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All living things grow with time, get old and finally die. All living things produce young ones of their own kind. The process by which new living beings, resembling their parents are produced is called reproduction.

Animals reproduce in different ways.

Some animals reproduce by giving birth to young ones of the same kind.

Some animals reproduce by laying eggs. Human babies, kittens, puppies, calves etc. are born. Tadpoles, chicks, ducklings etc. hatch from eggs.



A cat with kittens



A bird with its eggs

#### **Mammals**

The animals which reproduce by giving birth to young ones of their own kind, are called mammals. Mammals have some common features :



A cow with its calf



A monkey with its baby

- They reproduce by giving birth to young ones of their own kind.
- They are warm-blooded, their body temperature remains nearly constant.
- They have hair on their bodies.
- They feed their young ones with their own milk. Female mammals have breasts on their bodies to feed their young ones.



#### **ANIMALS THAT LAY EGGS**

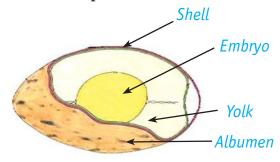
#### Birds

# Do You Know?

The habit of sitting on their eggs by some animals to keep the warm is called incubation.

Birds reproduce by laying eggs. The mother bird hatches the eggs till the young ones come out of them. The young ones are of the same kind as the parent bird.

Birds like crow, sparrow, eagle, hen and peahen lay eggs. Many eggs have hard shells. Inside the shell is the **albumen** (white of an egg). Inside this is the yellow round yolk. The chick forms and grows inside the yolk. The growing chick is called the **embryo**. Embryo uses the yolk as its food. The embryo developes into a chick only when the egg is kept warm.

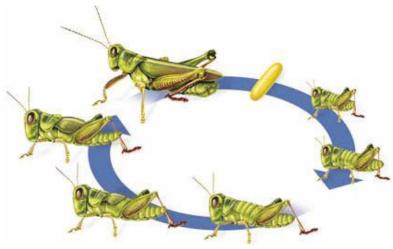


Internal structure of an egg

#### OTHER EGG LAYING ANIMALS

### Snakes, Turtles, Lizards and Crocodiles

Not only birds, but raptiles like snakes, turtles, lizards, crocodiles etc. also lay eggs. Their eggs are protected by a shell, too. Their eggs get warmth from the sun. The shells of their eggs are not hard. They are leathery.



Life cycle of a grasshopper

Insects such as grasshopper and cockroaches also reproduce from eggs. They have three stages in their life-cycle. The baby which comes out of the egg is almost like a full grown insect, called a nymph. Nymph becomes an adult after moulting many times.

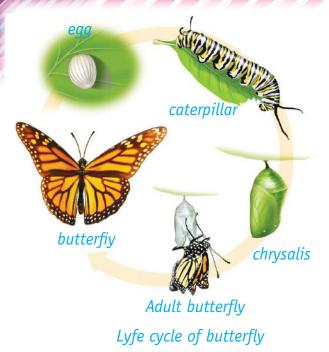
Moulting means shedding of old skin. It is that process in which a nymph sheds its skin before a new one grows.

Other insects like the housefly, butterfly and silk moth show four stages in their life cycle.

The eggs hatch into wriggling creature called larva.







The larva of a butterfly is called a caterpillar. The larva looks very different from the parent insect. The larva is usually very active. It eats a lot and grows fat. After sometime larva stops eating and makes covering itself, known as cocoon. This resting stage is known as pupa. Inside the cocoon pupa turns into adult, after which the shell of the pupa (cocoon) is broken and comes out a butterfly.

## Do You Know?

A tiny caterpillar has 2,000—4,000 muscles, sixtimes as many as you have.

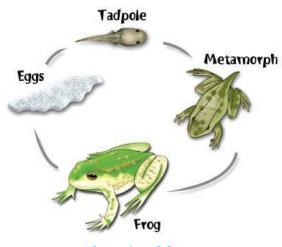
## Frog

Frogs also lay eggs, but their eggs are protected by a thick jelly. Eggs in jelly do not dry up. Jelly protects them from enemies.

A frog's eggs hatch into tadpoles. Tadpoles grow into frogs.

A tadpole is quite different from a frog.

Aquatic animals such as fish lay eggs. When they are out of their eggs, they are very small, and are called frog. The frog grow to become adult frog.



Life cycle of frog

#### **PARENTAL CARE**

All mammals look after their young ones right from the time of birth. Motherland feeds the young ones her own milk.

They protect their youngones from their enemies. The parent animals teach them to find thier own food. Birds also look after their young ones. They feed them and protect them from their enemies until they are able to fly and find their own food.



A bird with its young ones

Our parents also look after us and take care of our needs. This is called parental care. Animals such as snakes, lizards, frogs and insects do not take care of their young ones. They only lay their eggs in a safe place.

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# Know the Keywords:

Embryo : Unborn creature in the early stages of development.

Mounting : Skin to make way for new growth.

Wriggling : Move with a twisting action.

# Point to Remember

- All living things grow with time, get old and finally die.
- Some animals reproduce by giving birth to young ones of the same kind.
- Some animals reproduce by laying eggs.
- All mammals have some common features.
- They reproduce by giving birth to young ones of thier own kind.
- Reptiles like snakes, turtles, lizards, crocodiles etc. also lay eggs.
- All mammals look after their young ones right from the time of birth.
- Animals such as snakes, lizards, frogs and insects do not take care of their young ones.

# EXERCISE TIME

	CACICISC TIME			
Α.	Multiple choice questions (MCQs).			
	Tick (✓) the correct option:			
	1. The animals which reproduce by giving birth to their own kind are called	·		
	a. tadpoles			
	2. The growing chick is called			
	a. shell b. embryo c. larva			
	3. Snakes, lizards, crocodiles also lay			
	a. larva b. eggs c. puppies			
	4. Moulting means shedding of skin.			
	a. dry b. old c. new			
	5. Insects like housefly, butterfly show stages.			
	a. two b. three c. four			
B.	Fill in the blanks :			
	1. All living things with time.			
	2. All mammals have some common			

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- 3. The larva of a butterfly is called a \_\_\_\_\_\_.
- 4. Frogs also lay \_\_\_\_\_\_.
- 5. \_\_\_\_\_ animals, such as fish lay eggs.

#### C. Write 'T' for true and 'F' for false statements:

- 1. All living things reproduce their own kind.
- 2. Young ones of a cat are called puppies.
- 3. The white part inside an egg is called albumen.
- 4. Eggs of the frog are the hardest.
- 5. A larva of a butterfly is called fry.

#### D. Match the following:

- 1. Pupa
- 2. Whate
- 3. Albumen
- 4. Birds
- 5. Frog

- a. Eggs
- b. Cocoon
- c. Spawns
- d. Jelly-like
- e. Mammal

#### E. Answer the following questions:

- 1. What is reproduction?
- 2. What are mammals? Name any two features of mammals.
- 3. Name any four animals which lay eggs with hard shells.
- 4. Explain the life-cycle of butterfly.
- 5. How do mammals look after their young ones?

# Creative Work

- · Make a chart showing the different stages seen in the life of a butterfly :
- · Draw a line diagram of an egg and colour it. Also label each portion and mention the importance of each.

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