

# CHAPTER 11

**I**n the last chapter, you learned how plants go through a natural cycle of life. It is not just plants that go through a life cycle! Animals do too!

Remember the definition of species? A species is a group of similar and related organisms. There are so many different species in the world that scientists have grouped them together by their similar traits. Most of the animal species can be placed into one of six different groups:

**Reptiles**

**Amphibians** ("am-fib-ee-anz")

**Fish**

**Birds**

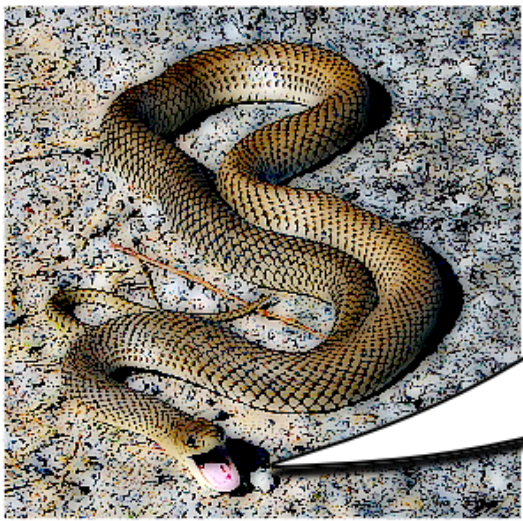
**Mammals**

and **Insects**



This week, you will be exploring three different kinds of animals:

Our first stop.....**Reptiles!**



A **REPTILE** IS AN ANIMAL THAT HAS ROUGH DRY SKIN AND IS COVERED IN SCALES (SCALES ARE THIN, FLAT AND HARD PLATES). ALL REPTILES ARE COLD-BLOODED.

BEING **COLD-BLOODED** MEANS THAT THEIR BODY STAYS ABOUT THE SAME TEMPERATURE AS THEIR HABITAT. SO, REPTILES NEED A **WARM** HABITAT IN ORDER TO SURVIVE.

There are thousands of different species of reptiles. Turtles, snakes and alligators are all different kinds of reptiles. Some reptiles live in habitats that have cold winters, but the rest of the year is warm. These species of reptiles would need to hibernate during the cold winter months.

Reptiles spend most of their time on land, but they can be found in the water. Think of an alligator...these organisms spend a lot of time in the water, but they can't breathe underwater! They breathe air like you and me, through lungs. Animals with lungs cannot breathe underwater.

Also...all reptiles are **vertebrates** ("vur-tee-bretts")

## Being a vertebrate means that you have a backbone!

Most animals, like reptiles, come from eggs which are made by the adult female. Inside each egg there is everything needed to form a new animal. Many eggs have a shell which keeps it from drying out. The shell also protects the new animal growing inside. Most young reptiles hatch from eggs, like turtles.



## Each species of reptile has a different life cycle. Let's look at the life cycle of one kind of reptile... the turtle!

Turtles lay eggs like most other reptiles. These are not the same kind of eggs you are used to seeing from the grocery store. These eggs have a softer shell. They feel almost like leather!



The baby turtle grows inside this egg until it hatches. The hatched turtle looks very much like its parents! This is an example of an inherited trait. The young turtle grows into an adult. An adult female turtle lays more eggs. This takes many years to complete! These new eggs will hatch into baby turtles that will start the cycle over again.

Our next stop.....**amphibians!** ("am-fib-ee-anz")



There are thousands of different species of amphibians.  
Frogs and toads are different kinds of amphibians.

An amphibian is an animal that has smooth, wet skin. These animals can also live in water and on land. Amphibians are all vertebrates and are cold-blooded. They are different from reptiles because of their wet skin.

## Another difference between amphibians and reptiles can be found in their life cycles. Let's look at the life cycle of a well-known amphibian... the frog!

A frog lays its eggs in the water. These eggs are covered in a clear jelly. The young frogs hatch from these eggs into the water.

Now is where it gets a little different from a reptile's life cycle...

Unlike reptiles, amphibians do not always look like their parents right after they are born. It takes time for them to develop into the same likeness of their parents!

The young frog looks and acts like a baby fish! The young frog is known as a **tadpole**. Tadpoles are baby frogs that have a tail for swimming and no legs. They also breathe air from the water where they live, just like fish!



*IT CAN GET CONFUSING AT THE TADPOLE PLAYGROUND...*

As tadpoles get older, they lose their tail and begin to grow legs...just like an adult frog! They also lose the ability to breathe air from the water. They grow lungs which allow them to breathe air from the sky! The adult female frogs can then lay more eggs and the cycle continues again!

Tadpoles share a very important trait with our next animals you will be studying...

Our last stop for this week..... **Fish!**

There are thousands of kinds of fish that exist in the ocean and in fresh water! A few different kinds of fish are trout, bass and sharks!

Fish (like reptiles and amphibians) are vertebrates and are cold-blooded. Fish live in aquatic biomes all over the world. Most of them have scales and a slimy skin. They also breathe air from the water, like tadpoles, their entire lives!

Like tadpoles, fish breathe air from the water with special body parts known as **gills**. Think of the gills as the "nose of the fish".



## The life cycle of a fish has a similar trait with reptiles! Let's take a look...

Most fish hatch from eggs. The species of fish that lay eggs tend to make a huge amount of eggs. Most of the time, the female fish cannot protect all of her eggs. So, many of the eggs are eaten by other organisms in the water! But because she makes so many eggs, many of them are not eaten. These eggs hatch into baby fish which look very much like the adults (just like baby reptiles!) These baby fish grow into adults and start the cycle over again.



Fill in the blanks with the correct letters. The words in the list on the right provide a clue to the answer.

1) S _ a _ es	flat and hard plates on the skin of a reptile
2) Re _ ti _ _ s	cold-blooded animals with rough and dry skin that is covered in scales
3) Ta _ _ ol _	a young frog
4) F _ sh	cold-blooded vertebrates that live inside the aquatic biome
5) G _ ll _	special body parts on fish that allow them to breathe air from the water
6) Co _ d- _ _ o _ ded	an animal whose body stays about the same temperature as their habitat
7) V _ _ t _ br _ tes	an animal which has a backbone
8) _ _ phib _ ans	cold-blooded vertebrates with smooth wet skin

Match the words in the first column to the best available answer in the second column.

- |                    |   |
|--------------------|---|
| _____ Reptiles     | 1) cold-blooded vertebrates that live inside the aquatic biome              |
| _____ Amphibians   | 2) an animal which has a backbone   |
| _____ Fish         | 3) flat and hard plates on the skin of a reptile                            |
| _____ Scales       | 4) special body parts on fish that allow them to breathe air from the water |
| _____ Cold-blooded | 5) a cold-blooded animal with rough and dry skin that is covered in scales  |
| _____ Vertebrates  | 6) a young frog   |
| _____ Tadpole      | 7) an animal whose body stays about the same temperature as their habitat   |
| _____ Gills        | 8) cold-blooded vertebrates with smooth wet skin                            |

# Compare and Contrast

the

## Reptiles and Amphibians

<b>Compare</b> (things that are the <b>same</b> between the two animals)	<b>Contrast</b> (things that are <b>different</b> between the two animals)