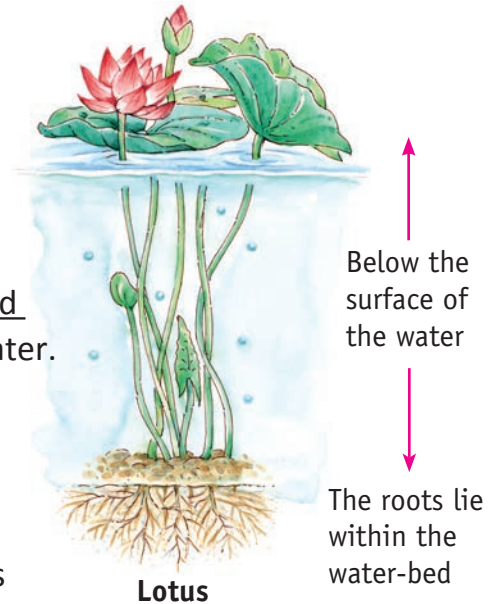


the surface of the water. Leaves and flowers, which grow from the top end of the stems, float upon water. The leaves are broad with stomata on the top surface so that water does not block them. They take in carbon dioxide from air.



Below the surface of the water
The roots lie within the water-bed



Tape grass

3. Underwater plants: Such plants, e.g. hydrilla and tape grass, grow totally underwater. Their leaves are narrow and thin so that they can bend in flowing water. They have no stomata. They exchange gases with water in a special way. Water contains gases in dissolved form. These plants use carbon dioxide that is dissolved in the water. They use this gas for photosynthesis. When underwater plants give off oxygen during photosynthesis, the gas also dissolves in water. Dissolved oxygen is useful for aquatic animals who use it while breathing. The carbon dioxide that these animals breathe out is used up, in turn, by aquatic plants.



TRY IT OUT

Take a few stems of Hydrilla and put them under an inverted funnel. Fill a test tube with water and invert it carefully over the funnel. Let it all stand like that for a few hours. The water in the test tube will gradually decrease. This is because oxygen, which is being given off from the Hydrilla leaves as a result of photosynthesis, is pushing the water out to make space for itself.



Carnivorous plants

Some plants grow in poor soil. Such soil does not have enough nutrition to help the plants make all the food that they need. To make up for this, these plants trap and eat insects. The Venus flytrap and the pitcher plant are two such plants.

The leaves of the Venus flytrap are like a trap. They snap shut when an insect sits on them. The plant then slowly digests the trapped insect.



Venus flytrap

The hollow leaves of the pitcher plant are filled with a nectar. Insects come to feed on this nectar. As they sit on the edge of the pitcher, the lid closes and the insects are trapped inside. Instead of finding food, they become food for the plants instead!

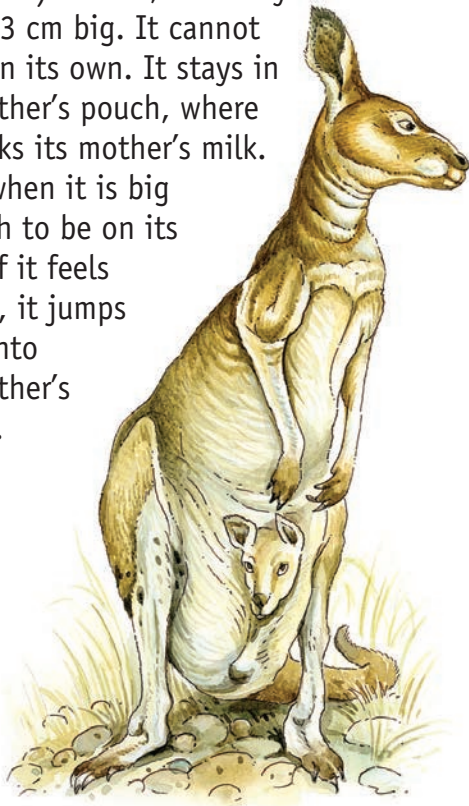


Pitcher plant



DID YOU KNOW?

Joey: When a joey (a baby kangaroo) is born, it is only about 3 cm big. It cannot walk on its own. It stays in its mother's pouch, where it drinks its mother's milk. Even when it is big enough to be on its own, if it feels scared, it jumps back into its mother's pouch.



Hitching a ride: The young ones of water birds swim close to their mother to be safe from predators. Sometimes they may even take a ride on their mother's back.



Different caterpillars

Looking different: Caterpillars have different colours and patterns.

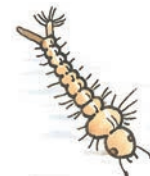
Mosquitoes: These insects lay eggs in stagnant (still) water. A tiny larva develops out of each egg and swims swiftly in the water. The larva changes into a pupa. A mosquito develops out of the pupa. Mosquitoes spread diseases such as malaria. That is why we should not let water become stagnant in and around the house.



Eggs



A tiny larva develops out of each egg and swims swiftly in the water.



The larva changes into a pupa.



A mosquito develops out of the pupa.

Life history of the mosquito

Different types of teeth

There are four types of permanent teeth: **incisors**, **canines**, **pre-molars** and **molars**. Different teeth do different things.

1. **Incisors** help to bite into foods such as an apple or a biscuit.



2. **Canines** are pointed teeth. They help to tear food, like separating meat from a bone. They also help to take a harder bite than is possible with incisors.

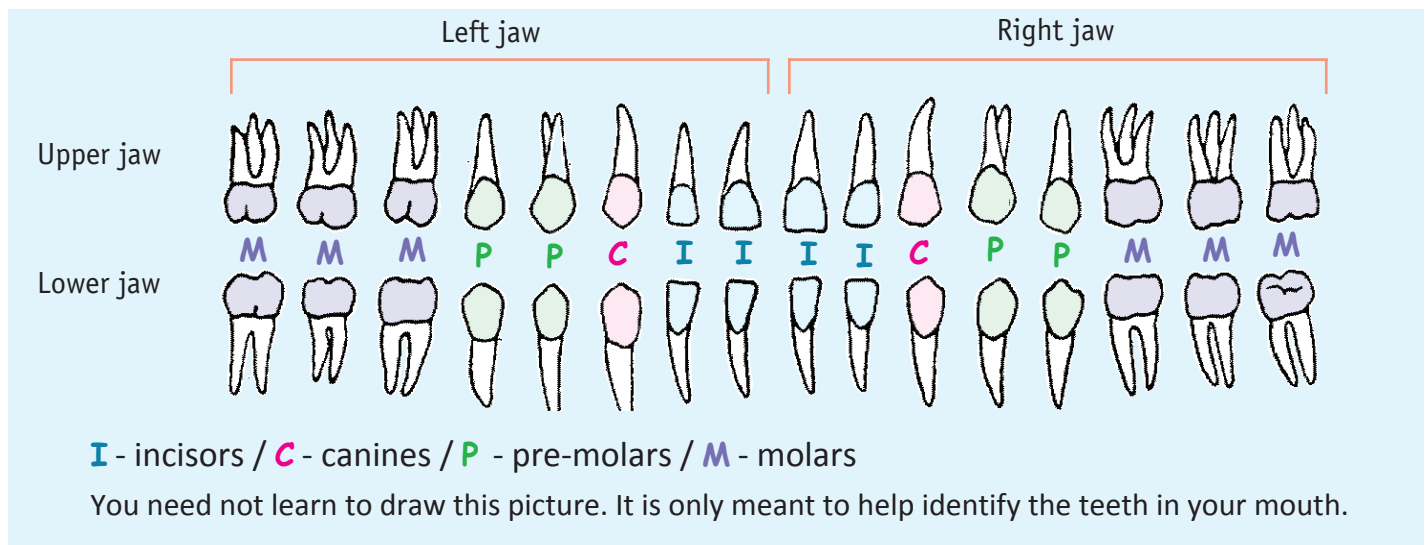


3. and 4. **Pre-molars** and **molars** are broad teeth. They help to munch, crush and grind food.



This table shows you how many teeth grow in the mouth.

	incisors used for cutting	canines used for tearing	pre-molars used for crushing and grinding	molars	
The upper jaw has	4	2	4	6	
The lower jaw has	4	2	4	6	
Total	8	4	8	12	= 32



Why brushing keeps teeth healthy

We need to brush our teeth regularly: once in the morning, and once at night before going to bed. We must also rinse our mouth after every meal.

If we do not take care of our teeth, they may begin to yellow. This is due to a layer of **plaque** that forms on dirty teeth. Plaque can lead to gum disease and cavities. These things cause teeth to rot and fall off.

Brushing your teeth also keeps your mouth smelling fresh !





A. Weather Language

Do you know what these expressions mean? Draw pictures (silly ones are allowed) for as many as you can. Can you use them in sentences also?

- (1) Raining cats and dogs, (2) A foggy idea, (3) As white as snow, (4) A cold shoulder, (5) A frosty stare, and (6) A sunny smile.

B. Planetary Maths

These creatures want to know how old they will be if they come to Earth. Can you tell them? Use these facts to help you:

1 year on Jupiter	=	12 years on Earth
1 year on Uranus	=	84 years on Earth
1 year on Neptune	=	165 years on Earth

My brother and I are from Jupiter. I am 6 years old.



I am 4 years old.

I am from Uranus. I am 9 years old.



I am from Neptune. I am still a baby — just 1 year old!



You will be _____ and _____ years old on Earth.

You will be _____ years old on Earth.

You will be _____ years old on Earth.

C. Make Your Own Mnemonic

A mnemonic (the 'm' is silent) is something that helps you to remember something. The word VIBGYOR is a mnemonic for the colours of the rainbow. A mnemonic for the names and order of the planets is given at the bottom of page --. Can you write one of your own here? (You could even start from Neptune).

Teacher's Note: Do explain the meaning and use of the expressions in A. to the children.