

Unit 5

PLANTS



This is so delicious.

These long beans can be eaten raw.

The air here is so fresh.

I want to eat too.

Humans and animals need plants to stay alive. Why?



The Importance of Plants

Plants are important to humans and animals because they provide:

habitats

air

medicine

food



HOTS

Give other benefits of plants to humans.



Basic Needs for Seeds to Germinate

Hmm...when will this seed germinate?



I am a seed. I will germinate when all my basic needs are fulfilled.



I need water and air to germinate.



I also need a suitable temperature to germinate. I am more comfortable here.



A few days later...

I have started to germinate.



Water, air, and a suitable temperature are required for the germination of seeds.

Teacher's Notes

5.1.2



- A suitable temperature for seed germination differs between plants.

Activity Book

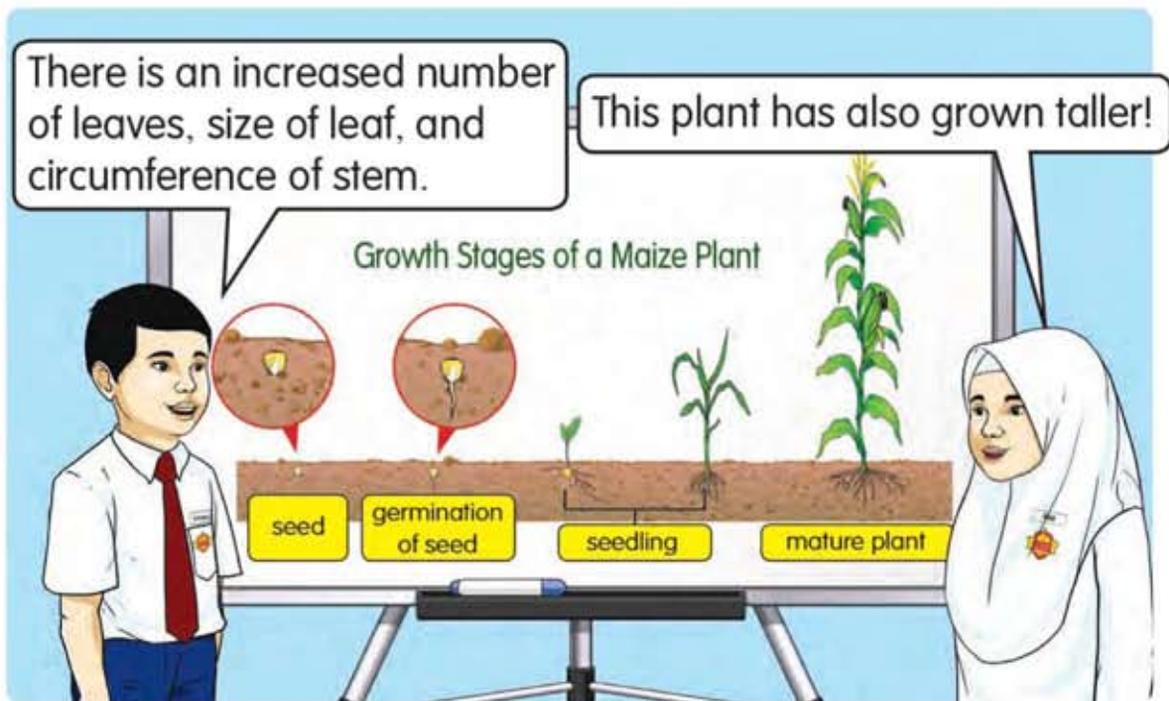
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A Plant's Growth

Plants will undergo changes of growth. What are the changes that you notice in the maize plant below?



Observation of growth changes in the maize plant is recorded below until the 21st day.

Parts of plant	Day			
	3 rd	9 th	15 th	21 st
Number of leaves	2	5	10	14
Size of leaf (cm)	1.0	1.5	1.8	2.5
Circumference of stem (cm)	0.3	0.5	0.8	1.0

When plants grow, the **number of leaves**, the **size of leaf**, the **height of plant**, and the **circumference of the stem** will increase.

Activity Book

Page:

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I Investigate

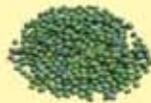


Observe the Growth of the Green Bean Plant

Apparatus and Materials



soil



green bean seeds



plastic cup



trowel



magnifying glass



adhesive tape

Group Activity

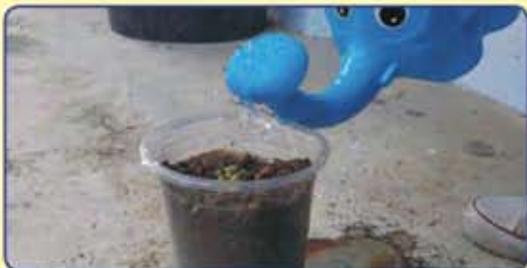
Steps



1. Fill a plastic cup with soil.



2. Put the seeds into the soil.



3. Water the seeds every day.

4. Allow the seeds to grow.
5. Remove a seedling every three days. Paste the seedling using adhesive tape in your Science exercise book.

Day		
3rd	6th	9th

Question

During growth, plants will increase in the of leaves, of leaf, of plant, and of stem.

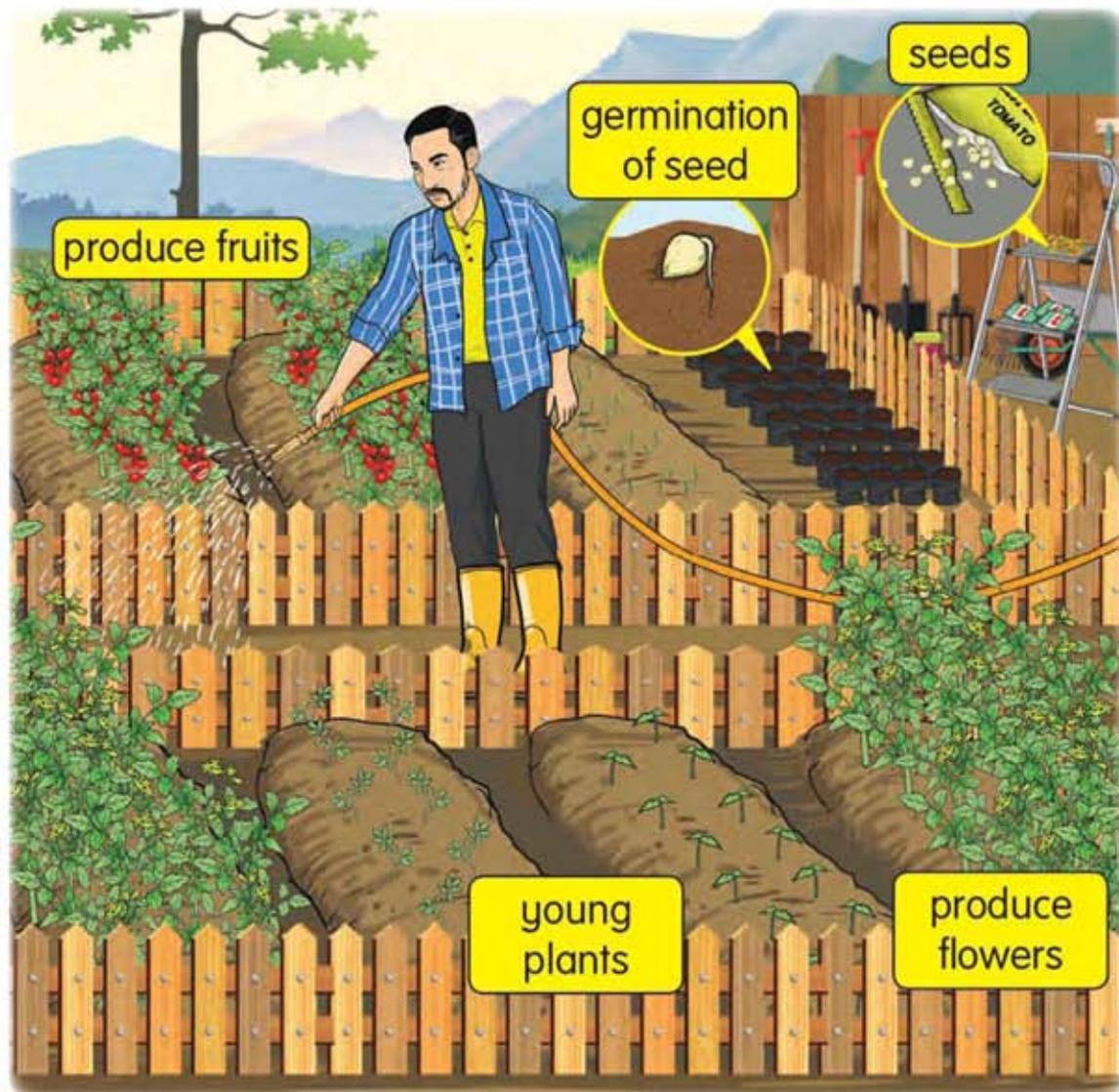




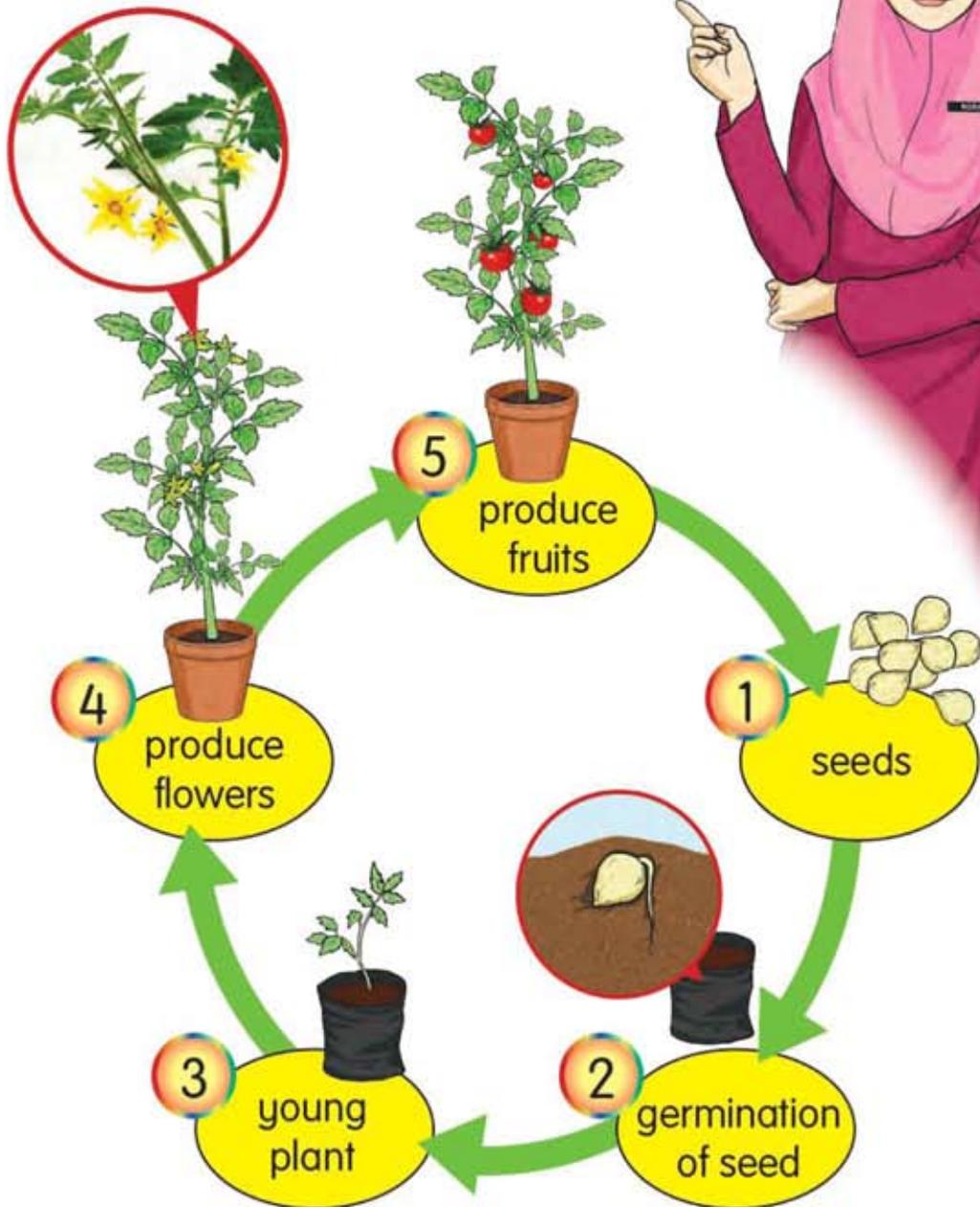
Stages of Plant's Growth

A plant has several stages of growth.

Let's go to Pak Ali's farm to observe the growth stages of tomato plants.



Let's arrange the growth stages of a tomato plant.



The growth stages of a tomato plant are seed, germination of seed, young plant, produce flowers, and produce fruits.





Basic Needs for a Plant's Growth

Plants require the basic needs for growth. Plants will wither and die if any basic need is lacking.

Why has this plant wilted?



Maybe it lacks some basic needs. Let's investigate.



I Investigate

1

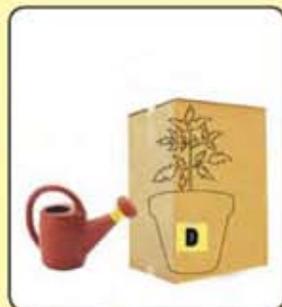
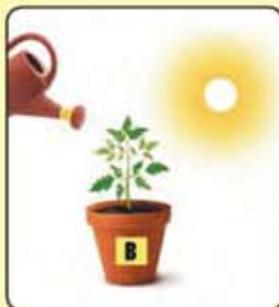
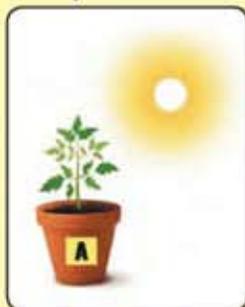
Investigate the Basic Needs of Plants

Apparatus and Materials

- water
- clear plastic bag
- box
- same type and size of plants (labelled A, B, C and D)

Group Activity

Steps



1. Place all plants labelled A, B, C and D outside the classroom.
2. Water all plants except plant A.
3. Tie a clear plastic bag over plant C.
4. Put plant D inside a box.

5. Observe the condition of the plants after two weeks. Record your observation in the table as shown below.

Plant	Sunlight	Water	Air	Observation after two weeks
A	✓	x	✓	
B	✓	✓	✓	
C	✓	✓	x	
D	x	✓	✓	

Question

The growth of plant  is the best because it has sufficient basic needs such as , , and .



I Investigate

2

Investigate Nutrient Requirements of Plants

Apparatus and Materials



fertilizer



two plants of the same type and size

Group Activity

Steps



1. Place plants A and B outside the classroom. Water the plants every day.



2. Pour liquid fertilizer into pot A.

3. Observe the condition of the plants after two weeks. Record your observation in the table as shown below.

Plant	Nutrient	Observation
A	✓	
B	x	

What conclusion can you make from the investigation?



Question

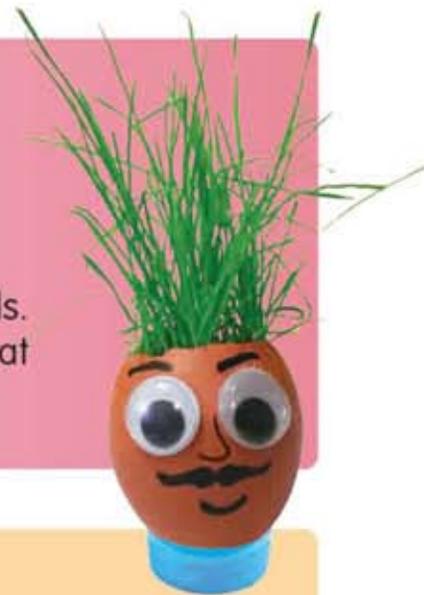
The growth of plant  is better because it gets .

Water, air, and sunlight are basic needs of plants. Nutrients help plants to grow and stay healthy.

Science Recreation

Grass Egg Head

1. Break the top part of an egg. Remove the content.
2. Wash and dry the shell.
3. Draw a nose, eyes, and lips on the shell.
4. Insert cotton balls into the shell. Add some grass seeds.
5. Water the seeds daily. Place the grass egg head at one corner of the house with sunlight.



I Remember

1. Plants are important because they provide:
 - habitat
 - air to breathe
 - food
 - medicine

Teacher's Notes

- Grass seeds are available at convenience stores or garden nurseries.



2. Basic needs for seeds to germinate:

water

air

suitable temperature

3. When plants grow, they increase in:

- number and size of leaves
- height of the plant
- circumference of the stem

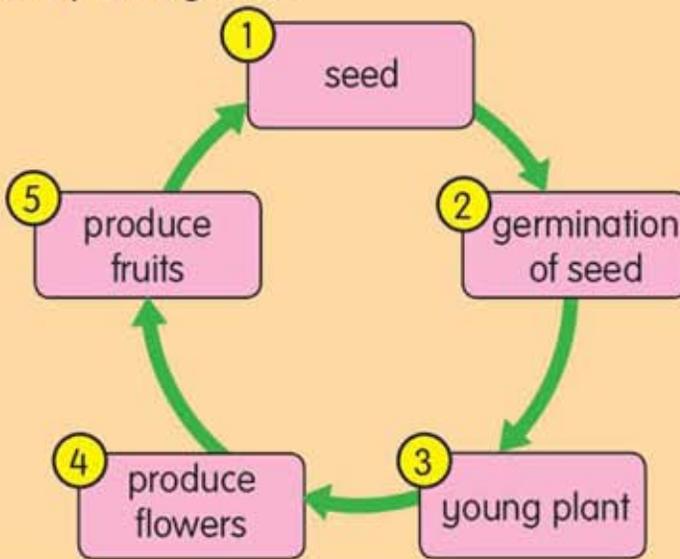
4. Basic needs for a plant's growth:

water

air

sunlight

5. Stages of a plant's growth:



I Answer

Answer all the questions below in your Science exercise book.

1. What is the importance of plants to humans and animals?
2. State the basic needs for the germination of seed.
3. Observe the growth stages of a sunflower plant. Arrange the growth stages in the correct sequence.

(A)



(B)



(C)



(D)



4. What are the changes that can be observed in a plant's growth?
5. State the basic needs for a plant's growth.
6. Arrange the growth stages of a coconut plant in the correct sequence.

A



young plant

B



germination of seed

C



fruit

D



produce fruits

E



produce flowers

