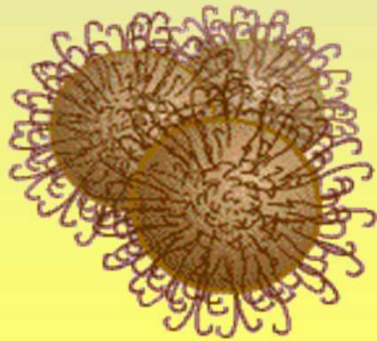
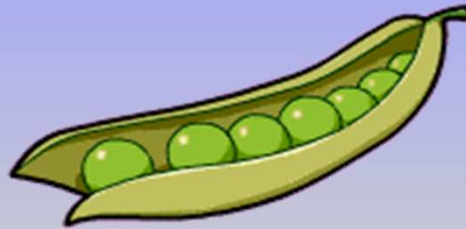


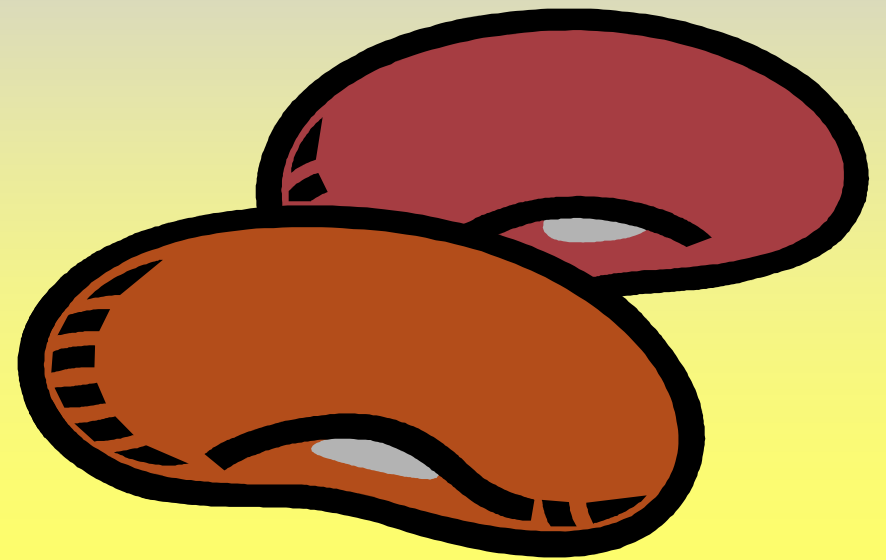
Growing Plants



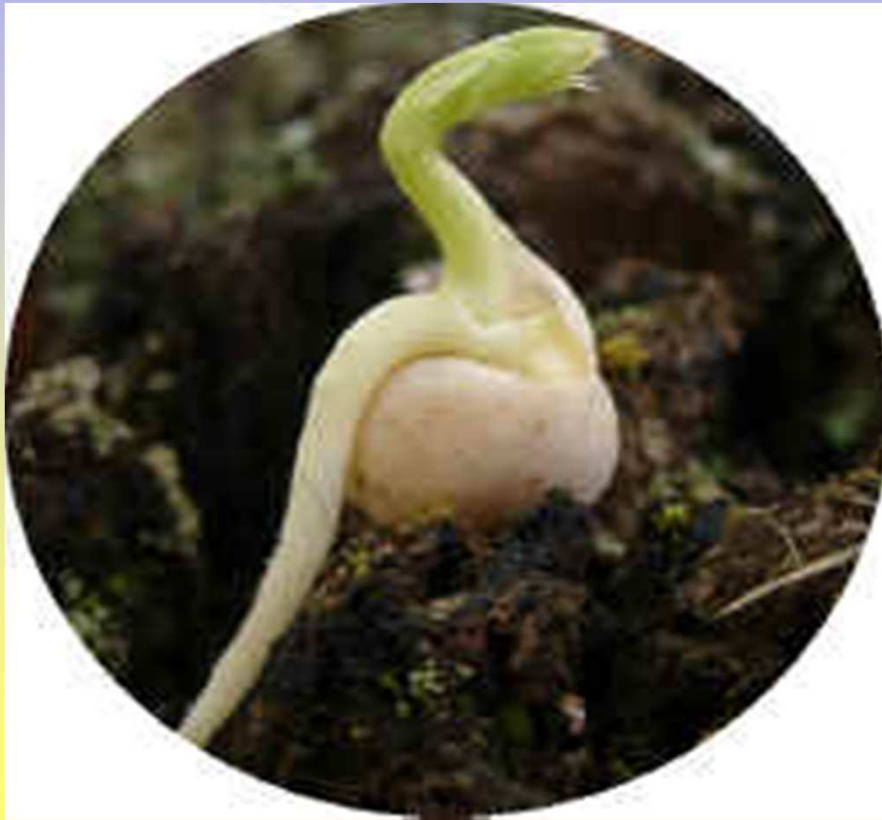
How are these seeds dispersed?



The mother plant sends the baby seed away with a packed lunch. This means the seed will have enough energy to start germinating, until he has made his own leaves which will supply him with more energy to grow into a big healthy plant.



Life Cycles



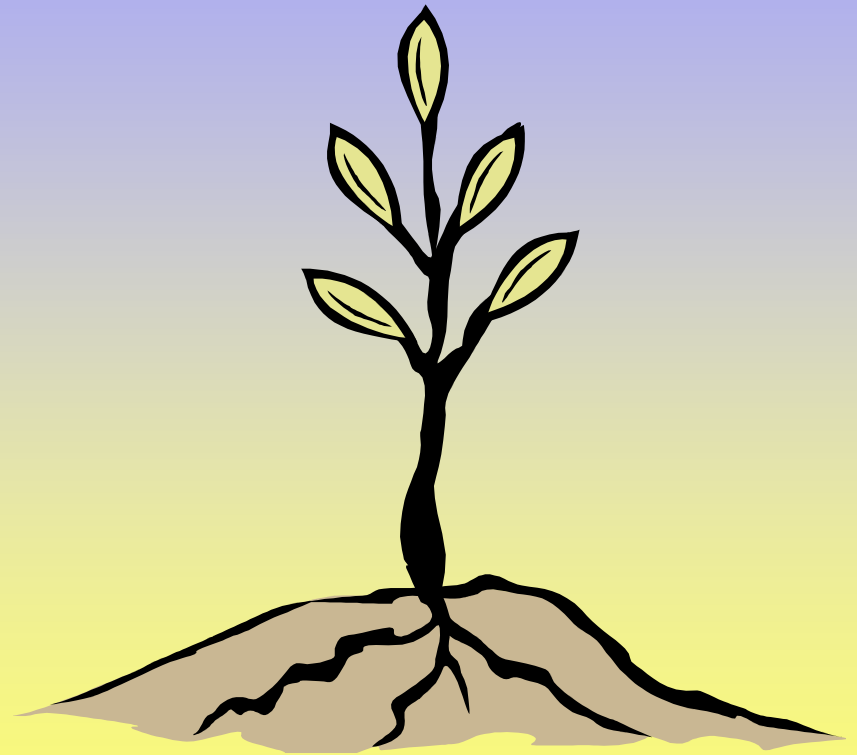
In order for a seed to germinate, the temperature must be right and there must be water to soak the seed. Some seeds also need light. If all the seed's needs are present, it will start to grow. The food reserves are turned into a form the plant embryo can use for energy to grow. First, the root (radicle) emerges from the seed coat, followed by the shoot (plumule). The root always grows downwards into the soil, while the shoot always grows upwards towards the light.

Leaves begin to grow so the plant can obtain energy from the sun.



The bigger seeds are, the longer the seedling has to become properly established before it must make its own food. Small seeds, with few food reserves, must grow and reach the light quickly, so that they can start producing their own food.

The first two leaves of a seedling often look different to the adult leaves. They are green and as soon as they open in the light, the little seedling can begin to make its own food. It is then no longer dependent on the food reserves in the seed. The seedling makes its own food using water, carbon dioxide from air and light, in a process known as photosynthesis.



Once plants are adult, they can begin to produce flowers. This may take only a few weeks for plants such as grasses, or many years for plants such as Oak trees. Flowers contain male and female parts. In most plants, these are both together in the same flowers. However, in some, they are in separate flowers on the same plant (Hazel). Some species may have separate male and female plants (Holly).



Pollen grains from the anthers must get onto the stigma of (usually) another flower. When the pollen lands on a stigma of a flower of the same kind, it will grow a tube down into the ovary and fertilize an ovule inside. This will then grow and form a seed





Different kinds of plants produce different kinds of seeds. The seeds travel to new places away from the parent plant which produced them. They do this using the help of wind, water, or animals.

And then the cycle

begins again

