Trimester 1: SCIENCE

September 2nd – November 14th , continued

Interactive Science Lesson	VOCABULARY
Chapter 1 The Nature of Science ● What do scientists do? ● How do scientists investigate? ● How do scientists collect and interpret data? ● How do scientists support their conclusions?	**Hypothesis:** statement of what you think will happen during an investigation. **Variable**: something that can change in a test. **Control Group:** a standard against which is measured. **Observation:** something you find out about objects, events, or living things using your senses. **Procedures:** step-by-step instructions for completing a task. **Experiment:** the use of scientific methods to test a hypothesis. **Inference:** a conclusion based on observations **Data:** information from which a conclusion can be drawn or a prediction can be made. **Evidence**: observations that make you believe something is true. **Precision:** the ability to consistently repeat a measurement. **Accuracy:** ability to make a measurement that is as close to the actual value as possible.
Chapter 1 Test	

Resources:

Physical Science Notebook

Scientific Method Stations

Science Jim - Observations

Observation, Inference, Prediction

Observation Activity

Coin Lab

Trimester 1: SCIENCE

September 2nd – November 14th , continued

IN STATE STANDARD	Interactive Science Lesson	VOCABULARY
Standard 3: Life Science 5.3.1 observe and classify common Indiana organisms as producers, consumers, decomposers, predator and prey based on their relationship and interaction with other organisms in their ecosystem. 5.3.2 investigate the action of different decomposers and compare their role in an ecosystem with that of producers and consumers.	**Chapter 6** Ecosystem ● What are parts of an ecosystem? ● How do organisms interact? ● How do some Indiana organisms interact? ● How do organisms get and use energy? ● How do people impact ecosystems?	**Community:** the group of all populations in an area. **Ecosystem:** all the living and nonliving things in an area and their interactions. **Predator:** an animal that hunts and eats another animal. **Habitat:** a place that provides all the things an organism needs to live. **Prey:** any animal that is hunted by others for food. **Population:** a group of organisms of one species that live in an area at the same time. **Cellular respiration:** the process by which cells break down sugar to release energy. **Deciduous plant:** a plant that loses all of its leaves for a part of the year. **Producer:** organism that makes its own food for energy. **Pollution:** any substance that damages the environment. **Evergreen Plant:** a plant that keeps green leaves on its branches all year. **Consumer:** organism that cannot make its own food. **Conservation:** an attempt to preserve or protect an environment from harmful changes. **Photosynthesis:** the process that plants use to make sugar for food. **Decomposer:** organisms that gets its energy breaking down wastes and dead organisms.

Resources:

Ecosystem Stations
Life Science
Ecosystem Interactive Notebook
Ecosystem Brochure Project

Trimester 2: SCIENCE

November 14th – February 27th , continued

IN STATE STANDARD	Interactive Science Lesson	VOCABULARY
Standard 2: Earth Science 5.2.1 recognize that our earth is part of the solar system in which the sun, an average star, is the central and largest body. Observe that our solar system includes the sun, moon, seven other planets and their moons, and many other smaller objects like asteroids and comets. 5.2.2 observe and use pictures to record how the sun appears to move across the sky in the same general way every day but rises and sets in different places as the seasons change.	**Chapter 5** Solar System • What is the solar system? • What is the sun? • What are the inner planets? • What are the outer planets? • How does Earth move? • What are the phases of the moon?	**Solar flare:** an explosive eruption of waves and particles into space. **Star:** a huge ball of very hot gas that gives off energy. **Constellation:** the sun and its planets, along with moons, asteroids, and comets. **Solar system:** a group of stars that forms a pattern. **Inner planet:** any of the four closest planets to the sun. **Planet:** a large, round object that revolves around a star and has cleared the region around its orbit. **Eclipse:** event in which one object in space gets between the sun and another object. **Axis:** an imaginary line around which an object spins. **Orbit:** the path an object takes as it revolves around a star, planet, or moon. **Lunar eclipse:** event in which the moon passes through Earth's shadow. **Rotation:** one whole spin of an object on its axis. **Moon:** a natural object that revolves around a planet. **Solar eclipse:** event in which the moon passes between the sun and the Earth and casts its shadow on Earth. **Revolution:** one full orbit around an object. **Outer planet:** any of the four planets in our solar system beyond.

Resources:

Astronomy A Totally Tourist Rocky Planets Video Mr. DeMaio Solar System 20 minutes

Earth and Space

Trimester 3: SCIENCE

February 27th – June 3rd , continued

IN STATE STANDARD	Interactive Science Lesson	VOCABULARY
Standard 1: Physical Science 5.1.1 describe and measure the volume and weight of a sample of a given material. 5.1.2 describe the difference between weight and mass. Understand that weight is dependent on gravity and mass is the amount of matter in a given substance or material. 5.1.3 demonstrate that regardless of how parts of an object are assembled the weight of the whole object is identical to the sum of the weight of the parts; however, the volume can differ from the sum of the volumes. 5.1.4 determine if matter has been added or lost by comparing weights when melting freezing or dissolving a sample of a substance.	**Chapter 3** Properties of Matter ● What makes up matter? ● What are solids, liquids, and gases? ● What are mixtures and solutions?	**Molecule:** the smallest particle of a compound that still has the properties of that compound. **Atom:** the smallest part of an element that still has the properties of the element. **Solid:** a substance that has definite shape and volume. **Atomic theory:** the idea that everything is made of small particles. **Liquid:** a substance that has a definite volume but no definite shape. **Compound:** a type of matter made of 2 or more elements. **Gas:** a substance without a definite volume or shape. **Mixture:** different materials placed together but each material keeps its own properties. **Solution:** a mixture in which substances are spread out evenly and will not settle.
Resources:		

Trimester 3: SCIENCE

February 27th – June 3rd , continued

IN STATE STANDARD	Interactive Science Lesson	VOCABULARY
Standard 1: Physical Science 5.1.1 describe and measure the volume and weight of a sample of a given material. 5.1.2 describe the difference between weight and mass. Understand that weight is dependent on gravity and mass is the amount of matter in a given substance or material. 5.1.3 demonstrate that regardless of how parts of an object are assembled the weight of the whole object is identical to the sum of the weight of the parts; however, the volume can differ from the sum of the volumes. 5.1.4 determine if matter has been added or lost by comparing weights when melting freezing or dissolving a sample of a substance.	**Chapter 4** Physical and Chemical Changes ● How do you measure matter? ● How do physical changes affect properties? ● How do chemical changes affect properties?	**Volume:** the amount of space an object takes up. **Physical change:** a change in some properties of matter without forming a different kind of matter. **Melting:** the change of a solid into a liquid. **Mass:** the amount of matter in a solid, liquid, or gas. **Freezing:** the change of a liquid into a solid **Weight:** the force of Earth's pull on an object. **Chemical Change:** a change of one or more types of matter into other types of matter with different properties. **Law of Conservation of Mass:** a rule stating that in a chemical change, mass is not created or destroyed; it only changes from one from to another.
Resources:		

Trimester 3: SCIENCE

February 27th – June 3rd , continued

IN STATE STANDARD	Interactive Science Lesson	NOTES	VOCABULARY
Standard 4: Science, Engineering, and Technology 5.4.1 investigate technologies that mimic human or animal musculoskeletal systems in order to meet a need. 5.4.2 investigate the purpose of prototypes and models when designing a solution to a problem and how limitations in cost and design features might affect their construction. 5.4.3 design solutions to problems in the context to musculoskeletal body systems. Using suitable tools, techniques and materials, draw or build a prototype or model of a proposed design.	**Chapter2** Design and Function ● What is technology? ● How does technology mimic living things? ● What is the design process?	Optional chapter if time allows	**Technology:** the knowledge, processes, and products that solve problems and make work easier. **Design process:** a set of steps for developing products and processes that solve problems. **Prototype:** a version of a solution to a problem. **Microchip:** a small piece of computer that contains microscopic circuits. **Prosthetic limb:** an artificial arm, hand, leg, or foot that replaces a missing one.
Resources:			

Science Resource:

Science All in One Notebook

Processing Skills Notebook

Science Sorts

Science Notebook Templates