**Chapter 2 Study Guide**

**Essential Question:  What features help plants make their own food and reproduce?**

**Vocabulary:**

*photosynthesis*:  the process by which plants create sugar for food

*chlorophyll*: the green substance that captures sunlight for energy

*sepal*: small, green leaves below the petal that cover and protect the flower bud

*pistil*: female organ of the flower that creates and forms egg cells

*stamen*: male part of the flower that makes pollen

*ovary*: thick bottom of the pistil

*fertilization*:  process by which egg and sperm cells combine to develop seeds

*dormant*: resting;  when a seed does not get what it needs to grow

**Key concepts to know:**

* The small openings on the underside of leaves that let carbon dioxide, water and oxygen pass in and out of the leaf are called stomata.
* All plants are made of cells.
* Plants create sugar for food by photosynthesis, which takes place in the chloroplasts in the plant’s leaves.
* The shape and arrangement of leaves on a plant helps the plant capture the most sunlight.
* The stem of the plant helps support the plant as well as move nutrients and water throughout the plant. Thick stems, like tree trunks, are covered with a layer of dead cells (bark) that helps protect the plant.
* Roots absorb water and nutrients from the soil as well as anchor the plant in the ground.
* Taproots, such as carrots, potatoes, and beets, have a main root that grows straight down and absorb water and nutrients from the soil. They also store these nutrients.
* A fibrous root system has no main root, but instead spreads out to absorb water and nutrients from the soil.
* The main job of the complete flower of the plant is to create seeds to make new plants.
* If a flower does not have stamens, it must receive pollen from another flower by animals or wind.
* Animals also help scatter seeds from plants when they gather and bury seeds for winter.
* A seed needs water, oxygen, and the correct temperature in order to germinate (sprout and grow). If it does not have all of these things, it may remain dormant until the growing conditions fulfill its needs.
* Spores are different from seeds because a spore has one cell and seeds are many-celled.
* Flowering plants and conifers reproduce using seeds.