



Green Magic

Some plants are amazing due to their unique Characteristics.

Complete the sentences names and parts of plants with the help of the help list :

1. Belladonna is obtained from _____ .
2. Quinine is obtained from _____ .
3. _____ are obtained from roots.
4. Opium is obtained from _____ .
5. _____ is obtained from cinchona plant.
6. _____ is the painkiller obtained from poppy plant.
7. _____ is obtained from deadly nightshade plant.
8. _____ is obtained from coca.



Help List

Morphine,	Bark,	Roots,	Ginseng,
Cocaine,	Seeds,	Atropine,	Quinine

Let Me Answer

- a. Name any five trees or plants you see in your nearby park or garden.
- b. Which tree is known as the medicine tree?

Info-Bits

Rauwolfia Serpentina or Sarpagandha is used as an antidote to the bites of poisonous reptiles like snakes.

TEACHER'S NOTE

Help the students learn about various species of plants and trees. Tell them the importance and uses of trees and plants in daily life.



Types of Farming

The environmental conditions of the world are highly variable. Here are some types of farming:



1.

Co-Operative Farming : In this system, the farmers form a society. The land of the members is pooled together and every member works on the farm.

Extensive Agriculture : This method is practised in countries which are sparsely populated and have abundant land. The agriculture operations are done by machines.

3.



2.

Commercial Agriculture :

This method has all the farm work done by machines. It is a large scale form of agriculture which is carried on mainly in the grass lands of the temperate regions.



4.



Intensive Agriculture : In this type of farming system, crops are grown mainly for local consumption. If there is a surplus, then it is sold in the market. This type of farming is largely found in densely populated regions of monsoon Asia.



6.

Plantation Agriculture :

Plantation agriculture is a type of commercial farming where a single crop is produced in a very large estate using efficient and

scientific methods in tropical and subtropical regions. (Eg. Tea).

5.



Shifting Agriculture :

Shifting cultivation is an agricultural system in which plot of land

are cultivated temporarily, then abandoned while post-disturbance fallow vegetation is allowed to freely grow while the cultivator moves on to another plot.

Let Me Answer

- Which type of farming is most practised in India?
- Find out another name for intensive agriculture.

TEACHER'S NOTE

Explain to the students about various types of farming. Use pictures to make the learning more enjoyable.



In the garden

Help Ricky to go into the garden. Read the clues and find the words in the grid. Use the Help List for your reference.

S	W	S	A	L	A	D	I	G	S	Y	T
P	E	D	A	M	W	H	S	U	N	L	R
R	V	I	Z	V	H	D	H	U	P	D	A
I	D	P	F	E	E	L	O	Q	F	P	I
N	R	A	L	F	E	P	V	J	J	L	N
G	A	I	O	M	L	E	E	J	Z	A	R
Y	K	L	W	M	B	H	L	W	S	N	M
V	E	G	E	T	A	B	L	E	S	T	L
Z	R	Z	R	I	R	A	G	E	V	S	K
J	S	D	S	M	R	Y	Q	D	Z	H	R
T	M	K	V	I	O	J	C	S	O	I	L
R	O	Y	D	H	W	E	W	W	O	H	U



Clues

- These wild plants harm other plants in a garden.
- These are good for health and can be grown in your own garden too.
- Plants need plenty of this to go get water and grow.
- It is a cart with two handles and one wheel, used to move things around in the garden.
- This gives warmth and light to the plants.
- This is a healthy dish made of many raw vegetables.
- In this season, a number of flowers bloom.
- Trees, herbs, and shrubs are _____.
- It is a tool with a long handle used to move soil, sand and dirt.
- It is a sharp gardening tool which is dragged to loosen the soil before sowing the seeds.
- It is the process of making a hole in the garden.
- Plants get food and nutrients from here.
- This is another name for a bucket.
- These parts of the plant often small good.

Help List

plants	sun	vegetables
rain	flowers	rake
weeds	shovel	salad
pail	dig	spring
wheelbarrow		soil



Birds and Fishes

One of the most important reasons birds migrate is to find warm weather, where plenty of food will be available to feed their offspring, or babies and also want to make sure their offspring have safe shelter.

Complete the name of these migratory birds.

1. S__BER__ __N CR__NES are snowy white coloured birds and migrate during winter to India. These cranes are omnivorous and breeds in the arctic tundra of Russia and Siberia.
2. A__UR __ALCO__S are small raptor that breed in Siberia and migrate to Southern Africa. During migration in large flocks across North East India and over the Arabian sea, they feed around Doyang Lake in Nagaland in the evening or early in the morning during the winter season.
3. European S__AG__L__S migrate across a distance of thousands of kilometres to spend their winter in South Africa. They fly across the Sahara Desert and cover as much as 321 kms in a day.
4. The A__CT__C TE__N is a migratory bird that flies more than any other species. It sees more day light than others as it moves from its Arctic breeding grounds to the Antarctic non-breeding areas.
5. The __U__FS birds start its journey from Arctic Tundra region to the Himalayas, however, once the breeding season comes around again they move back to the Tundra to repeat the cycle all over again.
6. __L__ET__RO__T starts its journey from Europe & Alaska because it cannot cope with the freezing winters in Europe or Alaska. So during the winters, it comes to India and be spotted easily in Rajasthan; They travels back home in April, and looks for mates as the breeding season beckons.



Help List

Amur falcons, Bluethroat, Seagulls
Siberian Cranes, Arctic tern, Ruffs

Let Me Answer

- a. Name a bird which spent the boreal winter in India.
- b. Can you name an omnivorous migratory bird?

Info-Bits

Humming birds are the smallest migrating birds. They can travel as fast as 48 kph when migrating. They fly non-stop, which can be as far as 600 miles.

TEACHER'S NOTE

Introduce the topic about various types of migratory birds. Assist them in understanding different species of fish.



Species of Fish

Fishes live in water, breathe through their gills, their body is covered by shiny scales and swim by swishing their fins and tails. There are many species of fishes.

Identify the different types of fishes with the help of the Help List :

1.

It swallows water and increases in size to become too big to be swallowed. It is poisonous but eaten by people as a delicacy.



2.

It has lacy, fan-shaped fins. It looks delicate but its spines are deadly poisonous.



3.

It has a pencil shaped body encased in bony armour plates. The male incubates eggs in a pouch on his own body



4.

It has a large head, big eyes, sharp teeth, a long tapering body and a rat-like tail.



5.

It has dozens of tiny electricity sensing pits on its head. To hide from predators, it buries itself in the sand. It stays near the seabed.



6.

It is the largest predatory fish that lives in warm oceans. It can grow more than six metres.



Let Me Answer

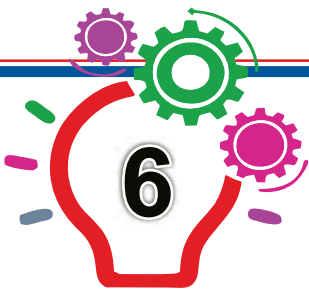
- Which fish has a pencil-shaped body?
- Which fish gets puffed up with water to scare other animals?

Help List

**Pipefish, Ratfish,
Lionfish, Puffer fish,
Shark, Ray fish**

Info-Bits

There are currently more than 33,000 species of fish, including both salt water and fresh water species.



Reptiles World

Reptiles are vertebrates that are cold blooded, have scales on their skin and lay eggs.

Fill in the blanks with the help of the Help List :

1. The _____ lizard can run short distance over water.
2. The _____ snake's body has a mixture of primitive and advanced features
3. The chameleon's tongue darts out so fast that it can reach its prey in less than _____.
4. The _____ is a crocodilian of the family Gavialidae and it has very long, narrow jaws, armed with about 106 to 110 teeth.
5. All _____ have their nostrils, eyes and ears on the top of the head.
6. _____ capture their prey live by hiding in ambush and then charging victims, although their primary food source is carrion.
7. The reptiles' eggs are protected from drying out in the heat by a _____ shell.
8. The skin of a reptile covered with hard scales is made up of _____.



Let Me Answer

- a. Which lizard can run a short distance over water?
- b. Which reptile species has 106 to 115 teeth?

Help List

Sunbeam, Keratin, Leathery, Gharial, Basilisk, Plastron, One-hundredth of a second, Crocodilians, Komodo dragon.

Info-Bits

The largest reptile is the saltwater crocodile, which grows up to 7m in length.

TEACHER'S NOTE

Tell students about the various species of reptiles and the different places they are found.



Defence Reaction of Animals

Self-defence refers to a phenomenon by which every living organism protects itself from its enemy or predator.

Read the following descriptions.

1.



Electric eels are long South American fish. They are known for their ability to stun their prey by generating electricity, delivering a shock at up to 860 volts.



3.

Pygmy Slow Lorises are slow-moving creatures found in China and Cambodia. It produces a toxin from glands on their arm to get a toxin. The toxin becomes a deadly secretion when mixed with their saliva. This makes their bite poisonous.

2.

Opossums are of the size of house cats. Threatened opossums will growl deeply in real danger and pretend to be dead, producing a smell like a dead body. This makes their attackers lose interest and go away.



4.

Newts look cute and harmless, but they are known to protect themselves by secreting poison from their skin. The toxins secreted through the skin as a defence mechanism can kill a person.



Let Me Answer

- Which electric fish is famous in South America?
- What is the unique feature of a rattlesnake?

TEACHER'S NOTE

Help the students understand the different behaviour patterns and unique features of animals.



5.

Rattlesnakes receive their name from the rattle on their tails' tips. The buzzing sound of this rattle works as a warning device. Rattlesnakes are predators that live in a wide array of habitats.



6.



Horned Lizards, also known as horned toads, live in deserts or semi-deserts areas. When they feel in danger, they puffed up their bodies, causing them to appear more horned and larger.



Quiz Time



Fill in the blanks with the help of Help List.

1.

is an endangered animal because of ivory tusks.

2.

is a long-haired, ox-like animal, found in the mountains of Tibet. It is a source of milk and clothing.

3.

is found in Antarctica which can swim but cannot fly.

4.

comes to land to lay eggs.

5.

is the worlds largest animal.

6.

grow antlers that are branched and shed every year.

Help List

Yak,

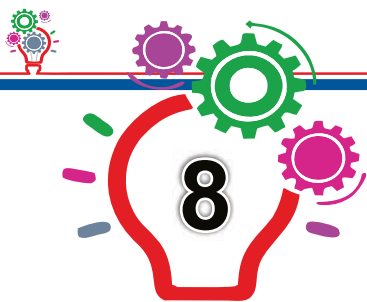
Blue whale

Turtle

Elephant

Penguin

Deer



Endangered Animals

Many animals are facing a very high risk of extinction in the world. Read about the endangered animals and find out the reason for their extinction.

1.



Orangutans, known for their distinctive red fur, are largest mammals that lives in trees. They are found in rainforests on the Southeast Asian island of Sumatra and Borneo. Orangutans are critically endangered animals, with their numbers declining drastically over the years because of habitat loss and hunting.

3.



Red Pandas, have bear-like bodies with thick red fur. They mostly live in trees, and more than half of them are found in the Eastern Himalayas. Less than 10,000 of them exist in the wild. The loss of trees and bamboo in forests has caused a huge decline in the red panda's population.

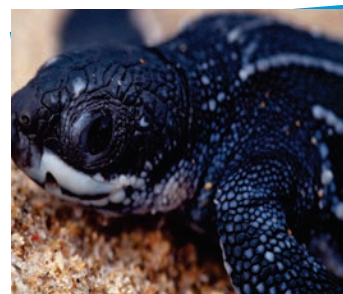
2.

Asian Elephant, can be identified by their smaller rounder ears. Habitat loss due to expanding human settlements, agricultural plantations and large developmental works like dams have led to a decrease in their numbers. Poaching too is a major threat to elephants in Asia as they are killed for their ivory tusks meat leather and other products.



4.

Leatherback Sea Turtles, are named so because they have leather like shells. They are the world's largest sea turtle species. Increased egg collection and capture have led to a steady decline in their number making them critically endangered.



TEACHER'S NOTE

Discuss the meaning of endangered animals. Ask about the preventive measures which can be used to save these extinct species.