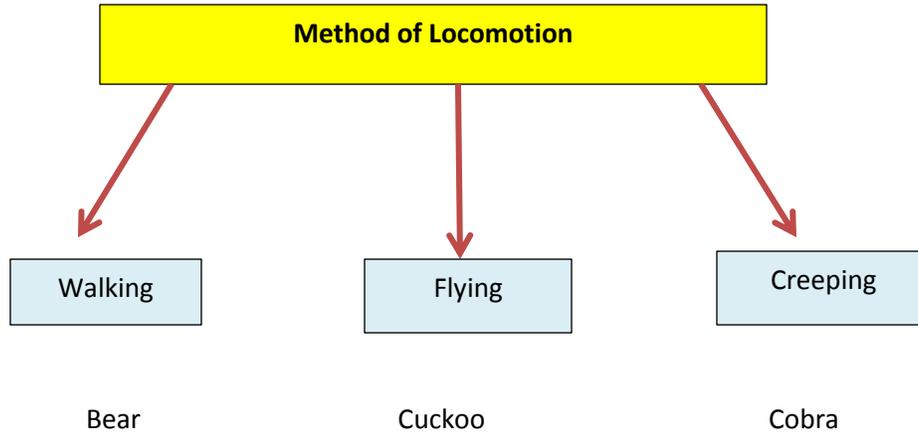




Resonating sound of larks and cuckoos,  
Herd of deer amidst ferocious bear,  
How freely they roam,  
In this park!  
Flocks of doves and parrots,  
Dancing peacocks,  
Lapwing with its wailing cry,  
And jungle fowl,  
Kingfisher with long beak,  
Shouted in fear of us.  
The green leopard,  
Terrible tiger,  
Ah! The fox,  
The cunning king.  
Venomous viper,  
Dreadful crocodile,  
And monitor with its scaly skin,  
Python and cobra  
Coiled near them.

- Classify the list of animals that you have written above into groups according to the features that they have in common.
- Ex: -



- What difficulties did you come across when grouping above animals?
- What are the occasions that the same animal falls into several groups?

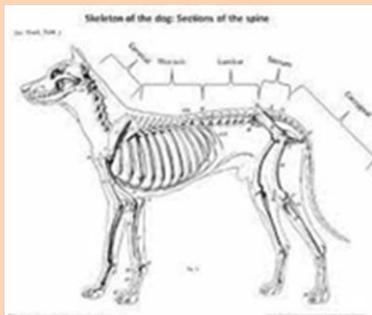
**Activity 2**

- ❖ Let us identify animals with backbone and without backbone.
- If you have seen or heard that the animals you identified in the song are having a column of bones that runs vertically downwards from the skull, classify them on the basis of presence or absence of such a column of bones.

With backbone	Without backbone

For your knowledge,

- The column of bones runs vertically downwards from the skull of animals is called the backbone or the vertebral column.



- Animals with vertebral column are called vertebrates and those without a vertebral column are called invertebrates.

### **Activity 3**

- ❖ Classify following animals as vertebrates and invertebrates





Vertebrates	Invertebrates

**Activity 4**

1. A picture of a forest is given below. Classify the animals in it as vertebrates and invertebrates.



**Vertebrates**

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**Invertebrates**

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**Activity 5**

1. Scenery from the sea is given below. Classify the animals in it into vertebrates and invertebrates.



**Vertebrates**

.....  
.....  
.....  
.....  
.....  
.....

**Invertebrates**

.....  
.....  
.....  
.....  
.....  
.....

**Activity 6**

1. The picture given below shows some animals that inhabit in an ecosystem associated with a pond. Classify the animals in it as vertebrates and invertebrates.



**Vertebrates**

.....

.....

.....

.....

.....

.....

.....

**Invertebrates**

.....

.....

.....

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.....

.....

.....

For your knowledge

Vertebrates can be divided into groups as follows

Fish, Amphibians, Reptiles, Birds, Mammals



**Pisces**



**Amphibia**



**Reptilia**



**Aves**



**Mammalia**

### Activity 7

- ❖ Let us identify adaptations that animals bear to suit the environment that they live.
- ❖ Tabulate the adaptations that the following animals bear for fulfilling their food requirements, surviving in habitats and ensuring their protection.



Tortoise



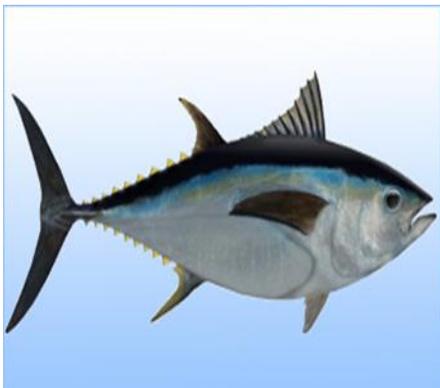
Tiger



Grasshopper



Porcupine



Fish



Cobra

Animal	Fulfilling Food Requirements	Surviving in the Habitat	Ensuring their Protection
<b>Tortoise</b>			
<b>Tiger</b>			
<b>Grasshopper</b>			
<b>Porcupine</b>			
<b>Fish</b>			
<b>Cobra</b>			

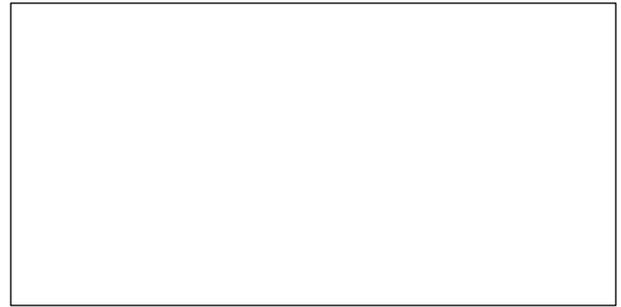
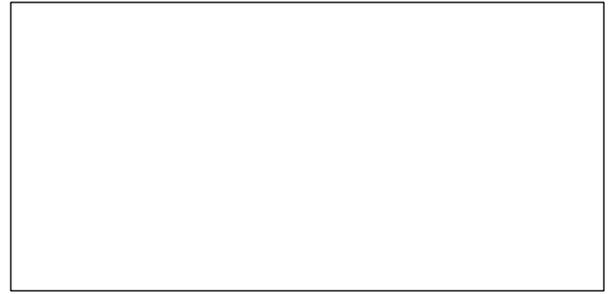
For your knowledge,

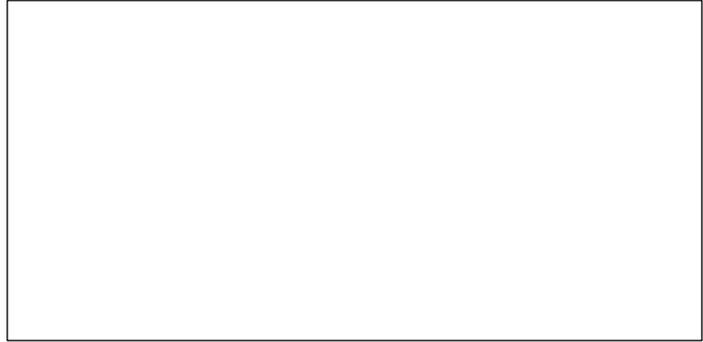
- ✓ The characteristics that the organisms bear in order to better suit the environment are known as **Adaptations**.
- ✓ Organisms show various adaptations to ensure their survival in the environment.
- ✓ Organisms bear different adaptations for fulfilling food requirements, surviving in the habitats and for their protection.

#### Activity 8

- ❖ Write down the adaptations of following animals.







For your knowledge,

- ✓ When the body colour of animals is similar to that of the environment, it is difficult to separately identify the animals from the environment in which they live. This phenomenon is known as **camouflage**.
- ✓ Because of camouflage animals,
  - Can protect themselves from predators.
  - Can easily find their prey.
  - Can survive in the environment in spite of the changes take place in it.

#### Activity 9

1. You might have seen animals that show camouflage in your surroundings. Give examples for them.

A large, empty rectangular box with a black border, intended for students to write their answers to the activity question.

2. Observe how the following animals have matched their body colour with the colour of the environment that they live. Identify the animals and describe how camouflage has become important to them in your own words.



1 .....



2 .....



3 .....



4 .....



5 .....



6 .....



7 .....



8 .....

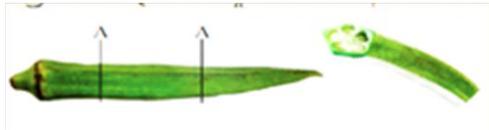
### Activity 10

- ❖ Observing the streamline shape of the body of some animals.

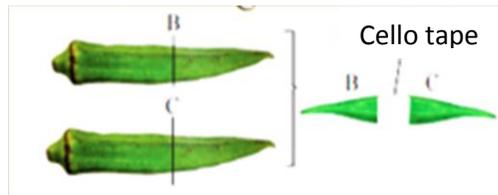
Things needed – 3 pods of okra, a knife, cello tape, a water tub or a tray

Method -

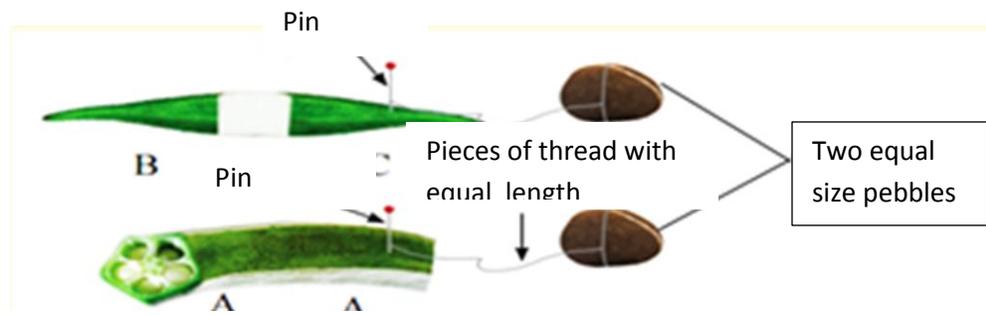
1. Cut the two ends of one pod of okra and obtain the rectangular middle part as illustrated in the diagram.



2. Take the two remaining pods of okra and cut the tips of them as shown in the diagram and fix the two tips with a piece of cello tape.



3. Fix a small pebble to each piece of okra you obtained in the previous steps with a piece of thread as illustrated in the diagram.



4. Allow the two pieces of okra you obtained to float on water in the tray or the tub as illustrated in the diagram.



5. Note that the piece of okra with streamline shape floats forward faster than the other.

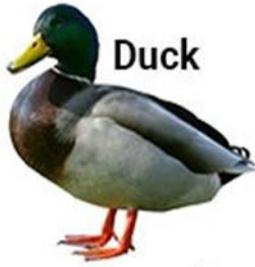


For your knowledge,

- ✓ When the shape of the body of organisms takes a streamline shape, locomotion becomes more efficient.
- ✓ Animals, that locomote in water or air, make use of the streamline body shape to overcome the resistance caused by the medium of locomotion.



Which animals possess streamline body shape? Select from those given below.



Duck



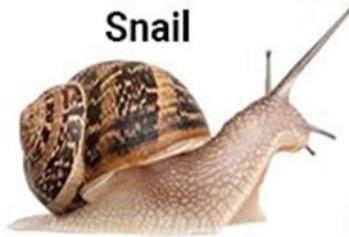
Kangaroo



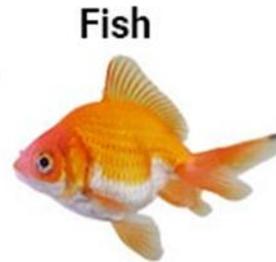
Human Being



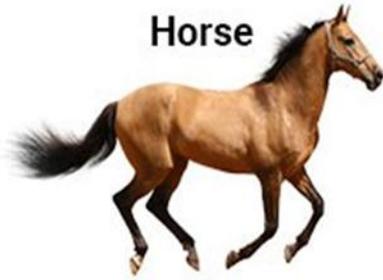
Snake



Snail



Fish



Horse



Cockroach

.....

.....

.....

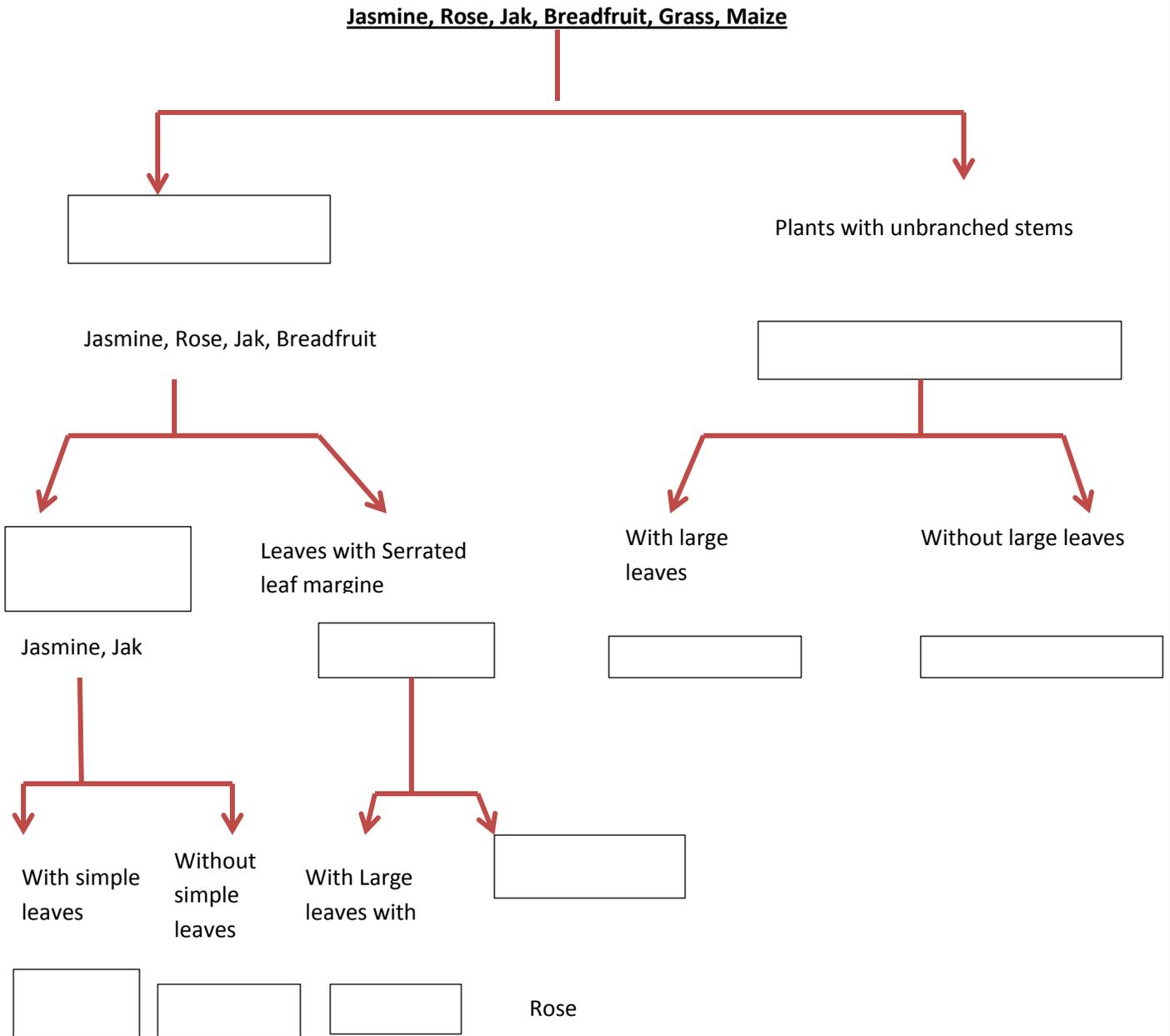
.....

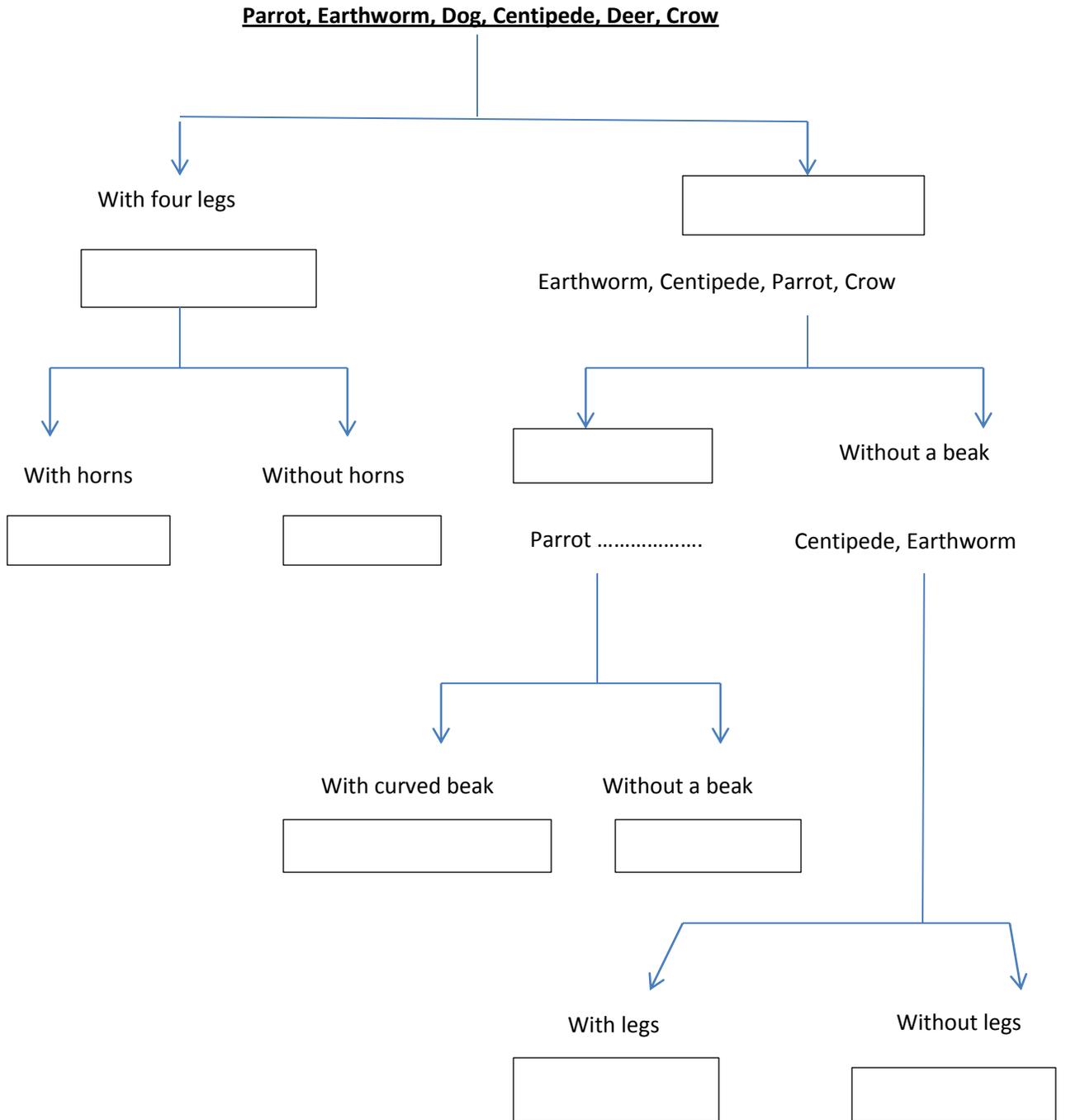
.....

Activity 11

❖ Let us make dichotomous keys.

Complete the following dichotomous key.





- Prepare a dichotomous key including the animals that you can see in your home garden.

For your knowledge,

- ✓ Classification of organisms on the basis of presence or absence of a certain characteristic is known as a dichotomous key.

## Summary

With vertebral column  
(Vertebrate)

Without vertebral  
column  
(Invertebrates)

Animals

Characteristics of  
animals to better  
suit the  
environment they  
live

Adaptation

1. Matching the body  
colour with the colour  
of the environment

Camouflage

2. Elongated body shape  
to overcome air and  
water resistance during  
locomotion.

Streamline Body shape