

LET'S GET ACTIVE



Learning about

Flowers



Activity Book

Swayam Ganguly



Terrapin

From the desk of Dr R K Pachauri

Over half the population of the world today lives in urban areas, and even though in India we still have almost two thirds of our population living in villages, in the next few decades we would also have a majority of our citizens living in towns and cities. One of the realities of urban life is its remoteness with the pristine existence of all things natural. Urban children in North America when asked where milk comes from generally respond that it comes from plastic bottles or cardboard cartons. They have no knowledge that cows provide us with milk that we drink.

A good psychologist friend of mine who is a professor at Yale University, Paul Bloom, has been researching for years now on what provides human beings joy and happiness. His research reveals that the greatest pleasure human beings experience is derived from being in the company of nature and indulging in the delights that we sense when we are in the midst of beautiful scenery or in the company of animals, birds, plants and flowers. The richness of the environment around us is a source of joy that many of us living in urban areas miss greatly, day in and day out.

Children in particular need to see and feel the benefit of life that exists in the kingdom of plants, birds, animals and insects. It is only when they touch, feel and smell the environment in open areas that they realize the richness of our natural heritage.

This series of books would help children learn about animals, birds, plants, flowers, people as well as places by means of simple activities and exercises. They will not just enjoy the activities described in the pages of these books today but would also retain some of the most valuable lessons that they learn as inspiration towards becoming environment friendly citizens tomorrow.



R K Pachauri
Director-General, TERI

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Learning about Flowers

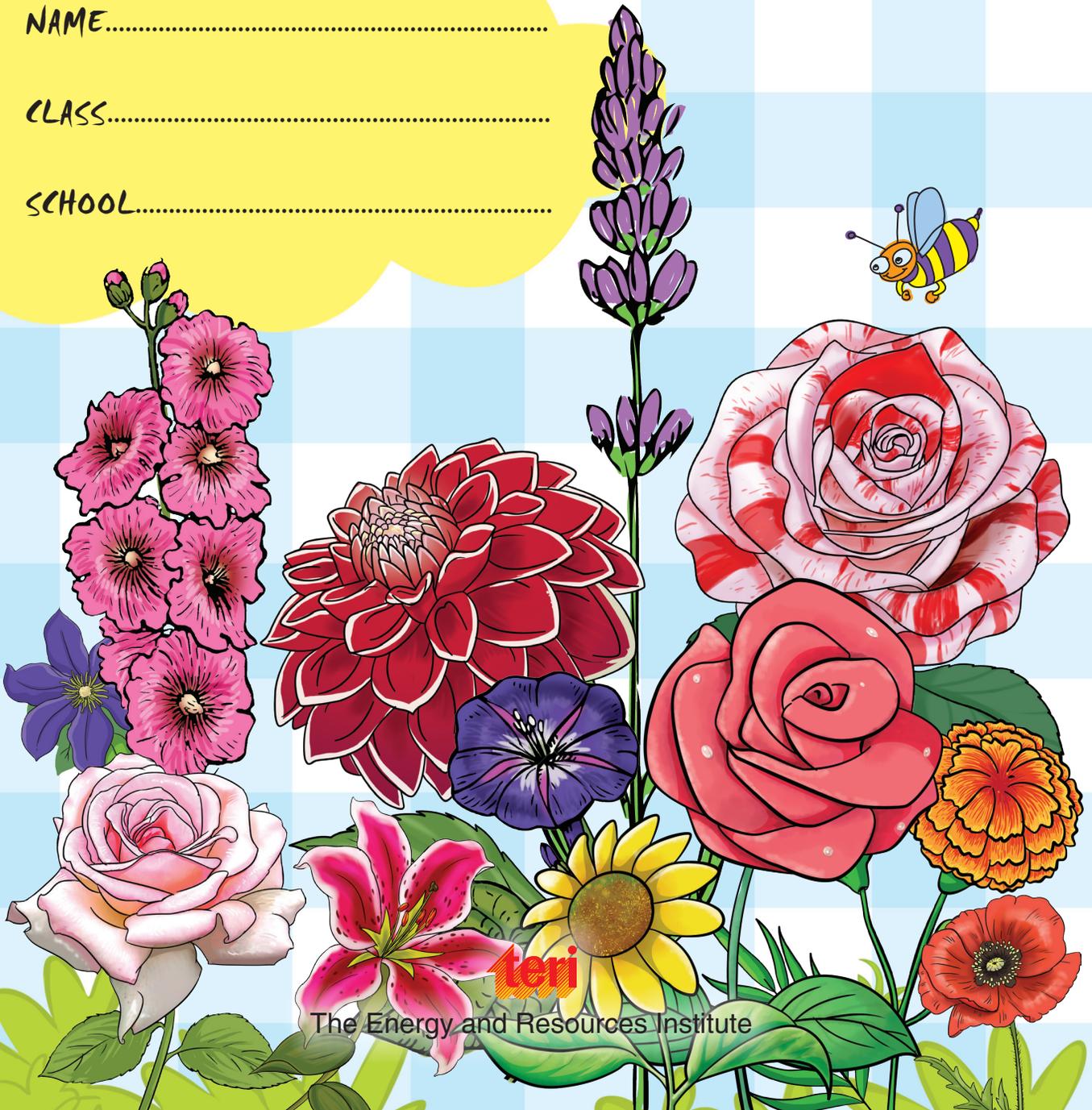
Swayam Ganguly



NAME.....

CLASS.....

SCHOOL.....



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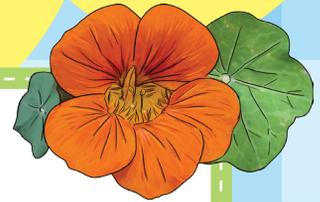
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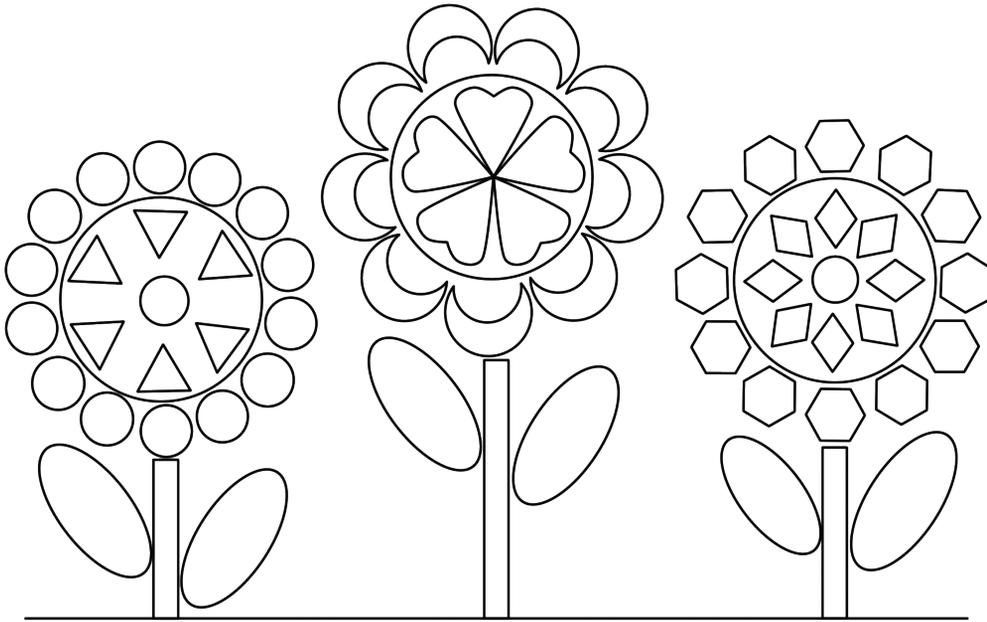


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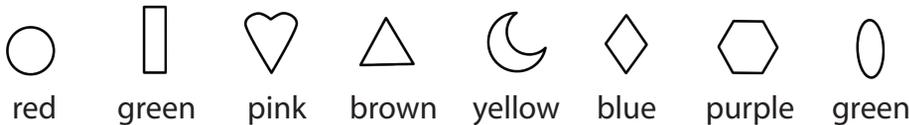
What is a Flower?

A flower is the reproductive part of a plant, which is also called the bloom or the blossom. The colourful petals of a flower surround its seed-bearing part. Even outside the petals is the green, leaf-like sepal that encases the developing bud and supports the petals when in bloom. The flower is attached to a stalk.



Colour brightly!

We have lost our glory! Identify the shapes and their matching shades, and then fill colours to make us lively again.



Did you know?

Although we don't have colourful petals, some of us are flowers too. Can you circle us out from the pictures given below? Do you know why we are considered flowers? Give one reason in the blank space below.



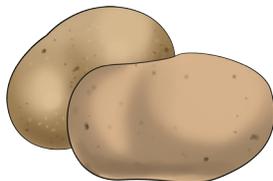
Cabbage



Cauliflower



Gooseberries



Potato



Broccoli

Origin of Flower-bearing Trees

Flowers did not always exist on Earth. Flowering plants, also known as angiosperms, made their first appearance 140 million years ago. Before that only ferns and cone bearing trees could be found on Earth.

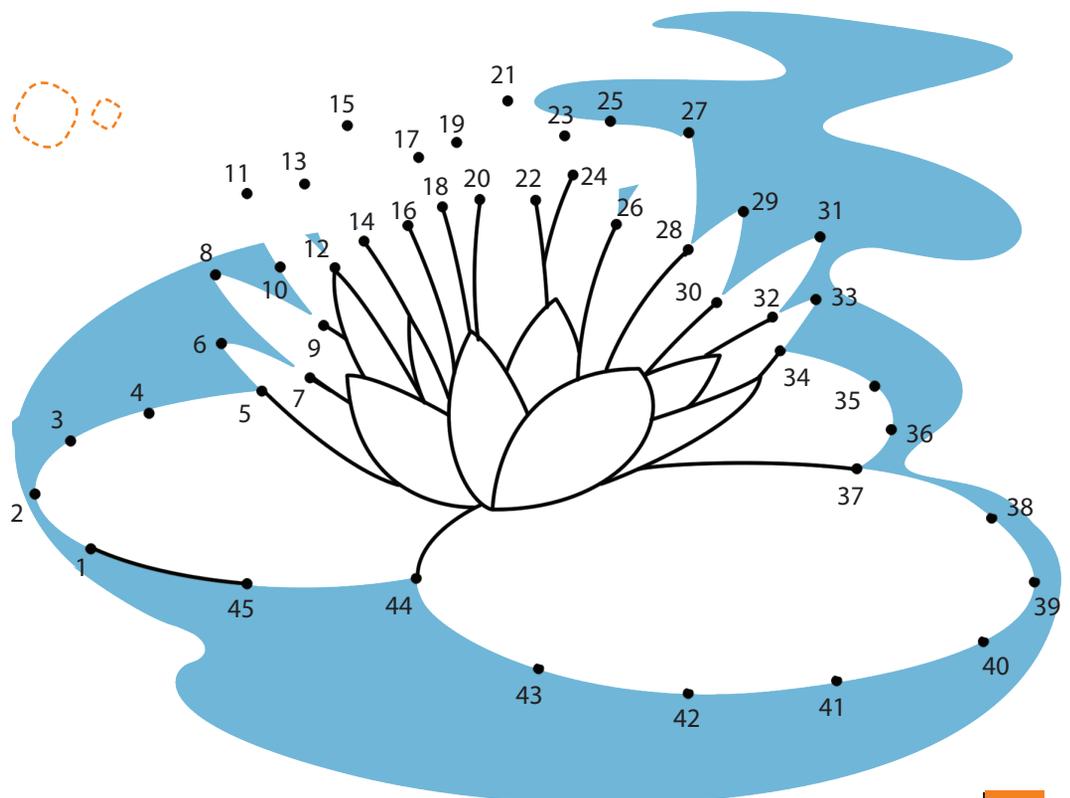


Guess my name

I have large, glossy leaves and huge, fragrant, white blossoms. In the evolutionary history of Earth, I am one of the most primitive terrestrial flowering plants. Fossil records show that I once existed in Europe, North America, and Asia over 100 million years ago. In Hindi, I am known as *Him Champa*. In northeast India, I am commonly grown and used as an offering in *puja*. Who am I?

Trace me out

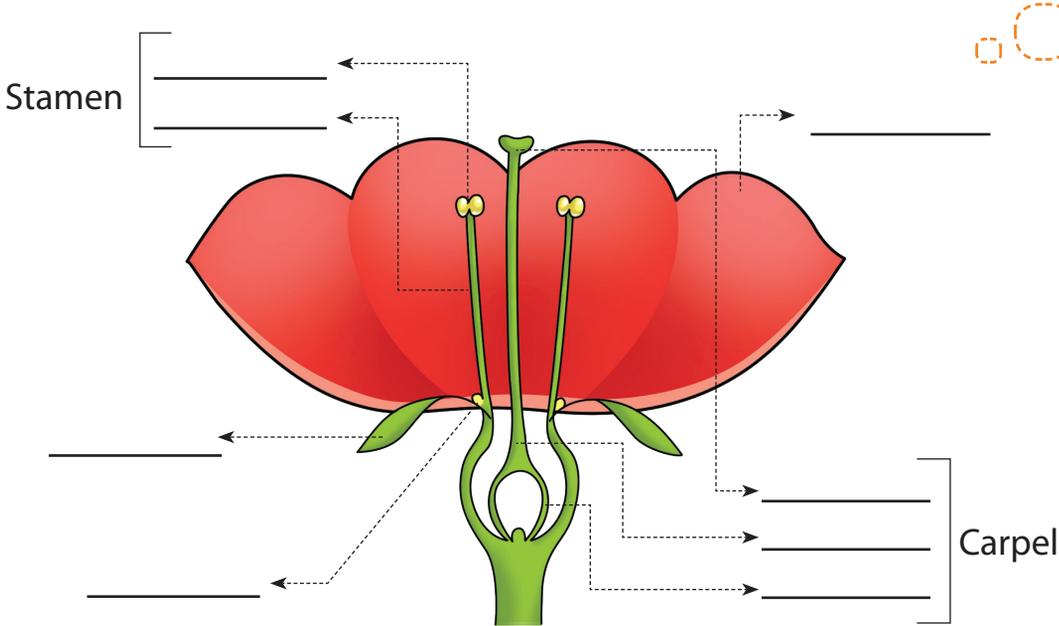
I am a water lily, one of the oldest aquatic flowering plants on Earth. In the past, I had a gigantic size. My fossils, or preserved remains or impressions on rock, show lily pads up to four feet wide. As I evolved over several thousands of years, I changed into the smaller size that I have today. Join the dots and trace me out to see how I look. Then colour me bright.



Parts of a Flower

The flower consists of colourful petals that are enclosed by small, green, leaf-like sepal. The carpel, or the female parts, lie inside the flower and consists of the stigma, style, and an ovary containing the ovules or eggs. Septal nectary is set at the wall of the ovary. The stamens, or the male parts of the flower comprise of the anther and the filament.

Parts of a Flower

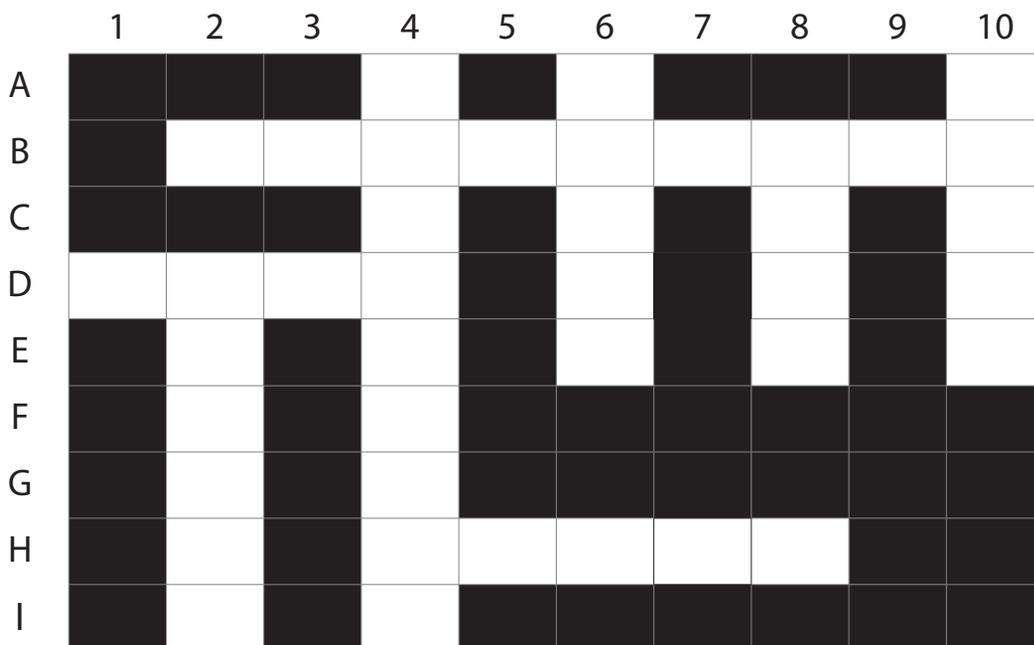


Label the parts

Plants produce us to make seeds. Our life cycle involves pollination and fertilization of the ovules in the ovary that yields seeds. These seeds are used to grow more flowers.

Crossword

Hi! We are some beautiful flowers. Can you name us and solve this word puzzle?



Across

Chamomile B2
Rose D1
Lilac H4

Down

Orchid 2D
Calendula 4A
Poppy 6A
Iris 8B
Peony 10A

The Role Flowers Play

Flowers play a key role in the reproductive cycle of plants. Each flower produces pollen that is used for fertilization. The attractive colours, patterns, scents, and nectar of flowers draw pollinators, such as hummingbirds, bees, wasps, ants, flies, and beetles who help to transfer the pollen from one flower to the other.



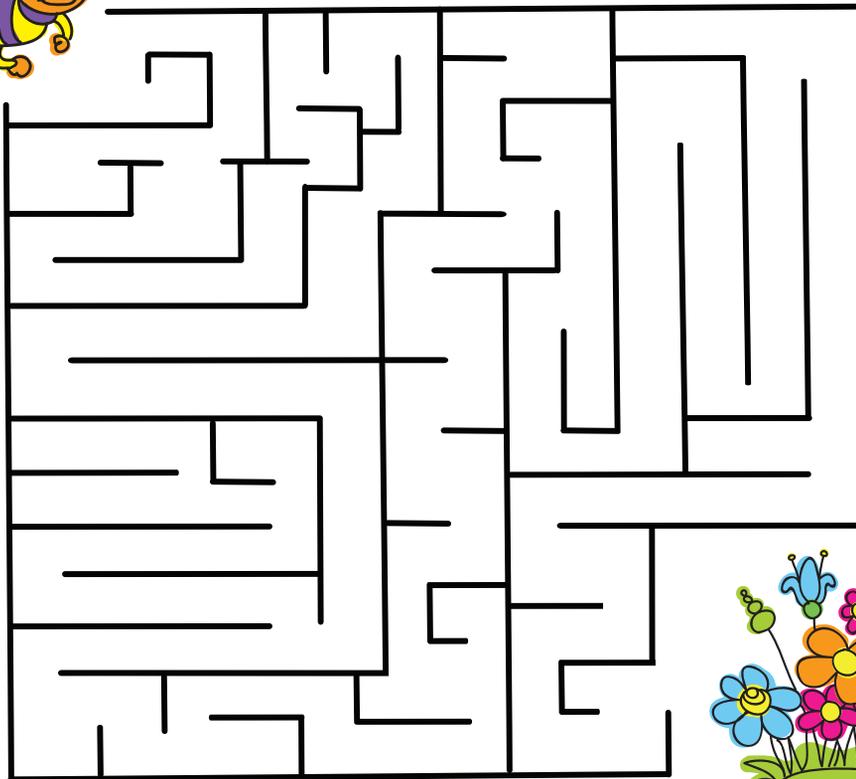
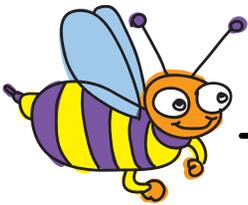
Pretty petals

My name is Calendula. Count how many petals do I have. Collectively, the petals of a flower have a name. Do you know what it is?



How many petals do I have? _____

Flower petals are collectively called: _____



Help!

Bizzy, the bumblebee, wants to reach us to transfer the pollen. Help him find his way through the maze.

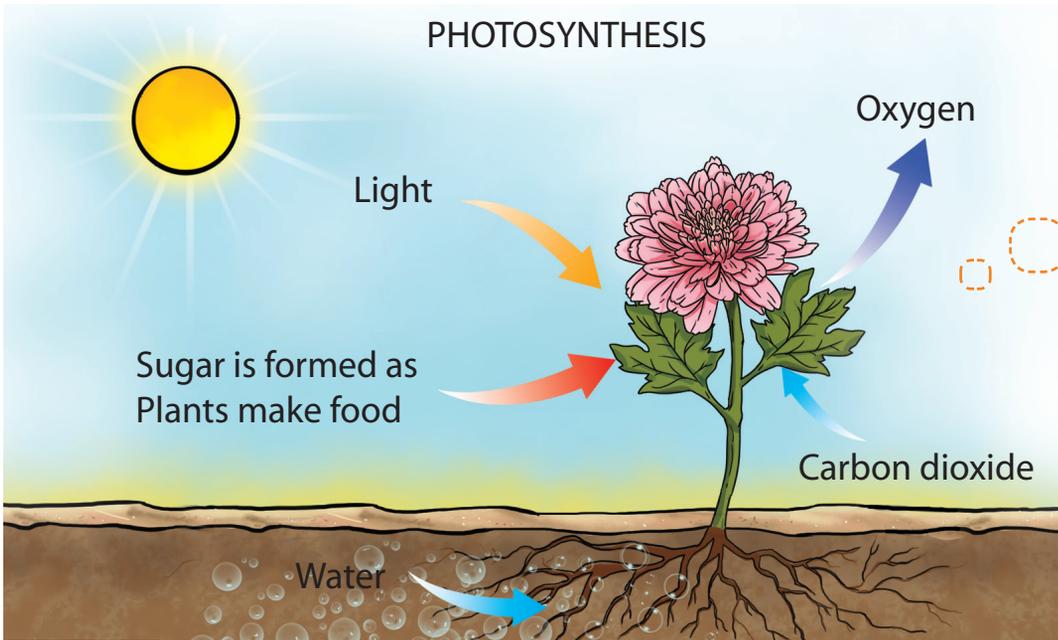
How Flowers Eat and Grow?

Flowers get their food from sunlight, water, and minerals in the soil. Food is cooked by the process of "photosynthesis" in green leaves of the plants. Chloroplasts make the leaves green, and they work to convert carbon dioxide, water, and light, into sugar and oxygen. The sugar is used by plants to grow and produce flowers releasing oxygen at the same time.

Give a reason

We make you smile when in bloom. But sometimes we may look gloomy too. Can you give a reason why this happens by ticking the right answer given below?

- We don't receive enough sunlight
- We don't get enough water
- We lack the proper nutrients
- All of the above



That's how I make food

I am self-sufficient. I just sit around waiting for sunshine and then make food myself. Study the picture and then use the labels to fill in the blanks.

- Flowers get light, heat, and energy from the _____
- Flowering plants take in carbon dioxide through their _____
- Flowering plants take in water and minerals through the _____
- Photosynthesis:+.....+.....=.....+.....

Let's Get Active : Learning about Flowers (An illustrated activity book that teaches young learners all about Flowers)



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