

LESSON 3 GROWING UP IN THE ANIMAL WORLD

In the last two chapters we learnt about plants, photosynthesis, different types of plants etc.

But I know, that you kids are equally, if not more, fond of animals than plants.

It's very interesting to learn about animals.

So, in Chapter Three we shall learn about Animals.

In Class Three, you learnt that all living things have babies. They reproduce.



Children, you all know all living things grow, become old and then die.

This is called the “Life Cycle”.

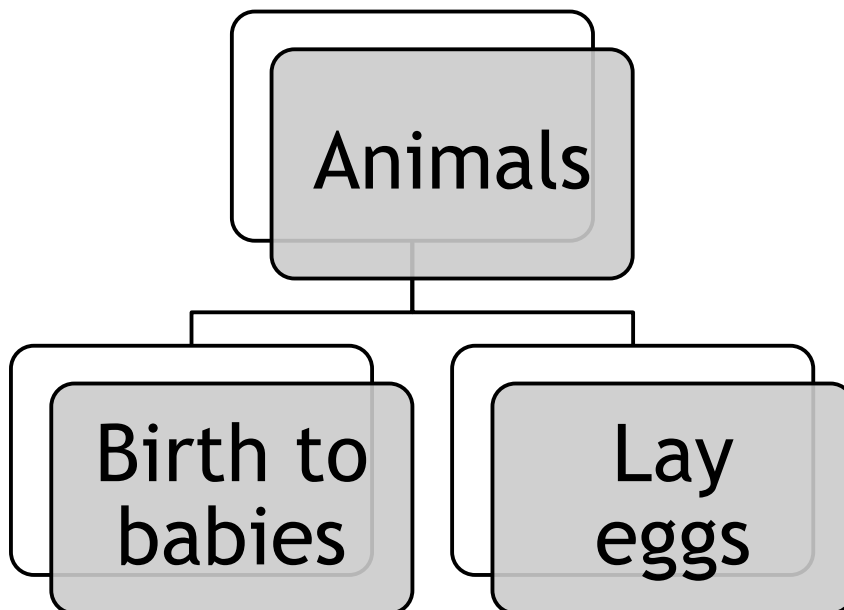
All living things produce young ones like themselves (except some animals) so life on Earth can continue.

You would all have seen a young puppy, how it runs around it's mother when it is very young, then it grows up and has babies of its own, grows old and then passes away when it is very old. This is the “Life Cycle”.

LIFE CYCLE



REPRODUCTION



Animals reproduce in two ways.

Some animals give birth to babies.

Some animals lay eggs. These eggs hatch, i.e. break open, and from these eggs, babies are born.

E.g. Lions, Humans, Cats....they all give birth to babies. Hens, pigeons, most fishes....they lay eggs from which babies hatch.

MAMMALS



❖ Animals which give birth to young ones and feed them their milk are called mammals.

❖ Cow, dog, lion, tiger and bear are some of the examples.

❖ Mothers feed their babies with their own milk.



❖ Some of them cannot even walk.

❖ Their mothers take care of them and protect them till they learn to look after themselves.



Like you kids..... When you were born, your mummy fed you, looked after you, took care of you, other family members played with you, taught you to speak, eat and walk until you learned to look after yourself.

See old photographs and videos of your childhood





Some mammals live in water!! Can you please tell me the name one mammal which lives in water.

Yes, you guessed it correctly.....
Whale!!

It suckles, i.e. feeds milk to it's baby even while moving in water.

Look at the picture

More about mammals

Bat is the only mammal that can fly.
Bats do not make nests.
The mother bat nurses it baby.

Students,
Bat gives birth to its young one.
They do not make nests.



Most of the bats
Give birth to only
one baby
at a time.
Mother bats
hold the pups
in their tail
pouches.

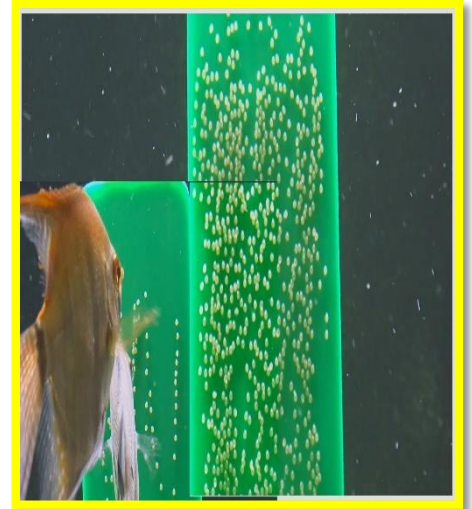


Other egg laying animals

Fish eggs do not have shells.

Baby fishes hatch out of the eggs

Fishes lay thousands of eggs at a time. This is because many don't survive. Some of the eggs are eaten by other big fishes and some of them don't get enough Oxygen and die.



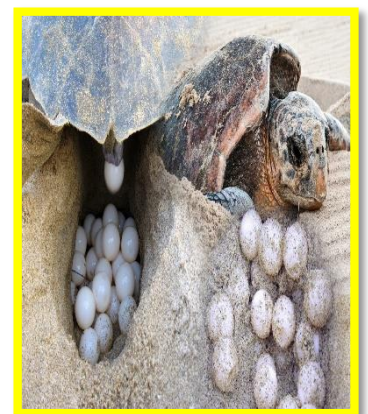
So **fishes lay** many **Eggs** so that some of them become baby fishes and grow into older fishes. Remember, we spoke of the Life Cycle. You would all have seen the animated movie "Nemo". You would have found it very interesting !!

TURTLES

Sea turtles dig holes in the sand on beaches and lay their eggs in them.

They cover the eggs with sand and leaves them alone to hatch.

The young ones find their way out of the sand and crawl to the sea.





One very famous annual event of turtle hatching in our country is the “Olive Ridley” turtles of Orissa.

CROCODILE

Some reptiles like the crocodile look after their eggs and their young ones.

Egg shells are thick so that they do not break when they are laid on land.

Crocodiles dig shallow pits in sandy riverbanks to lay their eggs.



The mother covers the eggs with sand and guards them.

When the babies hatch, the mother digs them out.



Sometimes she carries them in her mouth or on her back.

Why birds make nests?

- Most birds build nests to lay eggs.
- The female bird lay eggs.
- Nests keeps the eggs and baby birds safe.



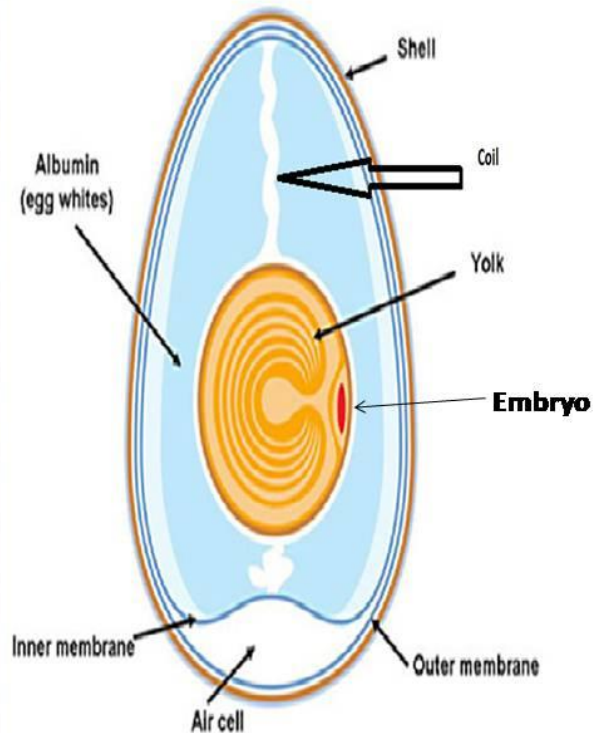
Why birds make nests?

Birds build nests when they want to lay eggs. A nest keeps the eggs and baby birds safe, just like we all have houses and stay at home to protect us from the heat, cold and rain.

Structure of egg

The egg of a bird has a hard shell to protect the chick growing inside. The shell has lots of tiny holes.

In the centre of the egg is a yellow portion called the yolk. At its top is the developing baby called the embryo. The embryo or the unborn chick lies in the yellow part of the egg called the yolk.



The albumen which is the watery white of the egg protects the embryo. It provides water and protein to the embryo. The embryo requires air for breathing. The air sac provides to the developing chick for breathing. The inner part is protected by membrane.

HOW DOES THE CHICK HATCH

- It takes **21 days** on average for an egg to hatch



After the eggs are laid, one of the parent birds usually the mother sits on them to keep them warm. This is called incubation. The mother keeps the eggs warm by keeping them under it and covering it with its body feathers. The baby birds start growing inside the eggs. After a few weeks when the baby birds are fully developed they break open the shell and come out. The parent bird feed and protects the young ones until they can look after themselves.

It takes 21 days on average for an egg to hatch once incubation begins.

FROGS



- ▶ Frogs spend a lot of time on land.
- ▶ But they lay their eggs in water.
- ▶ These eggs are also covered with jelly
- ▶ Female frog lays hundreds of egg at a time.

Frogs are amphibians i.e they live both, in water and on land. They are known for their jumping abilities, (jumping from place to place). They are famous for the croaking sounds that they make(You all know what sound frogs make). They have bulging eyes(big, round eyes) and slimy skin (i.e. skin which feels oily when you touch it)



They live all over the world and there are more than 6,000 species of frogs.



Frogs are small, tail-less animal. Almost all frogs have long back legs and short front legs, a flat head, and body with no neck. Adult frogs have no tail... Most frogs are green or brown, but some have colorful markings.

Why do the frogs lay eggs in water?
Ans. Frogs lays its eggs in water to prevent them from getting dried up.





Another reason behind frogs to lay their eggs in water is that the young tadpoles that come out after hatching have gills as the only breathing organ that requires them to swim under water to breathe.

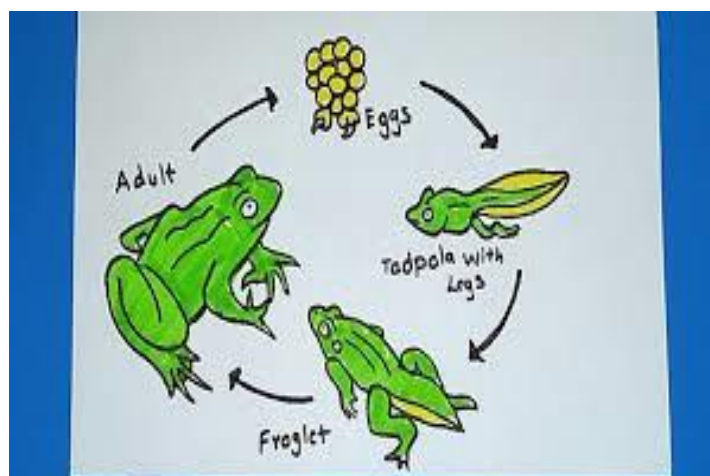
Look at the life cycle of frog. There are four stages .

First stage:- A female frog lays hundred of eggs at a time in a lake or pond.

Second stage:- Tadpoles hatch out of these eggs. They look like fish and swim in the water.

Third stage:- After few weeks the tadpoles start to grow legs. Their tails become shorter and shorter and finally disappear.

Fourth stage:- Over time the tadpoles change into adult frogs. They don't have tail. It can live on land. And it can reproduce after a few years.



COCKROACH

Cockroaches have been around since the time of dinosaurs! A cockroach can live almost a month without food.

A cockroach can live about two weeks without water.

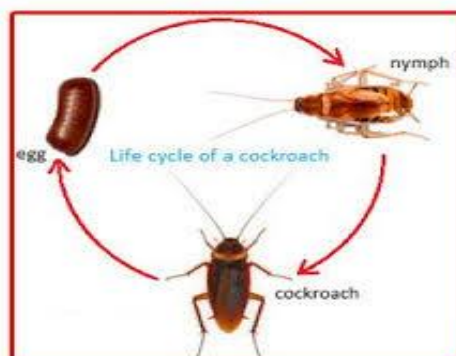


A cockroach can live for up to one week without its head!

Cockroaches can hold their breath for up to 40 minutes!

Cockroaches can run up to 3 miles an hour.

Life cycle of cockroach



- ▶ Cockroach pass through three stages in their life cycles.
- ▶ The baby cockroach that hatches out from an egg looks like the adult cockroach except that it does not have wings.

- ▶ It is called nymph. It shed its skin several times and changes into an adult.
- ▶ The shedding of old skin is called moulting.

Butterfly



Butterflies are insects. They have six legs, a set of antennae, and three parts to their body (the head, thorax, and abdomen).

Butterflies have four wings. Butterflies often have brightly coloured wings with unique patterns made up of tiny scales.

Most butterflies feed on nectar from flowers.

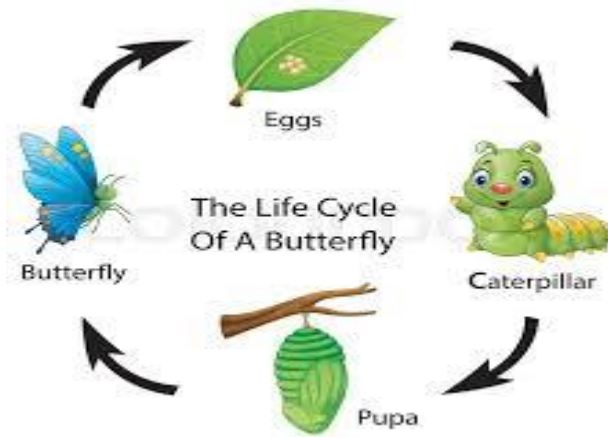


life cycle of cockroach

Butterflies and moths go through four stages in their life cycle before becoming adults. The female butterfly lay eggs on the leaf. The eggs hatch into young ones called larvae. They look like worms. The larva of a butterfly is called a caterpillar.

The caterpillar eats the leaves and grow quickly. It then forms a shell called chrysalis around the body. This stage is called the pupal stage. Inside the chrysalis, the caterpillar slowly changes shape. An adult butterfly finally comes out of the chrysalis.

LIFE CYCLE OF BUTTERFLY



Stage 1. Butterflies lay eggs on leaves.

Stage 2. The young ones that comes out of the eggs called larvae. The larva of a butterfly is also called a caterpillar. It eats the leaves and grows big.

Stage 3 The caterpillar makes a cocoon around itself, also called Chrysalis. It is called pupal stage. Inside the cocoon, the caterpillar keeps changing. In a few weeks it comes out of the cocoon.

Stage 4. It has changed into beautiful butterfly.

Recap

- + Mammals are animals which give birth to their young ones.
- + Some mammals lay eggs. Their life cycles have different stages.
- + Some animals take care of their young ones. Some do not.
- + All insects lay eggs. The young one of insects pass through several stages before changing into adults.
