



Science

Plants

WHAT DO PLANTS NEED TO STAY HEALTHY?



Meet Quizby!

Can you spot me in the
Lesson Presentation?

The questions that appear will help you to think about the key learning throughout the lesson.



Aim

- To explain what plants need to grow and stay healthy.

Success Criteria

- I can observe and explain what has happened to the plants in our test.
- I can suggest what has caused the plants to look like they do.
- I can suggest what things a plant needs to stay healthy based on my observations.



Remember It

Let's look at our class plant and see how it is growing. We can measure its growth and draw or photograph it for our **Class Plant Diary** from Lesson 1!



Class Plant Diary

We have planted a _____ on _____.

We are going to observe and measure how the plant grows and either draw or photograph it each week.

Starting week: [] The plant is _____ tall	Week 1: [] The plant is _____ tall
Week 2: [] The plant is _____ tall	Week 3: [] The plant is _____ tall
Week 4: [] The plant is _____ tall	Week 5: [] The plant is _____ tall
Week 6: [] The plant is _____ tall	Week 7: [] The plant is _____ tall

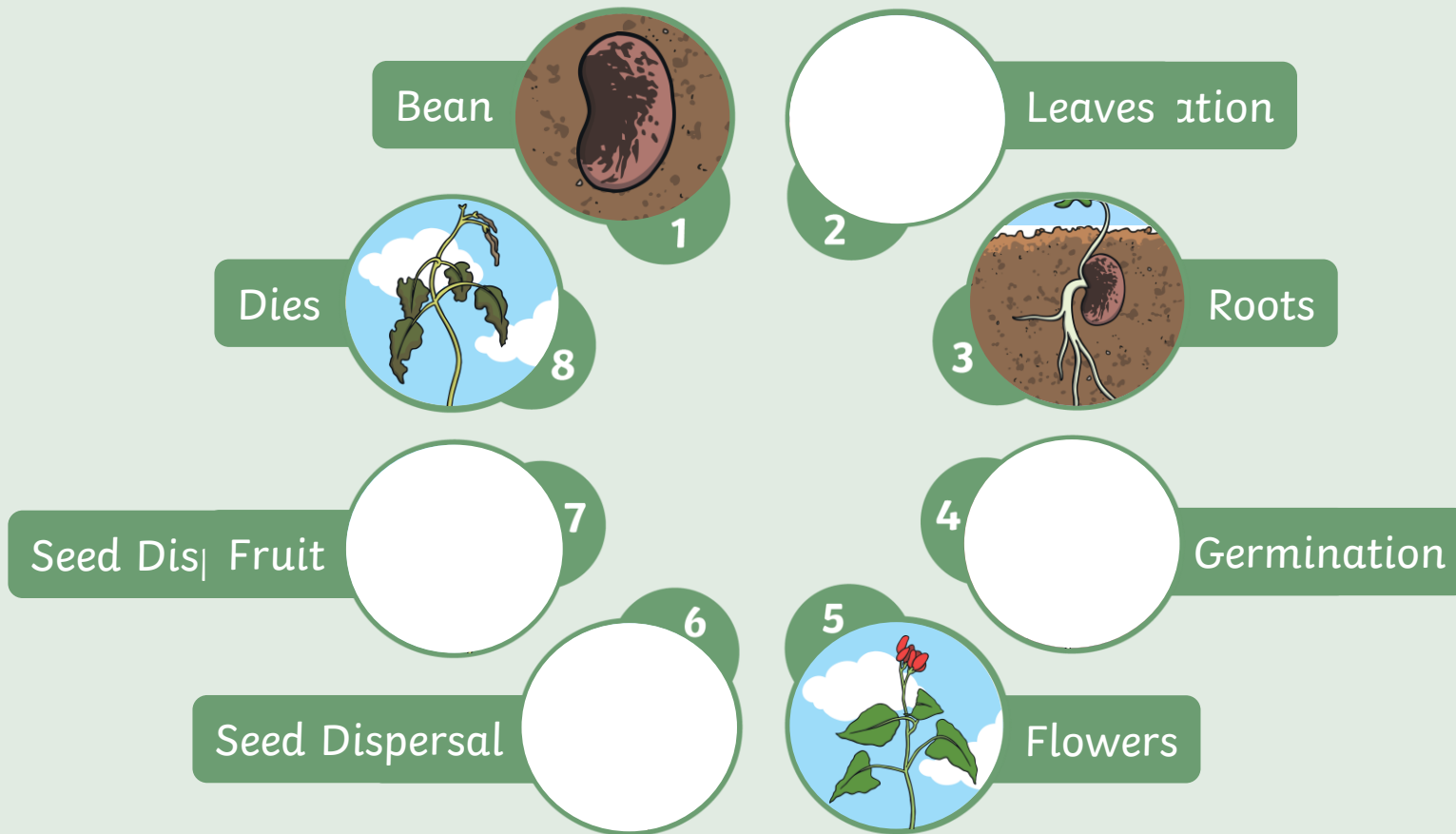
Class Plant Diary

Week: _____ [] The plant is _____ tall	Week: _____ [] The plant is _____ tall
Week: _____ [] The plant is _____ tall	Week: _____ [] The plant is _____ tall
Week: _____ [] The plant is _____ tall	Week: _____ [] The plant is _____ tall
Week: _____ [] The plant is _____ tall	Week: _____ [] The plant is _____ tall



Remember It

Can you spot which stages of this plant's life cycle have been mixed up?
Explain how you know.



WHAT DO PLANTS NEED TO STAY HEALTHY?



What Do Plants Need to Grow?

In Lesson 1, we started a test to find out what plants need to stay healthy.



















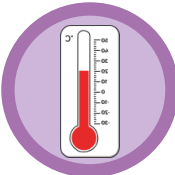
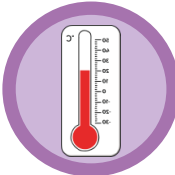


What did we **think** plants need to stay healthy?

How did we decide to find out for certain?



What Do Plants Need to Grow?

Today, we are going to look at our plants to find out **what happened**.

1.	2.	3.	4.	5.
				
				
				
				

What did we change each time?

What did you think would happen?

What Do Plants Need to Grow?

Today, we are going to look at our plants to find out **what happened**.

Let's start with the plant that had **everything** we think a plant needs to grow and stay healthy (Plant 1).

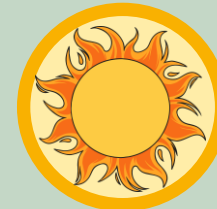
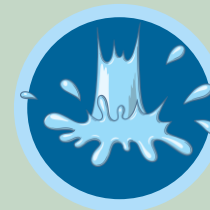
What can you see?

Is this what we thought would happen?

Were we right?

Did anything else happen?

1.



What Do Plants Need to Grow?

Let's record what has happened to Plant 1 on the **What Happened to our Plants? Activity Sheet**.



Plant 1 had **soil, water, light and the right temperature.**

This is what the plant looks like:

Has this plant grown? yes no

Is this plant healthy? yes no



What Do Plants Need to Grow?

Now let's look at the other plants.

For each plant, discuss:

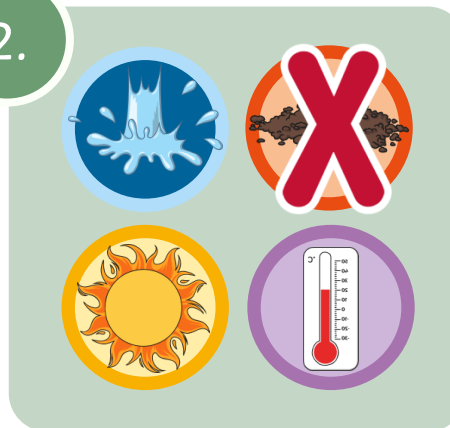
What can you see?

Is this what we thought would happen?

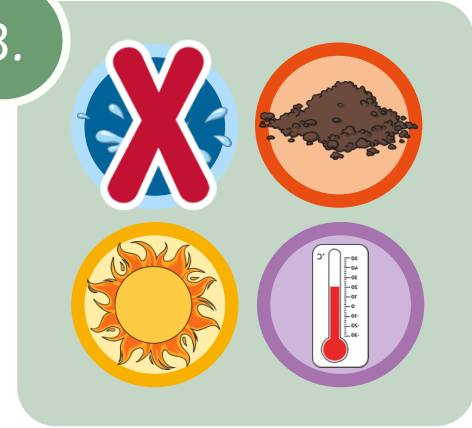
Were we right?

Did anything else happen?

2.



3.



4.



5.



What Happened to Our Plants?

We can record what happened to each of the other plants on the **What Happened to Our Plants? Activity Sheet**.

What Happened to Our Plants?

To explain what plants need to grow and stay healthy.

Observe your plants. Draw a picture of each plant and answer the questions about it.

Plant 1 had **soil, water, light and the right temperature**.

This is what the plant looks like:



Has this plant grown? yes no
Is this plant healthy? yes no

Plant 2 **did not have** _____

This is what the plant looks like:



Has this plant grown? yes no
Is this plant healthy? yes no

Plant 3 **did not have** _____

This is what the plant looks like:



Has this plant grown? yes no
Is this plant healthy? yes no

Plant 4 **did not have** _____

This is what the plant looks like:



Has this plant grown? yes no
Is this plant healthy? yes no

Plant 5 **did not have** _____

This is what the plant looks like:



Has this plant grown? yes no
Is this plant healthy? yes no

Word Bank



soil



water



light



the right temperature



REGENT STUDIES

Focused education on life's walk

www.regentstudies.com

What Do Plants Need to Grow Well?

When scientists have found out what happened in their test, they **compare** this to what other scientists have found out before, to see if it's what was expected.

So we are going to **compare** what happened to our plants to what other scientists think.

Which plant grew the most healthily? How do you know?

Did  From what we have observed, let's list what we now think **plants need to grow well**.  s is?

What happened to the plant without sunlight? Why do you think this is?

What happened  How does our list compare to what other scientists think? How can we find out?  nk this is?



What might a scientist do if they had surprising results in their tests?

x

servations? Why?



Growing, Growing, Grown

Let's learn more about **what plants need to grow well** in the **Growing, Growing, Grown eBook**.



Let's read up to the end of page 16 together.



Aim



- To explain what plants need to grow and stay healthy.


Success Criteria

- I can observe and explain what has happened to the plants in our test.
- I can suggest what has caused the plants to look like they do.
- I can suggest what things a plant needs to stay healthy based on my observations.


















Plants: What Do Plants Need to Stay Healthy? Part 1

Aim Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Using their observations and ideas to suggest answers to questions. To explain what plants need to grow and stay healthy.		Lesson Duration All timings are approximate.	
Success Criteria I can observe and explain what has happened to the plants in our test. I can suggest what has caused the plants to look like they do. I can suggest what things a plant needs to stay healthy, based on my observations.	Key Vocabulary Water, sunlight, temperature, soil, test, observe, observations, scientists, compare.		
Resources That May Need Purchasing None	Preparation Lesson Pack Differentiated What Happened to Our Plants? Activity Sheet - one per child or A3 per group Ensure that the plants from Lesson 1 are ready for children to observe.		

Prior Learning: In the previous lesson, children learnt about the life cycle of a plant and began to identify which stage in its life cycle a plant is at. In the first lesson of this unit, children set up an investigation to find out what plants need to stay healthy.

Learning Sequence

	Remember It: As a class, look at the class plant and record its growth in the Class Plant Diary . Use the Lesson Presentation to recap prior learning about the life cycle of a plant.				
	What Do Plants Need to Grow? Using the Lesson Presentation , review with the children the investigation they set up in Lesson 1 of this unit. Explain that today we are going to carefully observe the plants to find out whether we were correct about what plants need to grow well. Use the Lesson Presentation to begin to model how to look at each plant carefully and how to record our observations using the What Happened to Our Plants? Activity Sheet . Continue to model how to carefully observe and record results (you may or may not wish to use the term 'results' with your class) with the rest of the plants. Can the children explain what has happened to the plants? You could also ask children to think about how this compared to what they thought would happen (their predictions) and offer ideas about why things happened/did not happen.				
	What Happened to Our Plants? Children observe each of their plants and note down their observations using the What Happened to Our Plants? Activity Sheet . This may be completed either independently or in small groups, depending on how the investigation was set up in Lesson 1. Can the children explain what they can see, why they think this has happened and how it compares to what they thought would happen?				
	Children complete the sheet with their observations of what happened to the plants. They are supported with a word bank with symbols.		Children complete the sheet with their observations, make comparisons and explain their answers.		Children complete the sheet with their observations, make comparisons and explain their answers.

	<p>What Do Plants Need to Grow Well? Using the questions on the Lesson Presentation, ask each group to explain what they found out from their investigation. Note: If there are unexpected results, for example if the plant with no water grew, discuss with the children why this could be. Did something unexpected affect their investigation? Explain that this is what scientists would do if there were unexpected results.</p> <p>Ensure that children understand that without some of the things they need, plants may begin to grow, but may not grow as healthily. Look closely at the colour, shape and size of the plants to reinforce this understanding.</p> <p>Finalise, together as a class, a list of what plants need to grow well. This could be displayed on a working wall.</p> <p>Discuss how we can use our Growing, Growing, Grown eBook and other non-fiction texts to check that what we think is correct (according to other scientists).</p> <p>Can the children compare their results to those of the other groups in the class? Can they offer ideas about any similarities and differences?</p>	
	<p>Growing, Growing, Grown: Read pages 19-20 of the eBook together to learn more about what plants need to grow well, and compare this information to the results of our investigation.</p> <p>Can children compare their list of what plants need to the information in a secondary source?</p>	

<p>Exploreit</p> <p>Growit: Children could use their findings to plant and grow their own cress heads using egg shells. They could have a competition to see which cress head grows the longest.</p> <p>Tendit: Children could be given the opportunity to tend to a class or school plant/plants, using what they have learnt during the lesson to help them.</p>

<p>Reasonit</p> <p>Children discuss Reasoning Card 4 What Do Plants Need to Grow Well? Part 1, explaining why they think the plants have grown how they have, what might have happened and what a healthy plant should look like.</p>

Assessment

Scientific Knowledge	
<p>Working Towards the Expected Level</p> <p>With support, children begin to explain that plants need water, light and a suitable temperature to grow and stay healthy.</p>	Children:
<p>Working At the Expected Level</p> <p>Children explain that plants need water, light and a suitable temperature to grow and stay healthy.</p>	Children:
<p>Working At Greater Depth</p> <p>Children explain that plants need water, light and a suitable temperature to grow and stay healthy and explain the reasons why plants have or have not grown well.</p>	Children:
Working Scientifically	
<p>Working Towards the Expected Level</p> <p>With support, children can notice links between cause and effect and talk about their findings to a variety of audiences.</p>	Children:
<p>Working At the Expected Level</p> <p>Children can notice links between cause and effect and talk about their findings to a variety of audiences in a variety of ways.</p>	Children:
<p>Working At Greater Depth</p> <p>Children can notice links between cause and effect with support and talk about their findings to a variety of audiences in a variety of ways. They can also identify and discuss differences between their results.</p>	Children:

Aim: To explain what plants need to grow and stay healthy.				Date:					
				Delivered By:			Support:		
Success Criteria	Me	Friend	Teacher	T	PPA	S	I	AL	GP
I can observe and explain what has happened to the plants in our test.				Notes/Evidence					
I can suggest what has caused the plants to look like they do.									
I can suggest what things a plant needs to stay healthy, based on my observations.									
Next Steps									
<ul style="list-style-type: none"> _____ _____ 									

T	Teacher	I	Independent
PPA	Planning, Preparation and Assessment	AL	Adult Led
S	Supply	GP	Guided Practice

Aim: To explain what plants need to grow and stay healthy.				Date:					
				Delivered By:			Support:		
Success Criteria	Me	Friend	Teacher	T	PPA	S	I	AL	GP
I can observe and explain what has happened to the plants in our test.				Notes/Evidence					
I can suggest what has caused the plants to look like they do.									
I can suggest what things a plant needs to stay healthy, based on my observations.									
Next Steps									
<ul style="list-style-type: none"> _____ _____ 									

PPA	Planning, Preparation and Assessment	AL	Adult Led
S	Supply	GP	Guided Practice

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		

Plants | What Do Plants Need to Stay Healthy? Part 1

To explain what plants need to grow and stay healthy.		
I can observe and explain what has happened to the plants in our test.		
I can suggest what has caused the plants to look like they do.		
I can suggest what things a plant needs to stay healthy, based on my observations.		