one ITE per RC. The SPIs are listed in each RC.	
LS 1: Cells, Flow of Matter & Energy, Heredity		%
		17-27%
		# of Items
		11-17
0507.1.1	Identify the major parts of plant and animal cells, such as the nucleus, cell membrane, cell wall, and cytoplasm.	
0507.1.2	Compare and contrast basic structures and functions of plant and animal cells.	
0507.3.1	Identify photosynthesis as the food manufacturing process in plants.	
0507.3.2	Compare how plants and animals obtain energy.	
0507.4.1	Recognize that information is passed from parent to offspring during reproduction.	
0507.4.2	Distinguish between inherited traits and those that can be attributed to the environment.	
0507.Inq.1	Select and investigation that could be used to answer a specific question.	
0507.T/E.1	Select a tool, technology, or invention that was used to solve a human problem.	
0507.T/E.2	Recognize the connection between a scientific advance and the development of a new tool or technology.	
LS 2: Interdependence, Biodiversity & Change		%
		16-23%
		# of Items
		10-15
0507.2.1	Describe the different types of nutritional relationships that exist among organisms.	
0507.2.2	Distinguish among symbiotic, commensal, and parasitic relationships.	
0507.2.3	Use information about the impact of human actions or natural disasters on the environment to support a simple hypothesis, make a prediction, or draw a conclusion.	
0507.5.1	Identify physical and behavioral adaptations that enable animals such as amphibians, reptiles, birds, fish, and mammals to survive in a particular environment.	
0507.5.2	Explain how fossils provide information about the past.	
0507.Inq.1	Select and investigation that could be used to answer a specific question.	

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0507.T/E.1	Select a tool, technology, or invention that was used to solve a human problem.	
0507.T/E.2	Recognize the connection between a scientific advance and the development of a new tool or technology.	

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ES: The Universe, The Earth, The Atmosphere		%	# of Items
		19-30	12-19
0507.6.1	Distinguish among the planets according to their known characteristics such as appearance, location, composition, and apparent motion.		
0507.6.2	Select information from a complex data representation to draw conclusions about the planets.		
0507.6.3	Identify methods and tools for identifying star patterns.		
0507.7.1	Describe internal forces such as volcanoes, earthquakes, faulting, and plate movements that are responsible for the earth's major geological features such as mountains, valleys, etc.		
0507.8.1	Describe the effects of the oceans on weather and climate.		
0507.8.2	Explain how mountains affect weather and climate.		
0507.Inq.1	Select and investigation that could be used to answer a specific question.		
0507.T/E.1	Select a tool, technology, or invention that was used to solve a human problem.		
0507.T/E.2	Recognize the connection between a scientific advance and the development of a new tool or technology.		
PS 1: Matter and Energy		%	# of Items
		16-23%	10-15
0507.9.1	Distinguish between physical and chemical properties.		
0507.9.2	Describe the differences among freezing, melting, and evaporation.		
0507.9.3	Describe factors that influence the rate at which different types of material freeze, melt, or evaporate.		
0507.10.1	Differentiate between potential and kinetic energy.		
0507.10.2	Use data from an investigation to determine the method by which heat energy is transferred from one object or material to another.		
0507.Inq.1	Select and investigation that could be used to answer a specific question.		
0507.T/E.1	Select a tool, technology, or invention that was used to solve a human problem.		
0507.T/E.2	Recognize the connection between a scientific advance and the development of a new tool or technology.		

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PS 2: Motion, Forces in Nature		%	# of Items
		11-19%	7-12
0507.11.1	Explain the relationship that exist among mass, force, and distance traveled.		
0507.12.1	Recognize that the earth attracts objects without touching them.		
0507.12.2	Identify the force that causes an object to fall to the earth.		
0507.12.3	Use data to determine how shape affects the rate at which a material falls to earth.		
0507.Inq.1	Select and investigation that could be used to answer a specific question.		
0507.T/E.1	Select a tool, technology, or invention that was used to solve a human problem.		
0507.T/E.2	Recognize the connection between a scientific advance and the development of a new tool or technology.		