

Space Science Sequence-6th grade (formerly Earth-Space Systems)

Timeframe 10 Weeks

May 29, 2012

Standards	Assessment/ Student Evidence	Academic Vocabulary	Resources
SYSA Any system may be thought of as containing subsystems and as being a subsystem of a larger system		System Subsystem	<i>Space Science Sequence for Grades 6-8</i> Teacher Guide by GEMS/Lawrence Hall of Science
SYSF The natural and designed world is complex; it is too large and complicated to investigate and comprehend all at once. Scientists and students learn to define small portions for the convenience of investigation. The units of investigation can be referred to as “systems”			
INQE Models are used to represent objects, events, systems, and processes. Models can be used to test hypotheses and better understand phenomena, but they have limitations	<ul style="list-style-type: none"> • Create a model or simulation to represent the behavior of objects, events, systems, or processes. Use the model to explore the relationship between two variables and point out how the model or simulation is similar to or different from the actual phenomena. 	Model	
INQH Science advances through openness to new ideas, honesty, and legitimate skepticism. Asking thoughtful questions, querying other scientists’ explanations, and evaluating one’s own thinking in response to the ideas of others are abilities of scientific inquiry.			

Power Standards in green

Complementary Standards in yellow

Standards	Assessment/ Student Evidence	Academic Vocabulary	Resources
INQC Collecting, analyzing, and displaying data are essential aspects of all investigations			
INQA Scientific inquiry involves asking and answering questions and comparing the answer with what scientists already know about the world			
ES1C Most objects in the Solar System are in regular and predictable motion. These motions explain such phenomena as the day, the year, phases of the Moon, and eclipses	<ul style="list-style-type: none"> Use a simple physical model or labeled drawing of the Earth-Sun-Moon system to explain day and night, phases of the Moon, and eclipses of the Moon and Sun 	Solar System Motion Phases of the Moon Eclipse	
ES1A The Moon's monthly cycle of phases can be explained by its changing relative position as it orbits Earth. An eclipse of the Moon occurs when the Moon enters Earth's shadow. An eclipse of the Sun occurs when the Moon is between the Earth and Sun, and the Moon's shadow falls on the Earth		Orbit	
ES1B Earth is the third planet from the sun in a system that includes the Moon, the Sun, seven other major planets and their moons, and smaller objects such as asteroids, plutoids, dwarf planets and comets. These bodies differ in many characteristics (e.g., size, composition, relative position)		Planet Asteroid Plutoids Dwarf planets comets	

Power Standards in green

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ES1D Gravity is the force that keeps planets in orbit around the Sun and governs the rest of the motion in the Solar System. Gravity alone holds us to the Earth's surface		Gravity	

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