

# Science Challenge



## Static Electricity

Did you know that there are different types of electricity? One type is called static electricity. Amazingly we see static electricity every single day; it even builds up on us. Wow! Have you ever rubbed your feet on the carpet and then zapped something when you touch it?

Well, that's exactly what static electricity is.

If you've had a bad hair day and it sticks straight up, this means that your hair has been charged. Maybe you don't want to go to school like that!

### What you'll need:

- 2 inflated balloons
- Your hair
- Aluminium can
- Woolen fabric (your jumper or a scarf)

### Experiment:

1. Rub the 2 balloons one by one against the woolen fabric, then try moving the balloons together. Are they drawn to each other or do they push away from each other?
2. Rub 1 of the balloons back and forth on your hair then slowly pull it away. Ask someone nearby what they can see or if there's nobody else around try looking in a mirror.
3. Put the aluminium can on its side on a table, after rubbing the balloon on your hair again hold the balloon close to the can and watch as it rolls towards it, slowly move the balloon away from the can and it will follow.

Have a look at this video which explains a little more about what is happening.

[The Science Guy](#)

# Technology Challenge



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## Computer Keyboard

Everyone has been working from home for almost a year now and we have all had to get used to using computers and technologies much more often to complete our tasks.

There is lots of typing, using passwords and usernames, as well as typing stories and answers to questions. You may even have to email your teacher to ask a question or to send a piece of work to them.

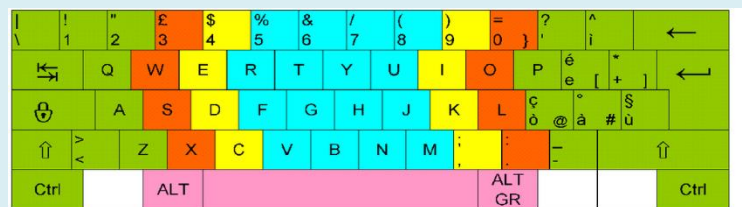
However, you are using technology, knowing where all the keys are on a keyboard is important to make sure all these jobs don't take all day to complete.

This week you are going to practice your keyboard skills with some games that are listed below. Click on the different links to take you to a new game and follow the instructions to improve your skills.

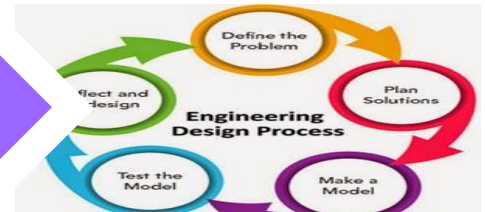
[Dance Mat Typing](#)

[Typing.com - For complete beginners](#)

[Typing games](#)



# Engineering Challenge



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## Gingerbread Man Trap

### Gingerbread Man Trap

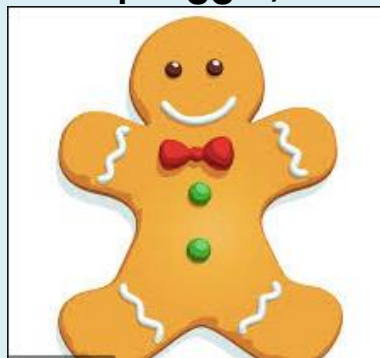
Here is the story of The Gingerbread Man [Animated Story](#)

**Help! The Gingerbread Man is escaping!**

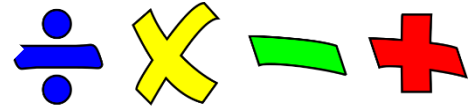
**Can you make a trap to catch him?**

**Can you design and build a trap to capture the Gingerbread Man before he manages to get away?**

- How will you make sure the Gingerbread Man doesn't see it?
- How will your trap work?
- How will you stop him getting out?
- What will it be made from?
- Is there any way you can make your trap stronger?
- Do you need more tape?
- Do you need to make the trap bigger/smaller?



## Maths & Numeracy Challenge



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### Adding Dice

Here are two dice,



If you add up the dots on the top, you'll get 7.

Find two dice to roll yourself. Add the numbers that are on the top.  
What other totals could you get if you roll the dice again?

Try to find out how many different combinations of numbers there are.

Is there a number that you get when you add the dice together, which is more common than the others?

If you don't have two dice, don't worry. The link below will take you to virtual dice.  
When you press the 'roll dice' button, it will roll the dice on the screen for you.

[Virtual Dice](#)

# Literacy Challenge



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## Roll and Spell!

Let's have a go at some spelling today.

Below you will see a number of different sound families that you may have learnt in the classroom. They all have a number.

1. **ea/ee** (as in read/tree)
2. **ow/ou** (as in cow/mouse)
3. **oo/ou/ew/ue** (as in pool/soup/grew/glue)
4. **ay/ai/ey/** (as in pay/rain/grey)
5. **sh/ch/th/tch** (as in fish, chop, thin, catch)
6. **Magic 'e'** - a\_e, i\_e, u\_e, o\_e (as in cake, fine, cute, rope)



Image from <https://pixabay.com/illustrations/alphabet-abc-letter-learn-read-1223623/>

If you have dice at home, you will need one for the challenge. If you do not have one, click [here](#) to access an online dice roller.

Roll your dice and look at the number it lands on. Whichever number it lands on, have a look at the corresponding sound family. You will be completing an activity using this sound family! For example, if your die lands on 3, you will be working with oo/ou/ew/ue words.

Using the sound family you landed on, have a go at thinking of some words from this sound family.

How many can you think of?

Remember to stick to the spelling rules given, ie. oo/ou/ew/ue.

Have a go at writing them down and have a family member check the spelling of them.

How many did you spell correctly? Did you spell any incorrectly?

**Fancy an extra challenge?** How many words can you come up with in **1 minute**?

**Roll the dice to repeat this challenge as many times as you like.**



# Health & Wellbeing Challenge

## Unsafe Situations and Emergencies

Today we are going to be learning all about emergencies. What do these things mean? How might someone get into an unsafe situation or an emergency?

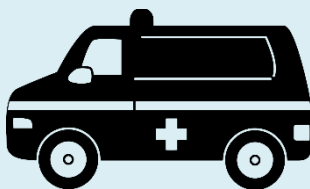


Image from <https://pixabay.com/illustrations/vehicle-ambulance-rescue-emergency-589015/>



Image from <https://www.shutterstock.com/image-vector/safety-first-sign-460444>



Image from <https://pixabay.com/illustrations/police-vehicle-car-police-car-589015/>



Lookout Lion shows what to do in an emergency in this video - <https://youtu.be/ZxzewVTDas0>

### Emergencies.

Have a chat with an adult about what this means.

- Can you think of any scenarios that are emergencies?
- Who can we contact when there is an emergency?
- Think about people other than your family- what services are there to protect us and help us in an emergency?

Have a go at researching the different **emergency services**. Make sure to find the **phone numbers** you would use to contact them as well as what they can do to **help** you.



Image from <https://pixabay.com/photos/coast-guard-kirby-lifeboat-coast-guard>

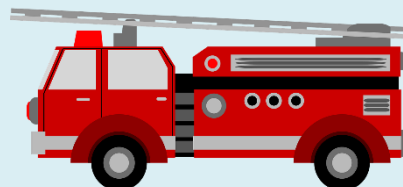


Image from <https://pixabay.com/illustrations/fire-truck-vehicle-178256/>



# Social Studies Challenge



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## Fairtrade Fortnight

This year, Fairtrade Fortnight is taking place between **22<sup>nd</sup> February to 7<sup>th</sup> March**. It takes place every year, and during this time, people from the UK come together to talk about the lives of farmers across the world, particularly in **developing** countries such as **Columbia, Costa Rica** and **Ghana**. These farmers make lots of food that we eat here in Scotland, and often don't get paid enough money for their hard work. Fairtrade working is helping to get these farmers more money for their work.

There are lots of foods that are produced under Fairtrade. Click the link below to watch a video called '**A Fair Tale**'. It tells the story of a cocoa farmer and his daughter Emily, as well as the journey their cocoa makes and the importance of **Fairtrade**.



Image from <https://www.fairtrade.org.uk/what-is-fairtrade/using-the-fairtrade-mark/>

<https://schools.fairtrade.org.uk/teaching-resources/fairtrade-story-a-fair-tale/>

**Once you have watched the video, discuss these questions with a family member-**

- How were the people of Ghana affected when they did not do Fairtrade?
- What are the benefits of Fairtrade?
- Have you seen the Fairtrade logo in the shops before?
- What other food items are can be Fairtrade?

Part of the video shows the journey of chocolate, from the cocoa farm to shops around the world! Have a go at **creating a poster, fact file** or **timeline** to show the journey of chocolate. Draw pictures to show each stage of production and have a go at writing some information for each step.



Image from <https://pixabay.com/photos/cacao-cocoa-chocolate-food-3995994/>

# Expressive Arts Challenge



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## Sketching Animals

Today we are going to do some **sketching**. As we are still in Winter, our artwork today is going to be all around **sketching** Garden Birds. Have you ever seen a bird in your garden? Do you know the names of any Garden Birds?

We are going to be drawing a **Bullfinch** today. To help us in our drawing, we are going to follow a step-by-step video by **Sketching with Lucy**. She has many videos which teach us how to draw different animals including birds and marine animals such as an octopus!

Click the link below to watch **Garden Birds – Bullfinch** video by **Sketching with Lucy**. Remember- you can pause the video step by step so no need to rush through your sketching!

<https://www.youtube.com/watch?v=WYygRTu1hw0>



Did you hear any facts about the Bullfinch during Lucy's video? Tell a family member one fact that you learnt while drawing.

What is the sound of the Bullfinch? Can you try and recreate this sound? You could whistle, play an instrument or try and make the noise in a new and creative way!

**Once you have finished your drawing, keep a lookout in your garden for any Bullfinches! If you don't see any Bullfinches, have a go at researching images of Bullfinches. Do they look similar to the sketch that you have created?**