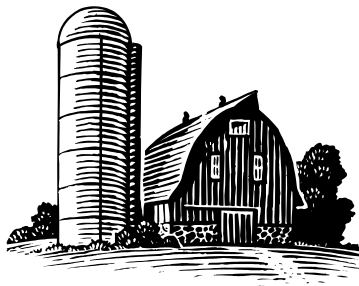
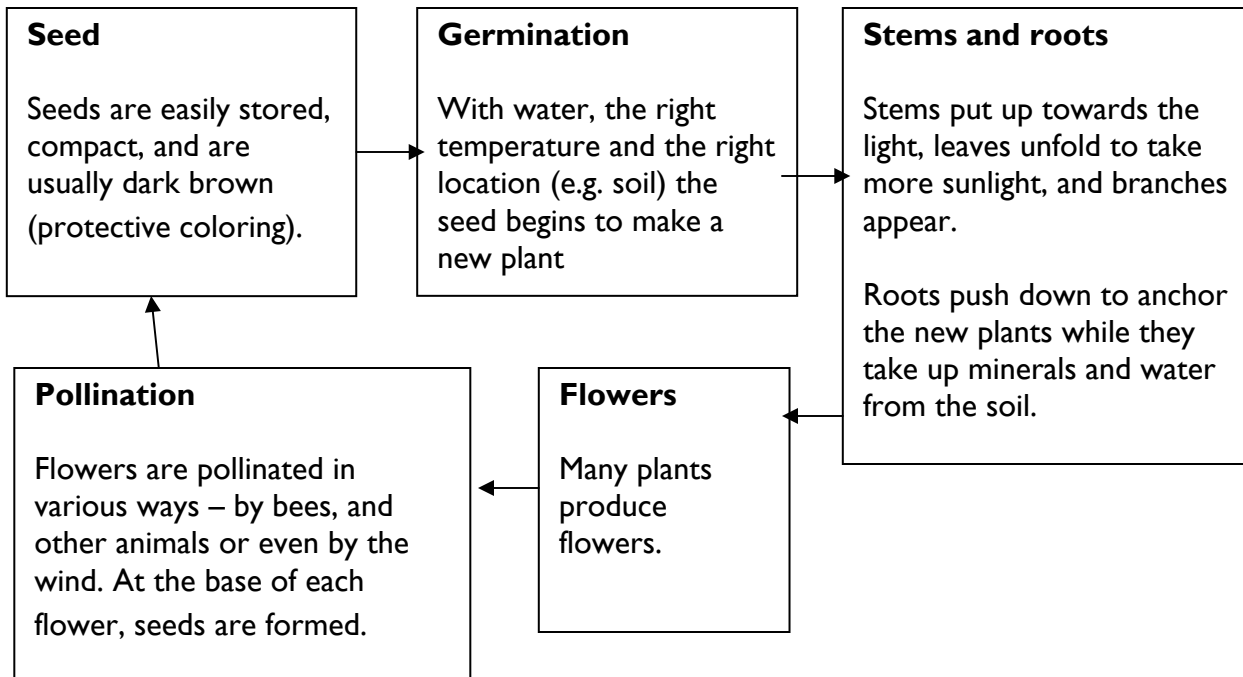


**Grade I**

**Lifecycle of Plants  
and  
Plant Needs**



## Lifecycle of a Plant



## Parts of a plant

- **Leaves** are the parts of the plant that produce food through photosynthesis. Leaves take in carbon dioxide from the air, water from the soil and energy from the sun. During photosynthesis the leaves use light energy to change carbon dioxide and water into food (sugar).
- **Flowers** are the reproductive parts of a plant. Flower petals and the flower's smell attract bees and other pollinators to the flower. After pollination the petals fall away and seeds develop in the part of the flower called the ovary. The ovary itself usually becomes what we call a fruit.
- **Stems** support the upper part of a plant. Water and dissolved nutrients from the soil travel up the stem in a system of tubes. Food from the leaves travels down the stems to the roots. Stems also store food.
- **Roots** anchor the plant in the soil. Water and minerals are taken from the soil through the roots. Many plants, such as carrots, store food in their roots.
- **Seeds** contain a tiny embryo of a plant inside. The seed halves contain food which supplies energy and materials for growth until the plant grows its first leaves above the ground.

### **Plant Needs**

- **Water**

Water provides hydrogen and oxygen which the plant needs in order to make food.

- **Minerals**

There are 13 mineral nutrients that plants need in order to survive. Soil contains many of these nutrients. Soil quality varies, which is why supplemental fertilizers are often added, but being such in abundant quantity on earth, it is the most prevalent material that plants grow in. It is important to note that plants can grow in other materials as long as the material used is able to hold water and the proper minerals and the plant has the ability to grow roots in the substance.

- **Sunlight**

Sunlight provides the plant with the energy that is necessary to convert carbon, oxygen, and hydrogen into starches and sugars which the plant uses for food. Photosynthesis is what this process is called; “making things with light”.

- **Carbon Dioxide**

Carbon dioxide is also needed to make food.