

Miss. Selwan Khaled



Unit 1 : Interactions of Organisms



Concept 1.1 Plant Needs

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Concept 1.1 Plant Needs

- - Have you ever planted a seed and watched it grow into a plant?
- - Think about what the plant needs to grow and survive.
- - How do the structure of a plant use water , air , and light to perform life processes?



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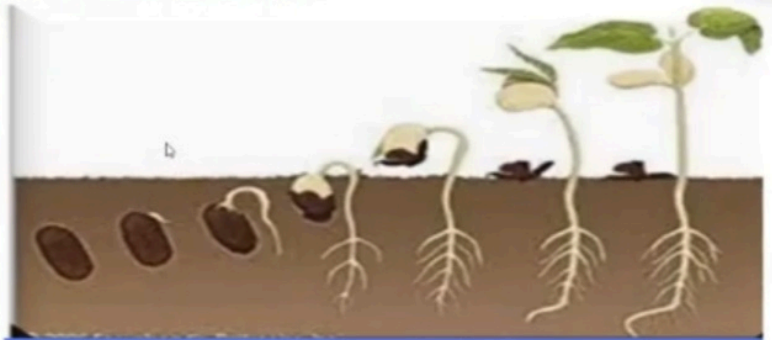
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Concept 1.1 Plant Needs



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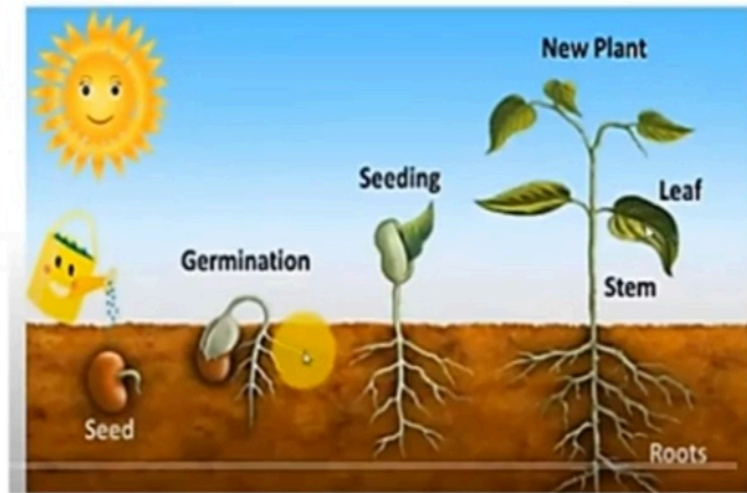
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Concept 1.1 Plant Needs

Activity :Can you Explain ?

When you observe opposite figure that shows the steps of growing up of a bean seed to form a new plant, you can find out , what the plant need to grow.



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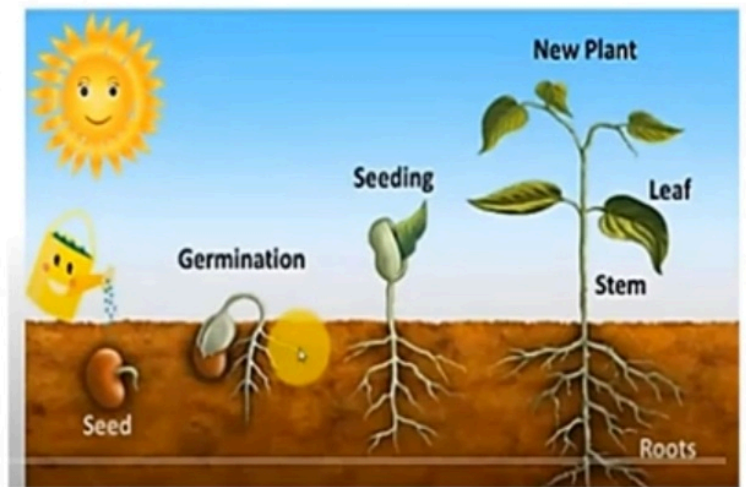


Concept 1.1 Plant Needs

Activity :Can you Explain ?

When you observe opposite figure that shows the steps of growing up of a bean seed to form a new plant, you can find out , what the plant need to grow.

- Plant need Air , Water , Sunlight and space to grow.



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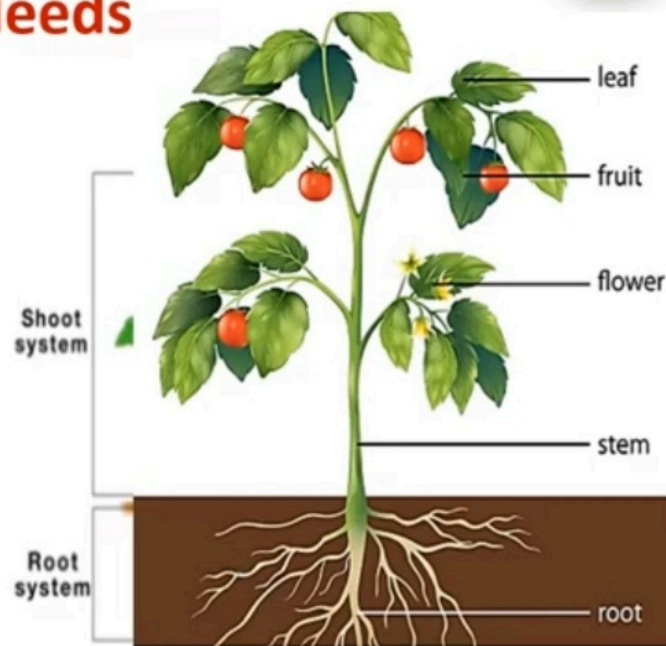


Concept 1.1 Plant Needs

How do the structure of a plant use water , air , and sunlight to perform life processes?

-We previously learned that, when a seed germinates, it grows into a whole plant, which consists of many parts.

- Plants have roots , Stems , Leaves and sometimes flowers or fruits.



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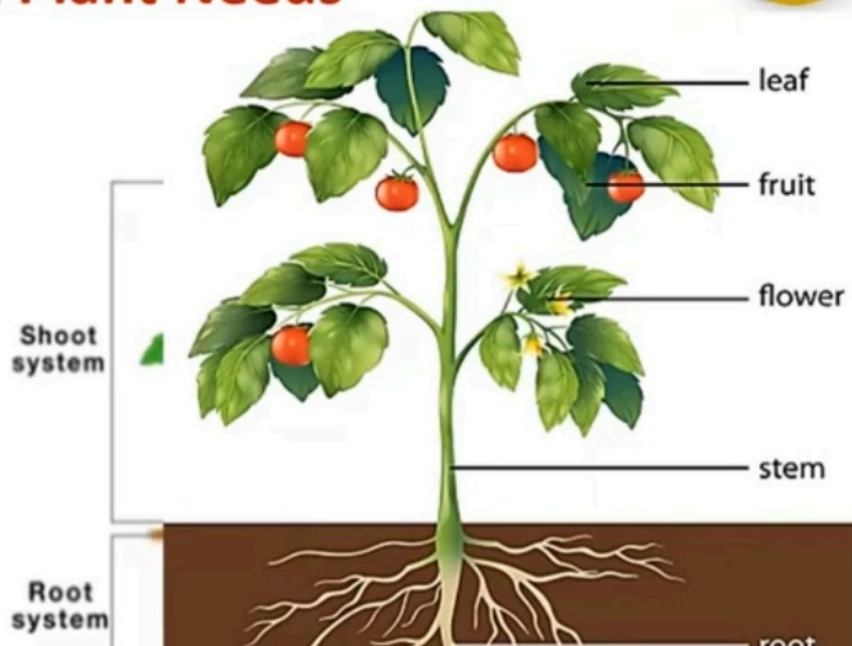


Concept 1.1 Plant Needs

A plant is a living organism, like a human

Plants needs

water , sunlight , air and soil to grow.



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Concept 1.1 Plant Needs

Activity 2.Tree Needs

Look at the opposite picture , then put (✓) or (X) :

Both human and plant need food and water
every day to survive .



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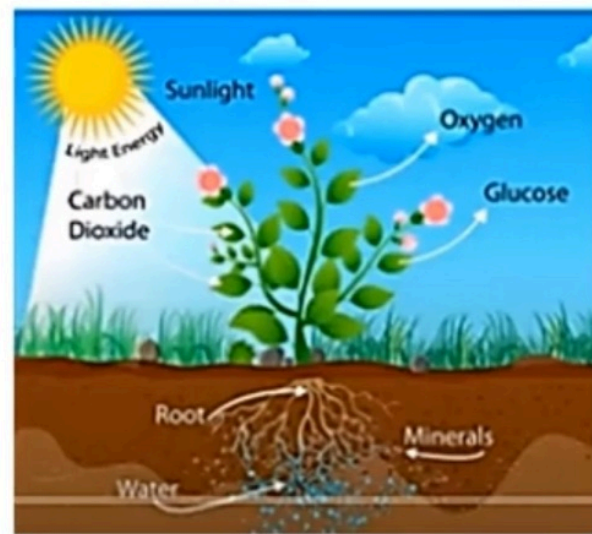
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Concept 1.1 Plant Needs

What does a plant need to survive?

When a tree is planted , it begins to grow from a seedling into a mature tree depending on some resources as **Water , air (carbon dioxide gas) and sunlight** to make its own food to grow and survive.



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Concept 1.1 Plant Needs

Check your understanding: Underline the items that the plant needs to grow and survive :



Sunlight



Space



Vegetables



Water



Oxygen



Meat

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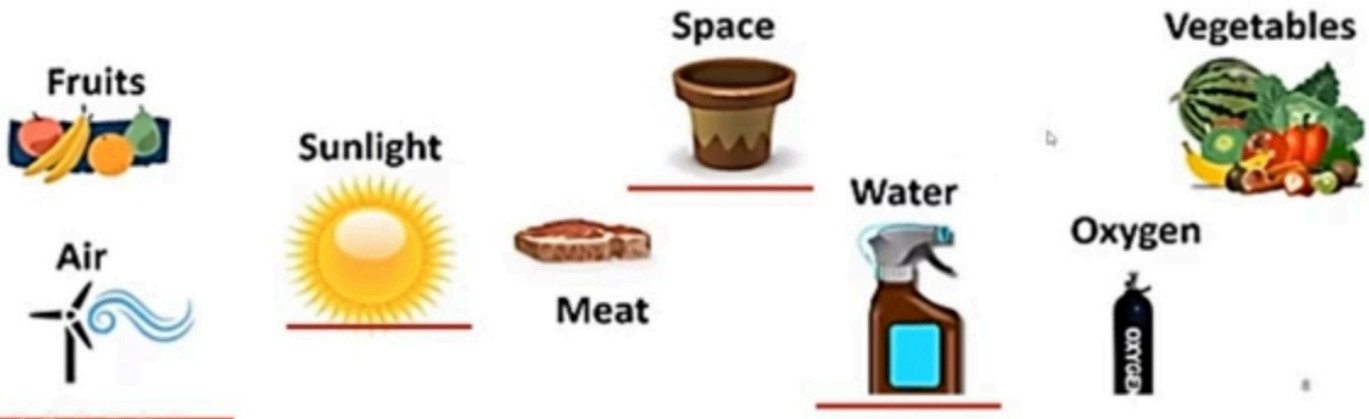


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Concept 1.1 Plant Needs

Check your understanding: Underline the items that the plant needs to grow and survive :



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Concept 1.1 Plant Needs

Activity :- What do already know about plant needs?

Compare between Plants and animals ' needs to survive

<u>Plants</u>	<u>Animals</u>
<u>To survive Plant need :</u> 1- Nutrients and water from soil 2- Air (Carbon dioxide gas) 3 - Sunlight	<u>To survive animals, need :</u> 1- Food to get energy to live & grow 2- Water 3- Oxygen gas 4- Shelter
<u>- How they get</u> They depend on themselves to get food. By photosynthesis process - It needs carbon dioxide gas.	<u>- How they get</u> They get their food from plant , animal. - They don't need carbon dioxide gas. Most animals move to search for food

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Concept 1.1 Plant Needs

Some wrong & right concepts about plants needs

Wrong (x)	Right (✓)
Plants , like human and animals , need oxygen gas only	Plants need carbon dioxide gas and they produce oxygen gas through the photosynthesis process
All plants need soil to growth the seeds.	Many plants need soil for growth the seeds, some don't

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Plants and Human

Plant	Humans
1-<u>Similarities</u>	
<i>Both plants and human need water and air to grow and survive</i>	
2- <u>Differences</u>	
<i>1-Plants need nutrients and they get them from the soil</i>	<i>Human need nutrients and energy , and they get food from plant and animals to survive and grow</i>
<i>2- Plants make their own food through the photosynthesis process in their leaves</i>	

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Concept 1.1 Plant Needs

Plant Needs To grow as healthy plant ,

<u>Basic Plant Needs</u>	<u>Not Basic Plant Needs</u>
1-Sunlight 2-Water 3-Carbon dioxide gas	1-Soil 2- Oxygen gas 3- Sugar 4- Forest



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Concept 1.1 Plant Needs

G.R. soil is not as a basic plant need?

Because some plants **don't need** soil to grow

Plants that grow in
water only



Plants that grow in air



Plants that grow on other
plants



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Concept 1.1 Plant Needs

Plant leaves

- Plants make their own food in their leaves

through the photosynthesis process

- Plant food is a kind of sugar this sugar provides it with the energy needed for growth



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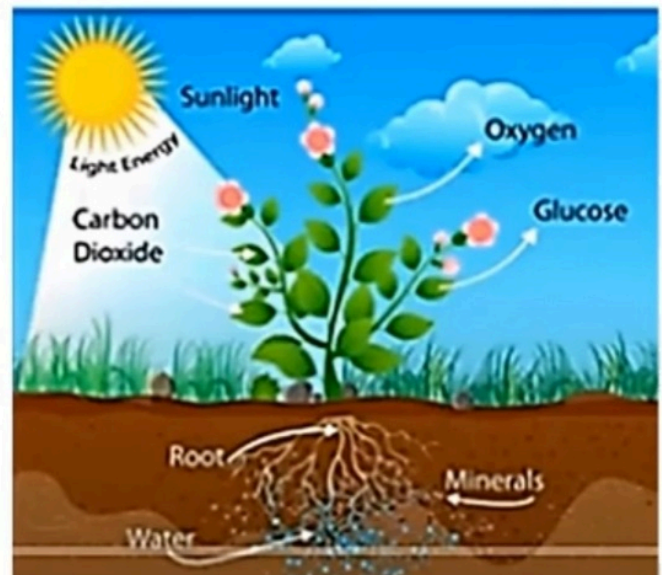
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Concept 1.1 Plant Needs

Plant root , stem

Plant's root absorbs water and nutrients from the soil, and then they pass from the root to the leaves through the stem



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Concept 1.1 Plant Needs

How do the **root** , **stem** , and **leaves** help the plant to get food ?

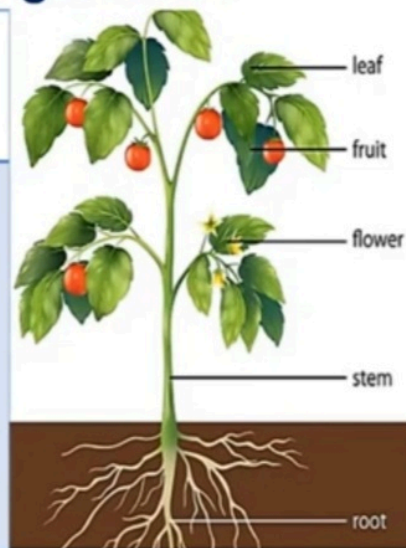
Plant leaves

Plants make their own food in their leaves through the **photosynthesis process**. Plant food is a **kind of sugar** this sugar provides it with **the energy** needed for growth.

Plant root , stem

Plant Root and Stem

Plant root absorbs water and nutrients from the soil, and then they pass from the **root** to the **leaves** through the **stem** .



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Concept 1.1 Plant Needs

Check your understanding : Classify the following items into “ Basic Plant needs for photosynthesis “ Or “ Not Basic Plant need for photosynthesis process”

(Water – Sunlight – oxygen- Sugar – a forest – carbon dioxide gas)

Basic Plant needs for photosynthesis	Not Basic Plant needs for photosynthesis process
Water Sunlight carbon dioxide gas	Oxygen Sugar a forest

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Concept 1.1 Plant Needs

Choose from column (B) what suits it in column (A)

(A)	(B)
1-Sunlight	A- is absorbed by the roots of the plant. (3)
2- Soil	B- is necessary for plant's growth. (1)
3-Water	C- is not a basic need for plant growth. (2)
4-Oxygen	D- a gas which is produced during photosynthesis process. (4)
	E- a gas which is the plant uses during photosynthesis process.

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Concept 1.1 Plant Needs

Cross out the odd words:-

1- Carbon dioxide gas – Water – Oxygen gas – Sunlight.

2- Roots – Stem – Leaves – Sunlight.

3- Green plant – Shelter – Water – Sunlight.

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Concept 1.1 Plant Needs

Write the scientific term:

- 1- The living organisms that can make their own food. (green plants)
- 2- The vital process that takes place in green plant to make them survive.
(Photosynthesis process)
- 3- The part of the plant that absorbs water and nutrients from the soil.
(The root)
- 4- The part of the plant that is responsible for making its food.
(green leaves)

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Put (✓) or (X):

- 1- All plants have roots , Stems and leaves. (✓)
- 2- Plants need water and air only to grow. (X)
- 3- Stem of the plant absorbs water from the soil. (X)
- 4- Plants use the energy of the sunlight to make their own food. (✓)
- 5- Photosynthesis process takes place in the plant root. (X)

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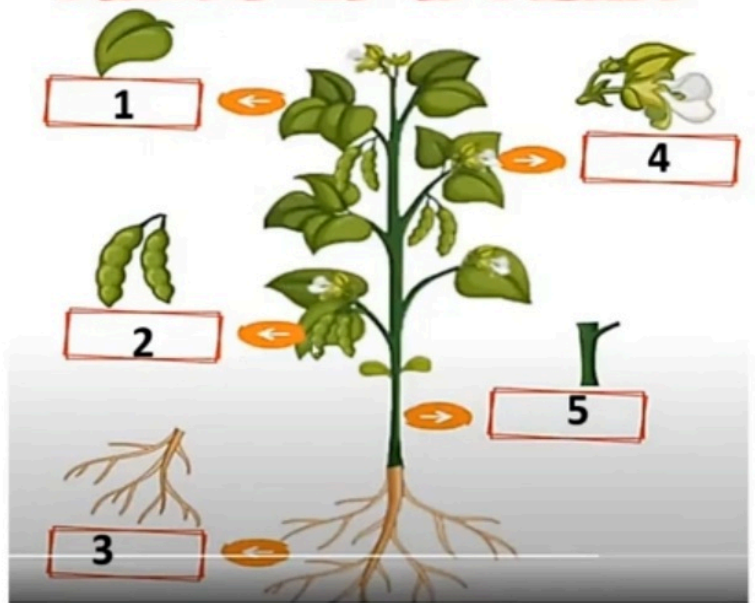


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The opposite figure represents a green plant, answer the following questions

- 1-.....**Leaf**.....
- 2-.....**Fruits**.....
- 3-.....**Root**.....
- 4-.....**Flower**.....
- 5-.....**Stem**.....

PARTS OF A PLANT



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