Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_

Complete this review worksheet along with the Science Oaks Comprehensive Review PowerPoint. You may work with a partner. Please ask questions if a concept is confusing so we can go over it.

Photosynthesis

1. What materials do plants use to produce oxygen?
2. What else do plants produce besides oxygen?
3. How do plants use the sun to produce oxygen?

Water Cycle

1. Define Evaporation:
2. Define Transpiration:
3. Draw a diagram of the water cycle starting with the ocean.

Weathering & Erosion

1. What is Weathering, and what are some examples of it?
2. How might mountains like the Rockies and Mt. Hood look different 1000 years from now?
3. Mt. St. Helens has a dome that is growing at its center. Is this destructive or constructive?

The Rock Cycle

1. How is an Igneous rock made?
2. How is a Sedimentary rock made?
3. How is a Metamorphic rock made?
4. Draw a diagram of the rock cycle (a diagram that shows how the three types of rock can be made into the others).

Predators & Prey

1. Give three examples of a predator, and its prey (must be different for each).

Food Chains & Food Webs

1. Why is the Sun included in the food chain?
2. What part do plants like mushrooms, and animals like worms play in the food chain?
3. What would happen to the food web if the mouse population had a lethal virus and it wiped out the local population? What would this do to the rest of the food web?

Producers, Consumers, Decomposers

1. What is the difference between a Producer and a Decomposer?
2. What do the following eat: Carnivore, Omnivore, Herbivore?
3. What is a Niche?

Symbiosis

1. What is the difference between: Mutualism, Commensalism, Parasitism?

Reproduction

1. What is a major difference between asexual reproduction and sexual reproduction?

Genetics

1. How many chromosomes do humans have?
2. What is Mitosis?
3. How many chromosomes do human reproductive cells have?
4. What is the difference between homozygous dominant, heterozygous dominant, and heterozygous recessive?
5. Name three traits that can be inherited.
6. Fill out the Punnett square where the father is Rr and the mother is Rr for tongue rolling.

Cells

1. List the different organelles (parts) of an animal cell, and draw a diagram.
2. List the different organelles (parts) of a plant cell, and draw a diagram.

Body Systems

1. What is the relationship between cells, tissues, organs, and organ systems?
2. What are the main parts of the Respiratory System?
3. What are the main parts of the Muscular System?
4. What are the main parts of the Circulatory System?
5. What are the main parts of the Digestive System?
6. What are the main parts of the Nervous System?
7. What are the main parts of the Skeletal System?
8. What are the main parts of the Excretory System?
9. What are the main parts of the Reproductive System?
10. What are the main parts of the Endocrine System?
11. How is the sun responsible for giving you the energy to run? How has the energy transferred from the sun to you?

Electricity

1. Draw a series circuit with a lightbulb, battery, and a switch.
2. Draw a parallel circuit with 2 lightbulbs, battery, and a switch.

Density

1. What will happen if something has a density of MORE than 1.0 g/cm3?
2. What will happen if something has a density of LESS than 1.0 g/cm3?
3. If you put the following liquids in a beaker together, what order would they layer themselves in (from top to bottom)? Water, Cooking Oil, Sea Water, Carbon Tetrachloride, Benzene, Glycerin, Methanol.
4. List the Laws of Conservation. What is a common theme between all of them?

Seasons

1. Why do we have seasons?
2. When it is summer in the Northern Hemisphere, what season is it in the Southern Hemisphere?
3. When it is spring in the Southern Hemisphere, what season is it in the Northern Hemisphere?

Tides

1. What two things cause the rise and fall of ocean tides?
2. How many high and low tides are there every day?

Moon Phases

1. How much of the moon is always lit up, and why do we see different portions lit up?

States of Matter

1. What happens to molecules when they change from a solid to a liquid? Is this adding or subtracting energy?
2. What happens to molecules when they change from a liquid to a solid? Is this adding or subtracting energy?

Scientific Processes

1. What are the steps in the Scientific Method?
2. What are the steps in the Engineering Design Process?
3. How are the Scientific Method and the Engineering Design Process similar?

Energy

1. What are the types of energy, and provide an example of each.
2. What is the difference between potential and kinetic energy?
3. What are the two types of potential energy, and give an example of each.
4. What are Newton’s Three Laws of Motion?

Layers of the Earth

1. What are the five major layers of the Earth?
2. In which layer of the atmosphere does the weather occur?

Animal Adaptations

1. What is Natural Selection, and give an example of it.