Buzzing a Hive-2nd Grade

Timeframe
10 weeks

September 24, 2012 DRAFT

Standards	Assessment/ Student Evidence	Academic Vocabulary	Resources
SYSA A system is a group of interacting parts that form a whole	Give examples of a simple living system like a bee or flower. Explain how different parts make up the whole.	System Parts Whole	*Buzzing a Hive* Teacher Guide by GEMS Class book sets of: *Time for Kids, Science Scoops: Bees* by Winchester (return all books with kit)
SYSB A whole object, plant, or animal may not continue to function the same way if some of its parts are missing.	Explain how the parts of a bee system depend on one another for the system to function (ie: Without a proboscis the bee cannot get nectar)		
SYSD Some objects need to have their parts connected a certain way if they are to function as a whole.			
SYSC A whole object, plant or animal can do things that none of its parts can do by themselves.			
SYSE Similar parts may play different roles in different objects, plants or animals.			

Power Standards in green | **Complementary Standards in yellow**

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INQE Models are useful for understanding systems that are too big, too small, or too dangerous to study directly.	Use a simple model like a paper bee, paper flower, and paper hive to study a system. Explain how the model can be used to understand the system.	Model	
INQD Simple instruments, such as magnifiers, thermometers and rulers provide more information than scientists can obtain using only their unaided senses.		Hand Lens	
INQF Scientists develop explanations, using observations (evidence) and what they already know about the world. Explanations should be based on evidence from investigations	Accurately describe results, referring to a graph or other data as evidence. Draw a conclusion about the question that motivated the study using the results (observations) of an investigation as evidence.	Observations	
INQC Inferences are based on observations.		Inference	
LS1B (2-3) Animals have life cycles that include birth; to juveniles, adolescents, then adults, reproducing and eventually dying. Details of the life cycle are different for different animals.	Describe the life cycle of a common type of animal like a bee going from egg, to larva to pupa to adult.	Life cycle Egg Larvae Pupae Adult	

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LS1D (4-5) Plants and animals have structures and behaviors that respond to internal needs.			
LS1B (4-5) Plants and animals have different structures and behaviors that serve different functions.	• List parts of an animal's body and describe how it helps the animal meet its basic needs (proboscis helps bee get nectar, antennae helps bee sense things) • Describe the function of a given animal behavior (Bees fan hive to cool temperature, produce wax to form cells)	Thorax Abdomen Antennae Wings Proboscis Pollen Nectar	
LS3A There are variations among the same kinds of plants and animals.			
LS2C Some changes in ecosystems occur slowly and other occur rapidly. Changes can affect life forms, including humans.	• Explain the consequences of a rapid and gradual ecosystem change (skunk damages hive, wrong bee enters hive, mites infest hive or drought causes most flowers to die)		

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