



**CLICK HERE TO ACTIVATE**

**LESSON**  
PART 2



## LESSON-4

## REPRODUCTION IN LIVING THINGS

### BEFORE WE PROCEED

- ❖ What are mammals?
- ❖ Do mammals lay eggs?



### SAY ALOUD

reproduction, exact, spawn, fry, tadpole

Let us find out more about reproduction in living things

All living things are born from their parents. They gradually grow big and finally become old and die.

All living beings have a special ability to produce more of their own kind. This unique feature is called reproduction. Babies are not exact copies of their parents. But they have many features that are similar.



### Do you know?

A house fly lays 1000 eggs at a time.



Let us see different types of reproduction in animals :

#### 1. Some animals directly give birth to their young ones

Most babies grow inside their mothers until they are born. A baby dog looks like its mother. Dogs, cats, cows, goats and human beings etc. carry their babies within their body till they are fully developed. They produce milk to feed their babies. They are known as mammals.

### Do you know?

Some mammals lay eggs. e.g.

1. Spiny anteater
2. Duck-billed platypus





## 2. Animals which lay eggs

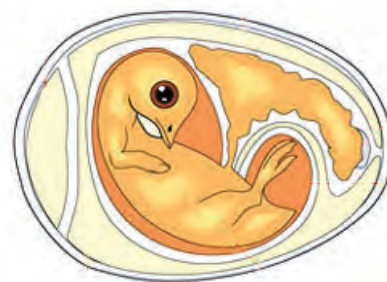
Animals like fish, frogs, reptiles, birds and insects reproduce by laying eggs. The baby comes out from the egg. A baby chick would come out from a hen's egg. A baby duck would come out from a duck's egg. They come out when the eggs hatch. Animals that come out from eggs, start their life outside the bodies of their mother.



Nest and eggs



Egg shell



Development of chick

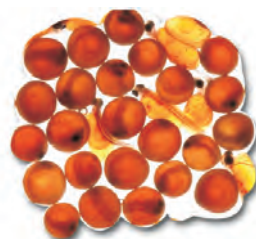
### *Do you know?*

A silk moth lays about 200 eggs at a time.



### Fish

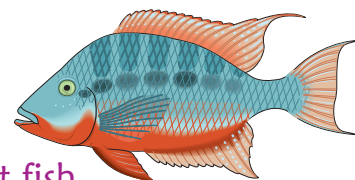
A fish lays a large number of eggs at a safe place on water. The eggs of a fish are called spawn. An egg hatches into a young baby fish called fry. The fry grows into an adult fish. Out of large number of the eggs, only a few hundreds grow into baby fish. Many are eaten by big fish and some are crushed by fast water current.



Eggs



Fry (baby fish)



Adult fish

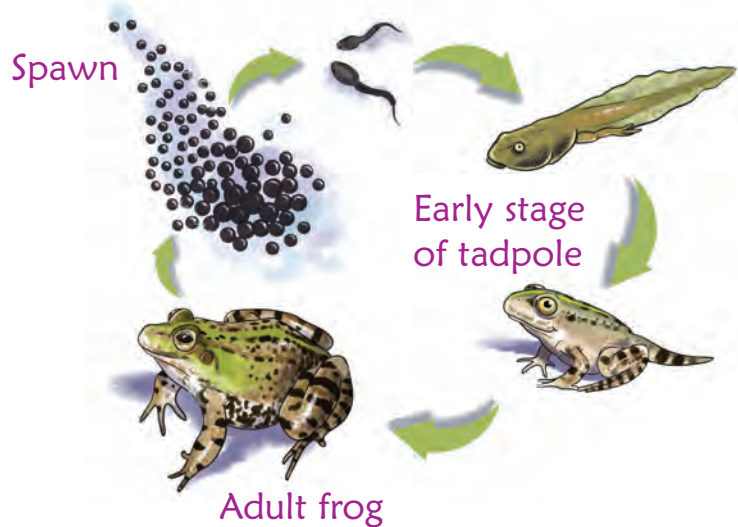
### *Do you know?*

Dolphin is a mammal that looks like a fish but feeds its young ones with milk.



## Frogs

A frog lays its eggs in water. The eggs of a frog are called spawn. The young one of a frog that comes out of the egg is called a tadpole. It has a tail. Tadpole resembles a fish. The hind legs of the tadpole appear first. Then the front legs appear. Slowly the tail disappears and it becomes an adult.



### *Do you know?*

Some snakes directly give birth to young ones.

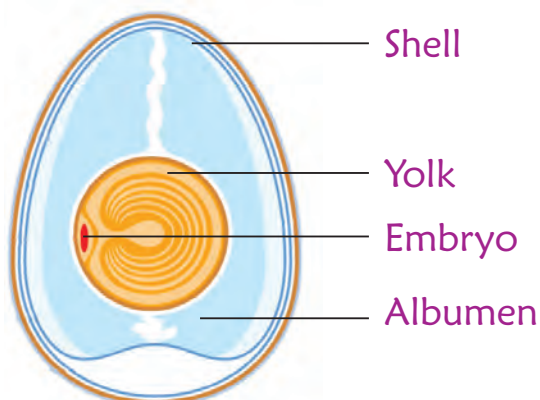
## Reptiles

Lizards, crocodiles, snakes, turtles and tortoises are reptiles. They lay eggs. Their eggs are covered by a thin shell. The eggs are not incubated by the parents. Rather, they get their warmth from the sun.



## Birds

All birds such as crow, sparrow, hen, eagle, etc reproduce by laying eggs. The female birds lay eggs in nests. They sit on the eggs to keep them warm till they hatch. This is known as incubation.



A bird's egg has hard outer shell. Inside the shell there is a sticky liquid called albumen. Inside it, there is a yellow liquid called yolk. Inside the yolk is a growing birdie (chick) called embryo.

The embryo develops into a chick only when the egg is kept warm. After a few weeks, when the baby birds are fully developed they break open the shell and come out. This is known as hatching.

### *Do you know?*

The biggest egg in the world is ostrich's egg. It weighs about 1.7 kg.



Adult Cockroach



Eggs



Nymph



## Insects

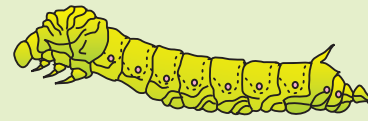
All insects lay eggs. Larva comes out of an egg and grows into a pupa. Then it grows into an adult.

Insects like grasshoppers and cockroaches have three stages in their life cycle.

When the eggs of cockroach hatch, the young insect that comes out is called nymph. As it grows, it sheds its old skin. This shedding is known as moulting. After moulting several times, a nymph becomes an adult.

### *Do you know?*

A tiny caterpillar has 2000-4000 muscles, six times as many as you have.



## Parental care

Many animals take care of their babies even after they are born. The highest degree of parental care is seen in mammals. The mammals provide love and protection to their young ones until they are able to look after themselves. The baby birds that hatch out of the eggs are not capable of flying. The mother and father birds feed the babies, for some days.



Homes are prepared to keep the babies safe from heat, cold, rain and enemies.

Human beings give the greatest love and care to their young ones. Young ones receive food, shelter and protection from their parents. The child also receives love and care from the family.





## Key Ideas

- ★ *The process of producing one's own kind is known as reproduction.*
- ★ *Mammals give birth to young ones.*
- ★ *Most fish have babies by laying eggs.*
- ★ *All birds lay eggs. They incubate their eggs.*
- ★ *All insects lay eggs.*
- ★ *Parental care is seen in various animals.*

## LET'S WRITE TOGETHER



### A. Answer these questions :

1. What is reproduction ?
2. How do birds hatch their eggs ?
3. Describe the structure of a bird's egg with a diagram.
4. Describe the stages in the life-cycle of a frog.
5. Describe parental care in human beings.
6. What do you mean by 'moulting' ?

### B. Complete the sentences :

1. The animals that give birth to babies are \_\_\_\_\_.
2. The shedding of old skin in insects is known as \_\_\_\_\_.
3. The greatest parental care is seen in \_\_\_\_\_.
4. The yellow liquid in an egg is known as \_\_\_\_\_.
5. Two animals which lay their eggs in water are \_\_\_\_\_ and \_\_\_\_\_.

### C. Write 'T' for True and 'F' for False :

1. The dog lays eggs.
2. Mammals give birth to their young ones directly.
3. Some mammals lay eggs.
4. Life-cycle of a cockroach has four stages.
5. The baby of the frog is called a larva.




**D. Match the following :**

- |            |         |                 |
|------------|---------|-----------------|
| 1. Nymph   | [     ] | (i) Fish        |
| 2. Fry     | [     ] | (ii) Frog       |
| 3. Chick   | [     ] | (iii) Cockroach |
| 4. Tadpole | [     ] | (iv) Dog        |
| 5. Puppy   | [     ] | (v) Hen         |



**LET US DO**

**Draw diagram to show the life-cycle of a frog :**



**Fun Activity**

**Visit a poultry farm and observe the mother hen sitting on her eggs. Observe and note in your notebook, how the mother hen looks after the chicks.**

**GLOSSARY**

- Gradually - slowly, over a long period of time
- Ability - a level of skill or intelligence
- Mammal - any animal that gives birth to babies directly and feeds its young ones on milk from its own body
- Current - the movement of water in the sea or a river
- Hatch - to come out of an egg
- Nymph - young one of a cockroach
- Moulting - to lose feathers or hair or skin before new feathers or hair or skin grow