Science

Plants

What Do Plants Need to Grow Well?

Aim

- I can set up an investigation to find out what plants need to grow well.

Success Criteria

- I can think about what plants need to grow well.
- I can think of a question to investigate.
- I can predict what will happen in my investigation.
- I can plan what I will do to set up my investigation.
- I can set up my investigation carefully.

What Do Plants Need?

Whole Class

Plants are living things.
There are **7 life processes** that tell us if something is alive.

The 7 life process are movement, respiration, growth, reproduction, excretion, nutrition and sensitivity. Plants do all 7 of these things.

Plants need certain conditions to help them grow well.

Have you ever looked after a plant? What did you have to provide it with to help it to grow?

What do you think plants need? Share your ideas with your class.

How Can We Find Out?

Today we are going to find out exactly what plants need to grow well.

Scientists find things out by setting up investigations and gathering results.

There are different types of investigation: fair tests, comparative tests, exploring and observing, finding patterns or sorting and classifying.

Scientists choose which type of investigation is best for what they are trying to find out.

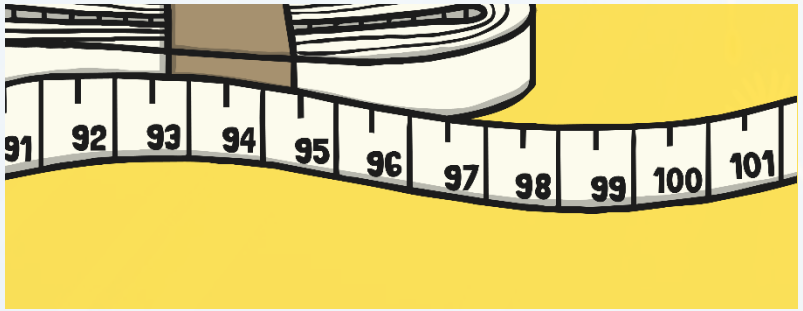
How Can We Find Out?

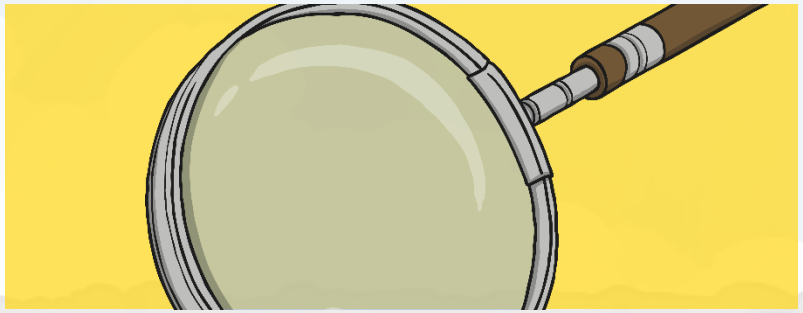
This will be an **exploring and observing investigation**, so you can see what happens to your plants in different conditions.

You will work in pairs to investigate the things plants need to grow well.

You will use your Investigation Planner to record your ideas.

When you are ready, you will get a healthy plant and set up your investigation.





What Are You Going to Investigate?

Scientists start with a question that they want to investigate.

Work with your partner to choose one of the questions below to explore in your investigation.

What happens if a plant has no water?

Can a plant grow in the dark?

If a plant has no heat, will it still grow?

Challenge: Can you think of your own question to explore?

When you have decided, complete your Investigation Planner.

What Do You Predict Will Happen?

Before setting an investigation up, scientists think about what they will find out. This is called 'making a prediction'.

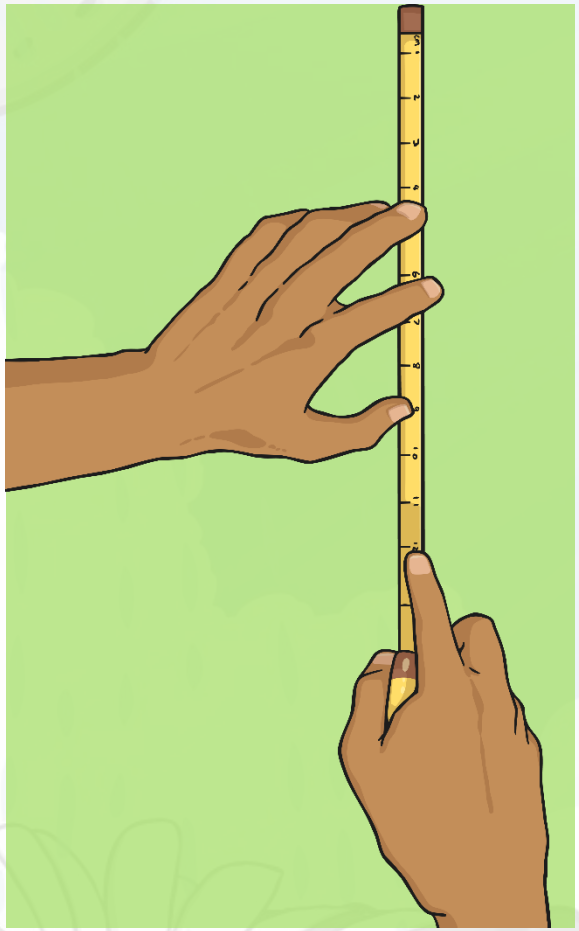
When you make a prediction, you say what you think will happen in your investigation.

Talk to your partner about what you predict will happen in your investigation.

Challenge: Can you explain why you predict this will happen?

Add your prediction to your Investigation Planner.

What Are You Going to Do?



Work with your partner to plan what you are going to do in your investigation.

You could use pictures, words or both to explain your ideas on your Investigation Planner.

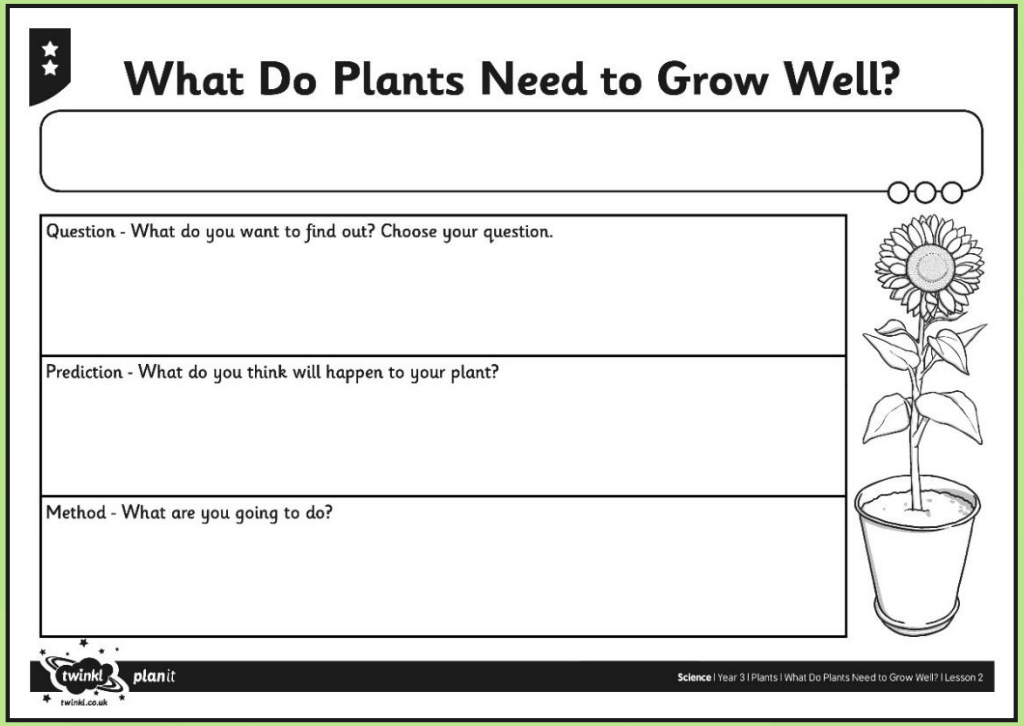
Don't forget to measure the height of your plant so that you can tell if it has grown taller at the end of the investigation.

Set It Up!

When you are ready, collect your plant and set up your investigation!

You can use your Investigation Planner to help you remember what you need to do.

Make sure you are very careful when handling the plants. Always wash your hands after touching the plants.



What Do Plants Need to Grow Well?

Question - What do you want to find out? Choose your question.

Prediction - What do you think will happen to your plant?

Method - What are you going to do?

Set It Up!

Now your investigation is set up, you will need to watch your plant carefully.

When scientists look carefully at things, it is called ‘observing’, or ‘making an observation’.

Over the coming days, observe your plant regularly and see if you notice anything.

If you do observe anything happening or changing, record it on your Recording Results Sheet.

When you have completed your observations, you will look at your results and think about what you found out.

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