ST ANDREW THE APOSTLE

Science Passport

What is Science?

You will have already learnt a lot of science at primary school. What do you think science is?

I think science is

Science can help us answer questions we have about the universe like:

What lives beneath the oceans?

Why are there no volcanoes on Jupiter?

At secondary school you will learn how to collect scientific data and perform awesome experiments safely. Try these experiments at home to start your science adventure!

Sweet Science

Who doesn't love sweets! Try this tasty Chemistry experiment at home.


ajafoto/Getty Images

Instructions

1. Fill both cups with water
2. Add the salt to one cup (remember which one)
3. Place one bear in each cup and wait a few hours
4. Measure the height of the bears with a ruler

Cup	Height / mm
water	
water + salt	
no cup	

Don't eat the bears in the cups after!

Equipment List

- 3 gummy bears
- 2 cups
- 2 tbsp salt

What happened to the bears?

The bears got

The bears absorbed some of the water!
This process is called **osmosis**.
Find out more here: **bit.ly/3ftiLrs**

Pro Tip: Take photos of your experiments, you'll want to keep a record of your achievements!

Colourful Flowers

Equipment List

- water
- food colouring
- drinking glasses
- sugar
- white flowers

Make a rainbow bouquet with this Biology experiment!

Instructions

1. Fill the glasses with water and add a tsp of sugar
2. Colour the water with the food colouring

   Tip: Make each glass a different colour!
3. Cut the flower at the stem and place it in the water
4. Take a photo or draw what you see every 10 mins

What happened to the flowers?

The plants' **xylem** cells pull water up to the petals dyeing them! Find out more here: **bit.ly/35RIAgD**

Pro Tip: Make your own stop motion animation with all your pictures @ ezgif.com/maker

Green Fingers

This experiment is special. Along with your passport you have been sent a bean!

Your mission: grow the bean! Are you ready for the challenge?

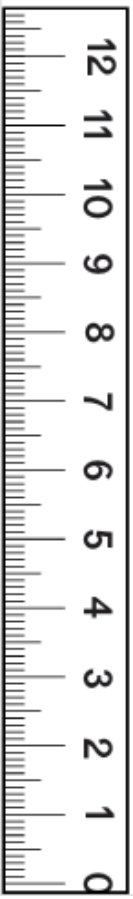
What type is it you ask? Who knows! You'll have to work that out.

Growing your bean:

1. Soak the bean in water for 1 hour
2. Put damp tissue paper around the inside of a jar
3. Place the bean between the damp tissue and the jar
4. Keep it moist and in a well-lit area

Equipment List

- bean
- tissue or toilet paper
- jar or drinking glass
- love



You should see sprouts in 4 days! Measure the length of the root each day in the table below. When leaves appear measure the length of a leaf.

Day	Root length / mm	Leaf length / mm
4		
6		
8		
10		
12		
14		
16		
18		

Use the ruler on the left. If there is more than one root or leaf pick one to keep track of!

Which grew first, leaves or roots?
Which grew the most in the first week?
Can you identify the type of bean as it grows?

Fun Fact: Jelly Beans are not real beans! They are tasty sweets.

Mastering the Force

Equipment List

- balloon - aluminium can

Instructions

1. Blow up and tie the balloon
2. Rub the balloon on your head
3. Turn on your tap just a little
4. Place the balloon near the water

Bend water like a Jedi with a balloon!

What do you see?
Does it work with the can?

Object	Movable
water	yes!
can	

Rubbing a balloon on your head makes **static electricity**.
This **static** attracts water and other objects!
Find out more here: **bit.ly/3dEWEws**

Try moving a third object you find!

Curious Yet?

Write some questions you want answered by your new science teachers below:

I want to know