

## 1. The Life Cycle

When you plant a seed, does it stay a seed forever? No! Plants and animals grow and change throughout their lives. Many plants begin as seeds. As the seed gets what it needs (water, sunlight, and nutrients from the soil), it begins to grow. The seed turns into a little sprout. It keeps growing until it is a full-grown plant. Then the plant makes new seeds, so that new plants can grow even after the plant grows old and dies.

Those seeds will then go through their growth process. Because seeds go through this process over and over again, it is called a life cycle. Animals also have life cycles. A frog begins as an egg. When the egg hatches, it turns into a tadpole. The tadpoles grow legs and arms, and eventually grow

into adult frogs. The adult frogs lay eggs, so that new frogs can live even after the frog grows old and dies. A dog's life cycle is a little different than a frog's, because a dog does not start out as an egg. It is born from its mother's belly. The puppy keeps growing and is eventually an adult dog. Then the adult dog might have puppies to continue the life cycle!

Insects like caterpillars go through life cycles, too. Caterpillars begin as eggs. When they hatch, they are larva. The caterpillar becomes a pupa, and inside of the pupa it turns into an adult. The adult is not a caterpillar; it is a butterfly! Then the butterfly lays eggs, so that new caterpillars and butterflies can live even after the butterfly grows old and dies. Plants and animals don't stay the same throughout their lives, they grow and change through their life cycle.

## 2. Helping Hally

Sam was sitting on the couch, watching television. His mom walked in the door with Hally, their dog. Hally walked right over to Sam and licked him hello. “Hi Hally! How was your checkup?” Sam asked. Hally just looked at Sam. “We have to help Hally,” said Mom. “Help her how?” asked Sam. “Do you remember when we went to pick up Hally from her litter? We picked her because she looked like her mom. She is brown with spots, with long ears, and she was energetic, so we thought she’d be strong, like her mom. But how does she look now?” Mom asked.

“Well,” thought Sam, “She’s still brown with spots and long ears, but she’s not very energetic or strong anymore.”

“That’s what the vet said, too. We haven’t been letting her exercise as much, and we’ve been feeding her a lot. She would

probably look just like her mom now if we had walked her more.

We have to start walking her more often, so that she’ll stay healthy for a long time. Will you help?” “Sure!” said Sam. He decided that he could play fetch with her every day in the yard, because then she could run and run and run until she was tired.

The first day, they only played fetch for about 10 minutes before Hally was tired. But Sam kept playing with her every day. Soon, they could play for an entire half an hour! Hally looked stronger every day, just like her mom. Sam felt great about helping Hally get strong again.

### 3. Landforms

There are many different types of landforms. Landforms are natural features on the planet's surface. You probably know about some of them already! Mountains are very tall landforms. They can be pointed or rounded, and some are even volcanic! When there are many mountains together, it is called a mountain range. Some mountains are formed from lava, while other mountains are formed when the plates under the earth's surface crash together and push up the land. Either way mountains are formed, it takes many, many years. Valleys are the spaces between mountains. Some valleys are V-shaped, and some are U-shaped. Many people live in valleys, because they have a comfortable temperature, are protected, and may have rivers flowing through them. Plateaus are like mountains,

but instead of pointed or rounded tops, they are flat on top. They usually form when magma rises, but doesn't break through the surface. The land rises instead. Plains are large, flat areas of land. Since flat land is easy to build on, many cities are on plains. Many plants can grow on plains, as well. Some plains are by oceans, and are called ocean plains. Plains that are by rivers are called river plains, and are especially good for growing crops. Islands are areas of land surrounded by water on all sides. They can be formed by underwater volcanoes. The lava builds up over time and eventually breaks the surface of the ocean. Deserts are another type of landform. They are large areas of land that do not receive a lot of rainfall. They can be very hot during the day, and very cold at night. It is difficult for many plants and animals to live in deserts. What kind of landform would you like to live on?