

Read About Life Cycles

LIFE CYCLE DEFINITION

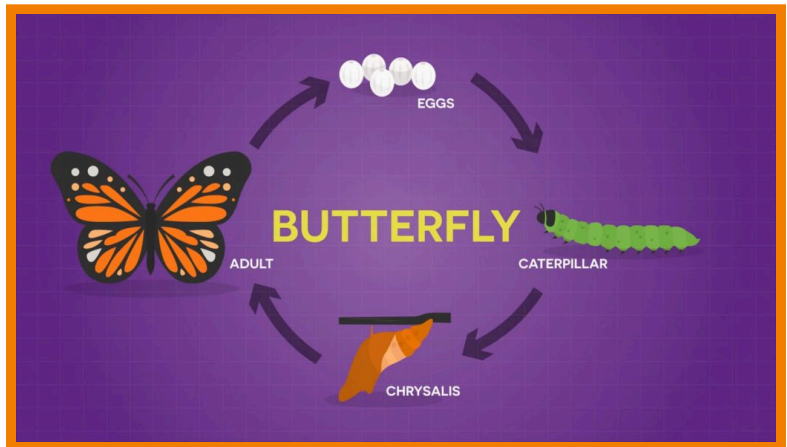
A *life cycle* is a series of stages a living thing goes through during its life. All plants and animals go through life cycles. It is helpful to use diagrams to show the stages, which often include starting as a seed, egg, or live birth, then growing up and reproducing. Life cycles repeat again and again.

To better understand the stages of life in plants and animals...

LET'S BREAK IT DOWN!

Plant & Animal Life Cycles: A life cycle shows how living things grow and change over time.

All plants and animals go through life cycles. Just think about all the growing and changing human children do as they grow up. Children grow in height and get heavier until they reach adulthood. Children also change as their body matures.



If you have a pet, you have probably watched parts of your pet's life cycle. They are born as puppies that depend on their mothers for food and care. Between six to 18 months, puppies become adolescent dogs, with lots of energy and playfulness. After about 3 years, dogs become adults and are ready to find a mate and make more puppies. When dogs are between six and ten years old, they enter the senior stage. They like to rest more and sometimes their snouts turn gray. At the end of their senior stage, a dog's life cycle comes to an end. But that's okay because the cycle will start all over again with new puppies.

Life Cycle of a Plant: Plants start as seeds, then most



form flowers and fruit.

Plants start as seeds. When a seed starts to grow we call that germination. When a plant is mature, it produces flowers. Flowers are fertilized, sometimes by animals like honeybees or sometimes by wind. After a flower is fertilized, most plants make seeds in the form of fruit. The seed inside the fruit can be planted and grow into a new plant, and the cycle starts over again.



Life Cycle of an Animal: Animals start from eggs or live birth, then they grow up and mate.

Animals begin life either from an egg or as a baby that is born ready for life. Baby animals grow and change into adolescents and eventually become adults. Adult animals look for a mate to begin the life cycle all over again with new babies. Each type of animal has their own unique life cycle.



When babies are born or hatch from eggs, some look much like their parents, like kittens and horses. Other baby animals look much different from their parents, like tadpoles which will turn into frogs.

Animals that change dramatically during their life cycle go through *metamorphosis*. For example, a mother butterfly lays eggs that hatch into baby caterpillars. As the caterpillar eats it grows bigger and bigger, and eventually it is ready to transform into a butterfly. The change takes place inside a chrysalis, where the caterpillar's body changes into a butterfly. When the butterfly comes out of the chrysalis, it is ready to find a mate and lay eggs. Then the cycle can start all over again!

Stages of Life: All life cycles start at birth, end with death, and involve growth and reproduction.

Some living things go through their life cycle quickly, like male drone ants that live for only three weeks. Other living things have much longer life cycles, like some types of pine trees that can live for over 5,000 years!

All life cycles have a few things in common: they start with seeds, eggs, or live birth, then involve multiple steps including reproduction, and then they end in death. The cycle repeats for millions of years.



ANIMAL AND PLANT LIFE CYCLE EXAMPLES



African bullfrogs lay eggs which turn into tadpoles.

Tadpoles will develop legs and lungs so they can live on land as adult frogs. This is a major step in the frog's life cycle.



Gorillas give birth to babies that only weigh a few pounds.

Baby gorillas depend on their mothers for the first three to four years. Then they grow up and the life cycle continues.



Plants go through pollination which produces seeds.

When the seeds are planted and begin to grow, the plant cycle starts all over again.

ANIMAL AND PLANT LIFE CYCLE VOCABULARY

Life cycle

A series of stages a living thing goes through during its life.

Metamorphosis

Changing forms dramatically over the course of a life cycle.

Larvae

The immature form of an insect that often undergoes metamorphosis. Larvae look very different than the adult bug they grow into thanks to the life cycle.

Chrysalis

A hard shell made by a caterpillar, moth or other insect in which a transformation called metamorphosis happens. In the video we see a caterpillar form a Chrysalis, then it turns into a butterfly.

Germination

The process of a plant starting to grow from a seed.

Seedling

A young plant that has recently started to grow from a seed. It is usually only a few inches tall and has roots, stem and just a few leaves.

ANIMAL AND PLANT LIFE CYCLE DISCUSSION QUESTIONS

Why are life cycle diagrams in the shape of a circle?

A life cycle is sometimes called the circle of life because animals and plants are born, grow into adults, reproduce and then die but their children then continue their own life cycle. The pattern repeats over and over again, sometimes for millions of years. Showing the pattern as a circle helps us see how it repeats.

What is metamorphosis?

Metamorphosis is when a living thing changes form dramatically over the course of its life such as a caterpillar becoming a butterfly.

How does a butterfly change dramatically throughout its life cycle?

Butterflies start their life cycle when they hatch from eggs as caterpillars. To become a butterfly, the caterpillar forms a chrysalis and undergoes metamorphosis where it changes dramatically into a butterfly.

How does an African Bullfrog use both land and water as it changes throughout its life cycle?

African Bullfrogs lay eggs in the water. In a few days, the eggs hatch and tadpoles emerge, swimming in the water. After about three weeks, the tadpoles begin to grow legs and lose their tails. As adults, they can live on land and in the water for about 20 years.

How does a gorilla change and grow throughout its life cycle?

A baby gorilla is born live after its mother is pregnant for about nine months. Babies spend their first 3-4 years with their parents. As they grow, they become “teenagers” until they are independent from their mothers at about 8-12 years. They eventually become adults and reproduce. Older gorillas may develop health problems and slow down.

What are the stages of a dog’s life cycle?

The first stage of a dog’s life cycle is when it is born as a live puppy (usually in a litter of several puppies). The puppy stage lasts as long as 1.5 years and then the dog enters its second stage of life – adolescence – when it grows to adult size. The third stage of a dog’s life is when it is an adult, and the fourth stage is the senior stage.
