KCSD96

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Grade 5 Science Pacing Guide 19-20

Extends	Mastery	Developing	T1	T2	T3
Specify what would happen to the flow of energy if one element of the food chain were changed or removed.	Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.	Recognize and recall specific vocabulary; describe why animals need food; describe how the sun's energy is stored in food.	X		
Research and compare plants from two differing extreme environments and their ability to survive (ex. Cactus in desert vs. kelp forest in ocean vs. bromeliad in rain forest, etc.).	Support an argument that plants get the materials they need for growth chiefly from air and water.	Recognize and recall specific vocabulary; describe how plants get the materials they need for growth; describe the relationship between plants, air, water, and soil.	X		
Infer what might happen to the movement of matter (air, water, decomposed materials in soil) when the ecosystem changes. (human cause, natural disasters, climate change)	Support an argument that plants get the materials they need for growth chiefly from air and water.	Recognize and recall specific vocabulary; describe different ways in which plants, animals, decomposers, and the environment use matter.	X		
Based on a different stage of the sun's life cycle, decide what the effects of life on earth would be.	Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.	Recognize and recall specific vocabulary; identify the distances of different stars (including the sun) from the Earth; describe the apparent brightness of various stars.		X	
Does Not Extend	Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	Recognize and recall specific vocabulary; plot data about the length and direction of shadows, length of day and night, and seasonal appearance of stars in a graph.		X	
Does Not Extend	Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. (Section 1, last paragraph)	Recognize and recall specific vocabulary; describe the critical elements of the geosphere, biosphere, hydrosphere, and atmosphere; state accurate information about the ways in which the geosphere, biosphere, hydrosphere, and atmosphere interact.		X	
Infer what the water supply will be like in the future using data from the past and present. (Teacher can find data about California drought, polar ice caps, etc.)	Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	Recognize and recall specific vocabulary; identify the various sources of fresh water on Earth; describe the amounts and percentages of fresh water and overall water on Earth.		X	
Create and investigate a plan for your school or community to help protect the resources and environment.	Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	Recognize and recall specific vocabulary; describe specific ways that science is used to protect the Earth's resources and environment.		X	
Does Not Extend	Support an argument that the gravitational force exerted by Earth on objects is directed down.	Recognize and recall specific vocabulary; describe the relationshop between Earth, gravity, and objects on Earth.		X	
Compare and contrast the particles of the fourth state of matter (Plasma) with the particles from one of the following states of matter: Solids, liquids, or gasses).	Develop a model to describe that matter is made of particles too small to be seen.	Recognize and recall specific vocabulary; describe how matter is constructed of many parts.			X
Knowing that the law of conservation of matter is true, provide and explain an example of how initial materials weigh more than the final substance / product.	Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	Recognize and recall specific vocabulary; name and describe the changes that occur when heating, cooling, or mixing substances; use scales to measure weight; plot numbers on a graph.			X
Does Not Extend	Make observations and measurements to identify materials based on their properties.	Recognize and recall specific vocabulary; describe the properties scientists use to identify materials; observe and describe the properties of different materials.			X
Does Not Extend	Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	Recognize or recall specific vocabulary (for example, chemical reaction, mix, substance); describe the signs or signals that indicae a chemical reaction.			X