

CHAPTER 12

Last week you explored the world of reptiles, amphibians and fish! Remember, every species in the world has their own special cycles, traits and abilities! If all of these facts were written down in this book, it would be the...

Largest book in the world!

It would take you your entire life to read all of the pages! So what does that mean to you? It means there are a lot of different species out there! And each of them is different! Pretty cool, huh?



This week, you are going to look at three more kinds of animals:

Birds, Insects and Mammals

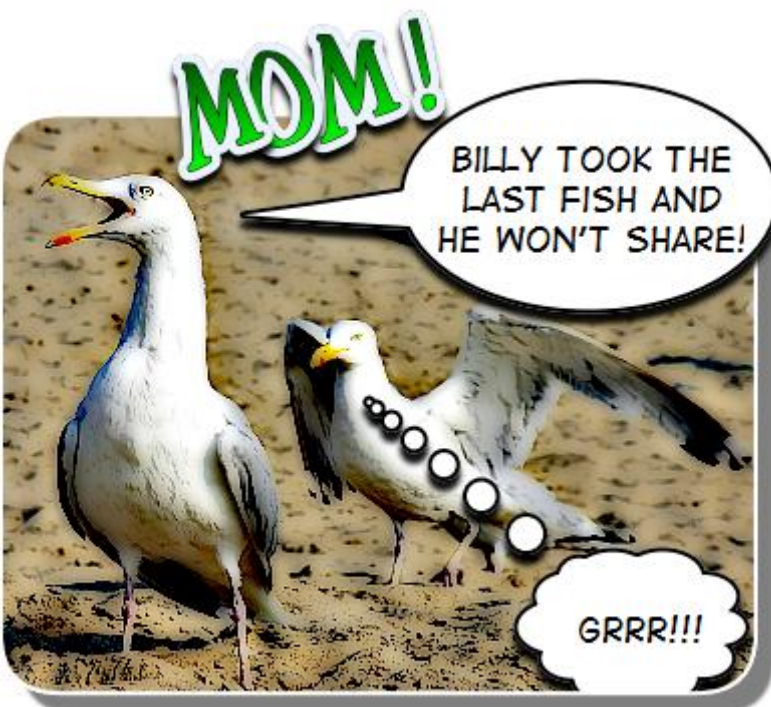
Our first stop for this week..... **Birds!**

There are all kinds of birds that exist in the world! A few different kinds of birds are hawks, eagles and chickens!

Birds (like reptiles, amphibians and fish) are vertebrates. However, birds are different from these animals because they are **warm-blooded**.

Being warm-blooded means that the organisms body temperature stays the same, even if its habitat is very cold! In order to keep your body temperature the same, a warm-blooded animal uses some of its food to make energy to keep it warm.

The body temperature of a bird is helped by another trait... feathers! Birds are covered in feathers. This helps to keep them warm and, for some birds, to help them fly!



Another trait that birds have is their beaks. Beaks are used for protection from other organisms and to get food. Every species of bird have their own size, shape and color of beak.

The life cycle of a bird is similar to many other animals you have studied.

Birds lay eggs into a nest. These eggs have a hard shell. Most eggs are protected by at least one of the parents before they hatch. When the baby bird hatches, it looks very similar to its parents. The parents also bring food and protect the babies until they grow into an adult. The new adult female bird lays more eggs (just like reptiles, amphibians and fish!) Once the eggs hatch into baby birds, the cycle begins again!

Our next stop for this week...

**Bears, dogs,
horses and
people are
all
mammals!**



Mammals (like birds) are warm-blooded vertebrates. We breathe air through our lungs. Mammals also have fur or hair to protect us and keep us warm.

Unlike the other species you have explored so far, female mammals make milk to feed their babies. Think of a cow... A cow makes milk to feed her babies.

Mothers play a stronger role in the life cycle of a mammal. Let's take a look...

Most mammals do not hatch from eggs. The animal is "born live. If an animal is "born live", it grows inside the mother's body until it is born. The baby looks similar to the parent. The mother produces milk to feed the baby and usually protects and trains the baby until it is an adult.

As an adult, the female can have babies once again. And the cycle continues...

You are so used to seeing mammals you may think that most animals are mammals.

But that is not true!

Our last stop for this week takes us to a group of animals that has the most kinds of species...

Insects!

There are so many different kinds of insects even scientists have not found them all! You can see many insects every day! Butterflies, ants and grasshoppers are just a few examples of insects.

POOR CHOICES:



Until now, all of the animals you have been reading about have been vertebrates. This means that they have a backbone. The backbone, which is part of the animal's skeleton, is found inside their bodies. When the skeleton is found inside the body, it is known as an **endoskeleton** ("en-do-skell-uh-ton").

An insect does not have its skeleton inside its body...
...it is on the **outside** of its body!

Having your skeleton on the outside of your body is known as an **exoskeleton**.

An insect has three different body parts:

Head – I think you know what this is for!

Thorax ("thor-axe") – This is where you will find the legs and wings

Abdomen – This is the last part of the insect.

If you think about the body parts of an insect like a train: The head would be the engine, the thorax would be the freight cars and the abdomen would be the caboose!



An insect also has **six** legs. That's right, six!

Every species of insect has its own life cycle! However, many of these insects have the same kind of cycle...

Most insects go through three (sometimes four) stages of growth in their life cycle. Nearly all of them begin as an egg.

We will be looking at the life cycle of a moth as an example today!

Insect eggs can be found anywhere: under the water, in the ground, on your food (yuck!!). But... moth eggs are usually found on leaves and branches of trees. This is the **first** stage of growth for most insects.



LARRY WAS GOOD AT "HIDE AND GO SEEK" EVER SINCE HE BECAME A LARVA.

The **second** stage of growth begins when the egg hatches. The young insect is called a **larva** ("lar-vah") and it spends much of its time searching for food! The larva of a moth is known as a caterpillar.

The **third** stage of an insect's life cycle is known as the **pupa** ("pew-paH"). At this time, the larva has stopped eating and forms a protective covering around itself. An example of a pupa would be a **cocoon** ("cuh-coon"). A cocoon is the pupa for a moth! If you were in a cocoon, it would feel like being wrapped up in a thick blanket.

Inside the cocoon, the pupa slowly changes from a caterpillar into a moth. When the insect has completely changed, it comes out of its cocoon. At this time, the **fourth** stage of the moth's life cycle begins. This is the **adult** stage.

In time, the adult female can lay more eggs to repeat the cycle all over again.



There are so many different species of animals and plants and life cycles that it is not possible to list them all here!

Also, each of these species has their own life cycle. Just remember that each species' life cycle is a little bit different from each other.

Unscramble the words below:

1. olrbwdodmea _____

2. uapp _____

3. avral _____

4. ssitnec _____

5. sdbri _____

6. noococ _____

7. mamsaml _____

Write the definitions for each word:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

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

- | | |
|--------------------|---|
| _____ Birds | 1) warm-blooded vertebrate animals which are covered in feathers |
| _____ Insects | 2) warm-blooded vertebrates with fur or hair; a female mammal makes milk to feed her young |
| _____ Mammals | 3) the second stage of growth in an insect's life cycle; for a moth this would be the caterpillar |
| _____ Warm-blooded | 4) small organisms with six-legs and an exoskeleton |
| _____ Larva | 5) the third stage of growth in an insect's life cycle |
| _____ Pupa | 6) the name for the pupa of a moth |
| _____ Cocoon | 7) an organism whose body temperature stays the same even if its habitat is very cold |

Unit Three review

Label the numbers with the correct parts of the plant.



1. _____

2. _____

3. _____

4. _____

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

- | | | |
|-------|------------|--|
| _____ | Birds | 1) warm-blooded vertebrates with fur or hair |
| _____ | Fish | 2) warm-blooded vertebrate animals which are covered in feathers |
| _____ | Mammals | 3) cold-blooded vertebrates that have rough, dry skin |
| _____ | Reptiles | 4) cold-blooded vertebrates that live inside the aquatic biome |
| _____ | Insects | 5) cold-blooded vertebrates that have smooth, wet skin |
| _____ | Amphibians | 6) this group has the most species and has an exoskeleton |

Be certain to go over your definitions for the test!