

# Science Challenge



## Dominant Side

You are going to explore your dominant side. This means thing about which side of your body you mainly do things.

- Are you left or right-handed?
- Wink, which eye stays open?
- Go outside with a ball; Drop a ball on the ground and kick it. Which foot did you use?

You could be right-handed but still rely more on your left eye. Let's see!

Hold your arms straight out in front of you and make a triangle-shaped space with your hands, as shown.



whizzpopbang.com

With both eyes open, look through the triangle at an object. Slowly bring your hands towards your face while still looking at the object. When your hands reach your face, the triangle will be in front of your dominant eye.

Scientists don't know why, but around 90% of people are right-handed, around 80% are right-footed and around 70% make more use of their right eye. So there are a lot more Right dominant people.

# Technology Challenge



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## Camera Work

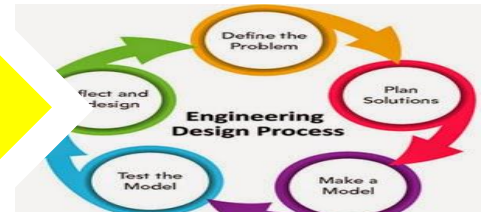
**Capture key moments** – Can you record five key moments in your day? Your recordings can be on a still photo with an explanation of what is happening or you may wish to make a short video of your key moment. Using technology can help you remember what learning you have done and it also can be evidence that you can share with parents or your teachers to show that you have been busy.

1. You can take a still photograph and add an explanation to go with it, either written or typed. You may be able to use tools to record your voice, explaining what your pictures show.
2. You could record your key moment using a short video. This is a good way to record your key moments as they have sound and video as well as letting you show real time examples and demonstrations of your work.
3. If you prefer, you could simply make drawings of your key moments of learning throughout the day. Make sure you annotate your drawings and add in any labels to demonstrate your learning as clearly as possible.

There are many different forms of technology you could use at home. There is a list here to give you some ideas but use whatever you have to hand. Remember... always ask for permission that you can use the technology.

1. Mobile phone
2. Tablet
3. Camera
4. Camera on your laptop or computer
5. Webcams
6. Paper and pencils/pens

# Engineering Challenge



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## Wind Power

### The challenge:

To build a wind turbine that will lift a paper cup off the floor when powered by a hairdryer. Research what a turbine needs to work and how it works. There is a clue in the diagram as to how you might build yours.

You will need:

### For the Model

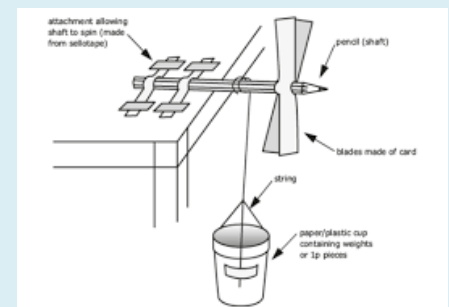
Card, straws, paper, cotton reels, cocktail sticks, wooden skewers, tape, blue tack, string, something to make holes with – anything you can get your hands on to build with! (None of these are essential).

### For the Testing

Hairdryer, cup or container, weights eg. Coins or lego, ruler.

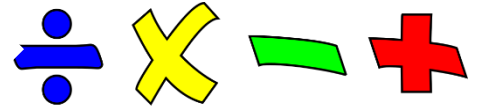
Things to consider in your design:

1. shape of the blades
2. size of the blades
3. thickness of the blades
4. number of blades
5. how the shaft is attached to the desk



Hazwebs.co.uk

# Maths & Numeracy Challenge



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## Surveys

This week's challenge is to conduct a survey. For example you may wish to observe cars and other traffic on a nearby road (If this is one that you choose, please do so at a safe distance from the road!)

You may wish to conduct your survey on:

- Vehicles
- Bird visiting your garden or local park
- Weather or temperatures over a day or week
- Create a question that you could ask family members( survey) and collate the answers that they give you

Before you start, create categories to collect data on and challenge yourself to come up with your own questions to answer e.g. survey the colours of cars to find what is the most common colour of car.

Once you have gathered the information, have a go at representing it in different ways. There are a range of graphs and charts that you could choose to display your findings.

- Bar charts
- Pictographs
- Line graphs
- Venn diagrams
- Tally charts

If you can be more inventive and come up with a different way to display your information, then please have a go.

# Literacy Challenge



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## Characters in a Story

Choose a story or chapter from a novel to read. This can be a book you have at home, one your teacher has set for you to read, or a book online such as George's Marvellous Medicine by Roald Dahl.

Click the link to listen to George's Marvellous Medicine –

<https://www.youtube.com/watch?v=7KdR1MFb1ks>

There are lots of other great books online too!



Once you have listened carefully to the story or read a chapter of your own book, reflect on the characters in your book. Think about the traits and characteristics that the main character has. If there is more than one main character, choose one to focus on. How does this character interact with other characters in this book? What do they look like? What is their personality like? How do they influence the events in the chapter/book?

Have a go at making a character profile for this character. Using a piece of paper or a black Word document, create your profile. You can include information about the characters appearance, personality, relationships with other characters, actions and even draw a picture of them. Don't forget to use exciting adjectives to describe the character.

Your character profile may look something like this –

Character Profile	
Name _____	Picture
Appearance _____ _____	
Personality _____ _____	
Relationships _____	
Actions _____ _____	



# Health & Wellbeing Challenge

## Circuit Training

It is time for some exercise! Today we are going to do some circuit training. Circuit training involves doing a number of exercises in a specific order. These exercises can be timed or include a certain number of actions, ie. 20 star jumps.

It is your job to come up with your own circuit! Think of 6-10 exercises that can be completed in your house or garden. You can use sports equipment such as a football if you have things at home, or this can be done with no equipment at all! When coming up with your exercises, consider planning activities that test-

1. Different muscle groups, such as your leg muscles and arm muscles.
2. Your speed
3. Your hand-eye coordination
4. Your balance



Once you have written down your plan, and tested it out yourself, it is time to test it on someone else in your house! Think about organising your space so it is suitable for them to complete the activities, as well organising equipment if you used any. Pretend like they are an alien from another planet and know nothing at all about exercise! Make sure you explain everything in detail.

When they are completing your circuit, evaluate their performance. What did they do well? What could they work on for next time?

**Extension – Since you have already taught your circuit to one person, why not teach it to someone outwith your household by making a video? You are now going to be Joe Wicks for the day! Make sure to explain your circuit activities whilst completing them yourself, just like PE with Joe.**

# Social Studies Challenge



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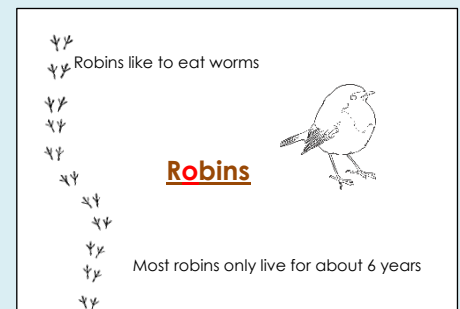
## Big Garden Birdwatch

The Royal Society for the Protection of Birds (RSPB) is a charity which was created many years ago to protect the lives of birds in the UK. This charity is still running today! In a few weeks' time, the RSPB are holding a Big Garden Birdwatch. During this weekend, you can spend time in your garden on the lookout for some birds. There are lots of different species (types) of bird that you might see! Can you think of any types of birds you have seen in and around your garden before? Or maybe when you have been out for a walk?

Bird watching has lots of benefits. It can help lift our moods and spirits! It is a good way to get fresh air outdoors and spend time with family while getting to explore our local area.

To prepare for the Big Garden Birdwatch, you can have a go at completing the activities below. These will help to improve your knowledge of birds and birdwatching!

1. Head outside to do some birdwatching. Pay close attention to the birds. What do they look like? What colour are they? Are they big or small? Have a go at drawing and labelling them.
2. Think of a bird you saw when birdwatching. Let's find out the species of it! Click the link to head to the RSPB website and answer questions to identify the bird.  
<https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/identify-a-bird/>
3. Have you ever wondered what type of bird you would be if you were a bird? Take a quick quiz to find out!  
<https://www.rspb.org.uk/get-involved/activities/birdwatch/which-garden-bird-are-you/>
4. Pick one bird you've seen and research. You may be able to find some interesting facts or videos about this bird online. Using the information you find, create a mind map or sketch note about this bird. You can use Microsoft PP or Sway to create this, or use paper. Your mind map or sketch note may look something like this -



# Expressive Arts Challenge



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## Winter Birds

To help us prepare for the RSPB 'Big Garden Birdwatch', complete the art activity below-

### How to Draw a Robin

Have you ever created a piece of art by following step-by-step instructions from a video? Today we are going to be drawing a Robin by following instructions from the 'How 2 Draw Animals' Youtube tutorial.

You will need-

- A piece of paper or jotter
- A sharpened pencil
- A rubber
- Colouring pencils (if you have some at home)

Take your time with your drawing. Follow each step and pause the video to draw at your own pace. When you are drawing, think about **shading** and **texture**. These **visual elements** of art can help make our robin look more realistic and true to life.



Click the link below to access the video-

<https://www.youtube.com/watch?v=S-7nKNxFgI4>