



# Science

Plants



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# WHAT DO PLANTS NEED TO GROW?



# 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 design and set up a test to find out what plants need to stay healthy.

# Success Criteria

- I can identify when a plant is healthy.
- I can give my ideas about what plants need to stay healthy.
- I can suggest ways to find out what plants need to stay healthy.



# Remember It

Let's see how many **plants** we can name!



dandelion

daffodil

holly

bramble



Both of these plants have yellow flowers. Do all roses have yellow flowers? What about dandelions?

x

e



# Remember It

Let's see how many **plants** we can name!



sunflower

bluebell



Do you know which season bluebells grow in?

X



cypress tree

holly tree

maple tree



# Remember It

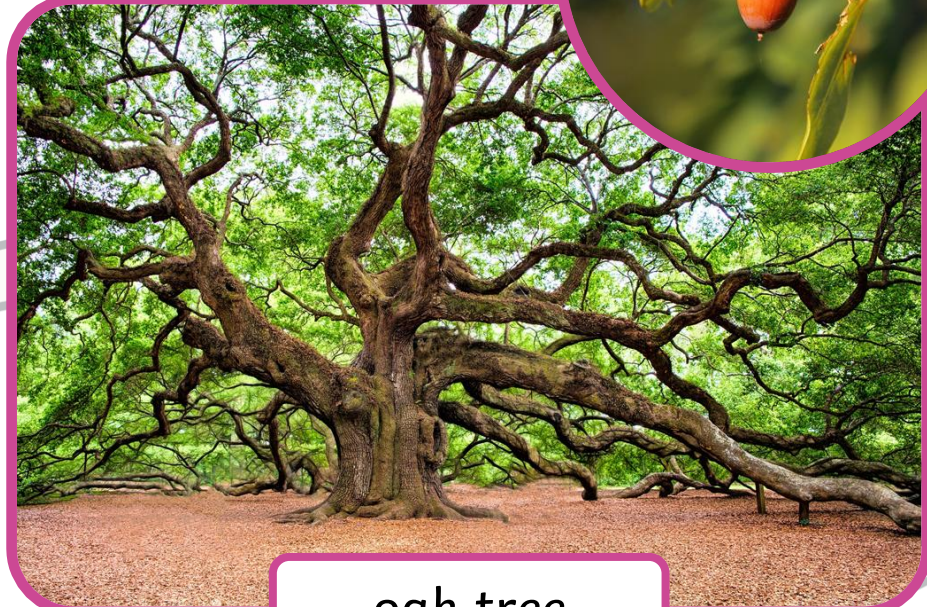
Is each tree **evergreen** or **deciduous**?



cedar tree

**evergreen**

**deciduous**



oak tree

**evergreen**

**deciduous**



# Remember It

Can you name the **parts** of the plant?

flowers

leaves

stem

roots

fruit





# Growing, Growing, Grown

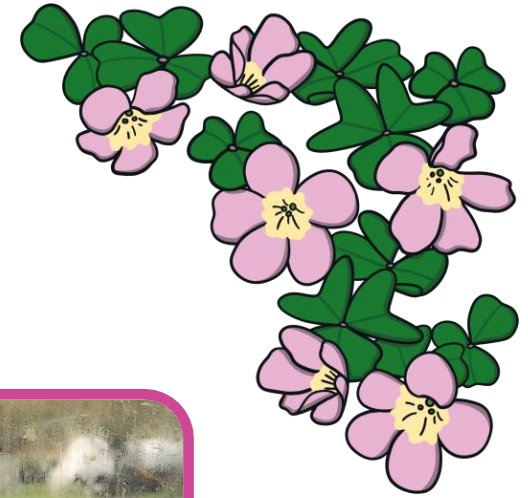
We will be reading this eBook as we learn more about **plants**.



Let's read up to the end of page 6 together.







# Healthy or Not?

Look carefully at these plants.



Which one do you think is **healthy**? Why?

Which one is **not healthy**? How do you know?

What do you think happened to the plant that is **not healthy**?





# What Does a Plant Need to Grow and Stay Healthy?




Do these plants look **healthy** or **not healthy**? Explain why.



What do you think these plants might need to be **healthy**? Let's write a list together of the things we think plants need.

# What Does a Plant Need to Grow and Stay Healthy?

We have ideas about what plants need to grow. How do you think we can find out for **certain**?



We could **test** our ideas!

Scientists **test** their ideas to find out if they are right.





# Testing Our Ideas

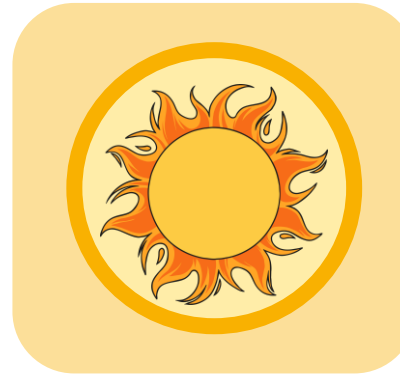
We are going to test whether plants need these things to be healthy:



Water



Soil



Light



The right temperature

**But...** how would we know whether it would have grown **without** each of these things? We would have to test that too!

Discuss what you think we could do with your partner.



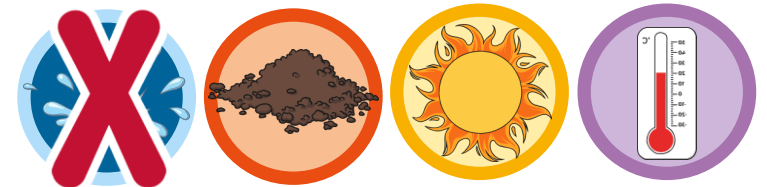
# Testing Our Ideas

To see if our plant would grow well **without** each of these things, we could plant more seeds and remove **one thing we think they need each time**.

We could plant one **without soil**, but give it the right temperature, water and light.



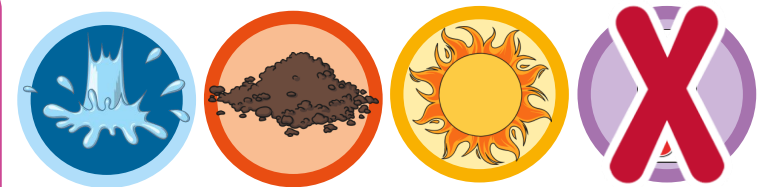
We could plant one and keep it **without water**, but give it soil, light and the right temperature.



We could plant one and keep it in a place **without light**, but give it soil, the right temperature and water.



We could plant one and keep it somewhere **without the right temperature**, but give it soil, light and water.





# Testing Our Ideas

Some types of plants grow much more quickly than others and some types of plants grow better in cooler or drier places.

So, to make our test fair, we will use the **same type of seed** for every plant.

We will observe (look closely and carefully at) our plants over a few weeks to see how they grow.

How will this test show us what a plant needs to grow and stay healthy?  
Discuss with your partner.



# Setting Up a Test

First, let's prepare the plant that will be given **everything** we think it needs to grow.

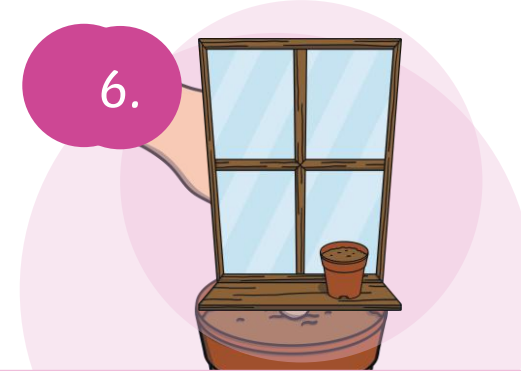
We will observe this plant to see how it grows. We will measure how big it is every week and draw or photograph it for our **Class Plant Diary**.



Cover the seed over with soil.



Water your seed (but not too much).



Once you have planted your seed, label it with the number **1** and your names and put it in our warm, safe place.



# Setting Up a Test

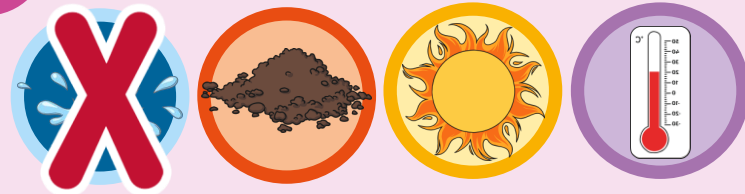
Now, let's plant the other seeds.

This time, we will make sure to miss out one thing each time. Remember to label them with your names **and** its number (from 2-5).

2.



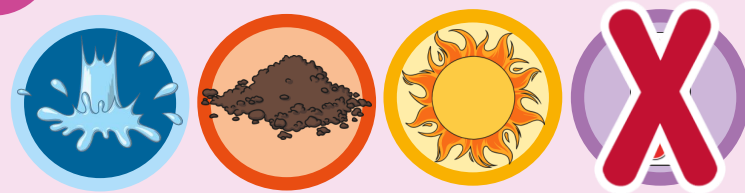
3.



4.



5.



# What We Did

Now that we have planted our seeds and put them in the correct places, we can **record what we did** on the first page of our **What Does a Plant Need to Stay Healthy? Activity Sheet**.

This will help us to know what happened to each plant when we look at them again in a few weeks.



## What Does a Plant Need to Stay Healthy?

To design and set up a test to find out what plants need to stay healthy.

### What We Did

We are testing what a plant needs to grow and stay healthy. We have planted seeds in 5 different pots. Draw a picture showing what each pot will have and write what will be missing for each one.

Pot 1 has soil, water, light and the right temperature.



Pot 2 will **not** have \_\_\_\_\_

Pot 3 will **not** have \_\_\_\_\_

Pot 4 will **not** have \_\_\_\_\_

Pot 5 will **not** have \_\_\_\_\_

### Word Bank

water  
soil  
light  
the right temperature





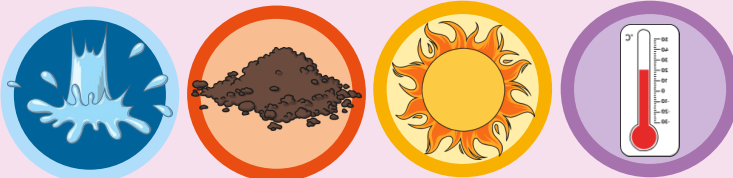
# What Do You Think Will Happen?

Scientists use tests or experiments to try to prove their ideas. To do this, they have to say **what they think will happen** in each part of their test.

What do you think will happen to each of the seeds you planted?

Which ones do you think will grow healthily?

1.



2.



3.



4.



5.



Discuss in your group.

# What Do You Think Will Happen?


Now, fill in the 'What We Think Will Happen' section of your **What Does a Plant Need to Stay Healthy? Activity Sheet**.

**What Does a Plant Need to Stay Healthy?**

**What We Think Will Happen**

Write what you think will happen to each plant. You can use the word bank to help you.

Pot 1 _____ _____ _____ _____	Pot 2 _____ _____ _____ _____	Pot 3 _____ _____ _____ _____
Pot 4 _____ _____ _____ _____	Pot 5 _____ _____ _____ _____	<b>Word Bank</b> not healthy   healthy   big small   yellow   green brown wilted strong



**Challenge!** Do you think there will be anything about our test that will be tricky to do? Write a sentence on your whiteboard to explain.

\_\_\_\_\_



# Aim



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