Lesson 10: Plant Life Cycles

(Lesson covers pages 99–104)

When we think of plants and how they reproduce, it is really such an amazing process! Many plants have seeds. God has created plants that produce seeds. Inside that seed is everything that is needed to grow an entire plant!

One easy way to prove this is to take a single butter bean and wrap it in a wet paper towel. Watch it over the next few days to see what happens. You have to be sure to keep it good and moist (try a Ziploc® bag).

Another way that plants reproduce is by budding. This means simply that you can cut a piece off the plant, put it in the dirt (or even water), and watch it grow into a brand new plant!

If you think about the way God designed the seasons, it is an incredible part of the reproduction process for plants. In the summer, they grow and produce fruits; in the fall, they prepare to rest after the harvest. In the winter, they are dormant (resting) and holding their seeds. The springtime is filled with water (which is EXACTLY what is needed to make the seeds sprout) to encourage those new plants!

Let's learn more about plant life cycles!

Basic Plant Life Cycle

First of all, as the seed begins to grow, changing from a seed to an actual plant, we call this *germination.*

When we plant a seed, the first part that sprouts out of that seed is the *radicle*, the main root shoot that grows out of the bottom of the seed. You cannot see most of this because it happens

underground. Hopefully, you have a butterbean that is starting to do some of this (if you decided to try the butterbean sprouting)!

After that radicle grows, lateral (to the sides) roots will grow from that, starting the root system that the plant will need to obtain water and nutrients from the soil.

After a good little root system has started, you will begin to see some changes above the ground. After about seven days, you should see a green shoot coming up and some leaves beginning to grow as well.

When the shoot becomes a small plant with leaves, it is called a *seedling*. As it matures, it becomes an adult plant. The adult plant will grow and produce seeds to begin the cycle all over again.

Seed Dispersal

Look at pages 100 and 101. Examine the pictures, read the questions, and see what you can find out about how the seeds are moved from place to place.

What are some examples of animals that help the flowers share their pollen with other flowers? When animals help spread the pollen from flower to flower, this helps further the plant life cycle. With this pollen, the plants are able to carry on and produce seeds.

Once those seeds are produced, they have to be spread to different places. Otherwise, all the plants of one kind would live together in the same place and there would not be enough resources for them to all grow. When we spread these seeds to different places, we call this *dispersal*. What are some ways this is done?

Extension Activity

Pages 102–104 have a great activity that can be done to illustrate the plant life cycle. If you have ever grown a garden, that is another example of a plant life cycle.

Online Activity

Watch a short video about the life cycle of a plant and review the parts with the game at the end.
https://scetv.pbslearningmedia.org/resource/evscps.sci.life.seedint/from-seed-to-fruit-interactive/

There are also a lot of fun activities available on this website:
http://www.woojr.com/plant-life/

Life Cycle of a Plant

Use the words as hints to put the plant's life cycle in order. Then draw what you would see happening at each point in the cycle.

WORDS TO USE: FLOWER, ROOTS, RADICLE ROOT, STEM, SEED, LEAVES
(Remember! These are not in order. That is your job!)