Science Study Guide

**Vocabulary:**

*Photosynthesis:* The process in which plants make their own food (sugar)

*Chlorophyll:* The green material in plants that captures energy from sunlight for photosynthesis

*Sepal:* The leaf-like parts that cover and protect the flower bud

*Pistil:* The female structure in plants that produces egg cells

*Stamen:* The male part of the flower that makes tiny grains of pollen at their tips

*Ovary:* The thick bottom part of the pistil

*Fertilization:* The process by which an egg cell and a sperm cell combine and develop into a seed

*Dormant:* A state of rest when a seed does not get what it needs

**Key Points:**

* Plants can be pollinated by the wind, insects, birds, and other animals.
* Stems carry materials, such as water, minerals, and food, and hold the leaves of a plant so they can catch sunlight. The stem is an organ that carries materials and also supports the plant.
* In order for a seed to germinate, it needs water, oxygen, and the right temperature.
* Grafting works only if the tubes that carry water, mineral nutrients, and food between the two plant parts match up. Then, new tubes can grow together.
* Spores are scattered when spore cases burst and spores head in every direction.
* All plants are made of cells.
* A fibrous root system has no main root. Roots and root hairs stretch out in many directions.
* A taproot system has a large main root and it grows straight down. The taproot absorbs water and nutrients from the soil.
* Stomata are on the underside of the leaves and let oxygen, carbon dioxide, and water pass into and out of the leaf.
* Leaves produce food for the plant.
* Flowering plants and conifers both reproduce by means of seeds.