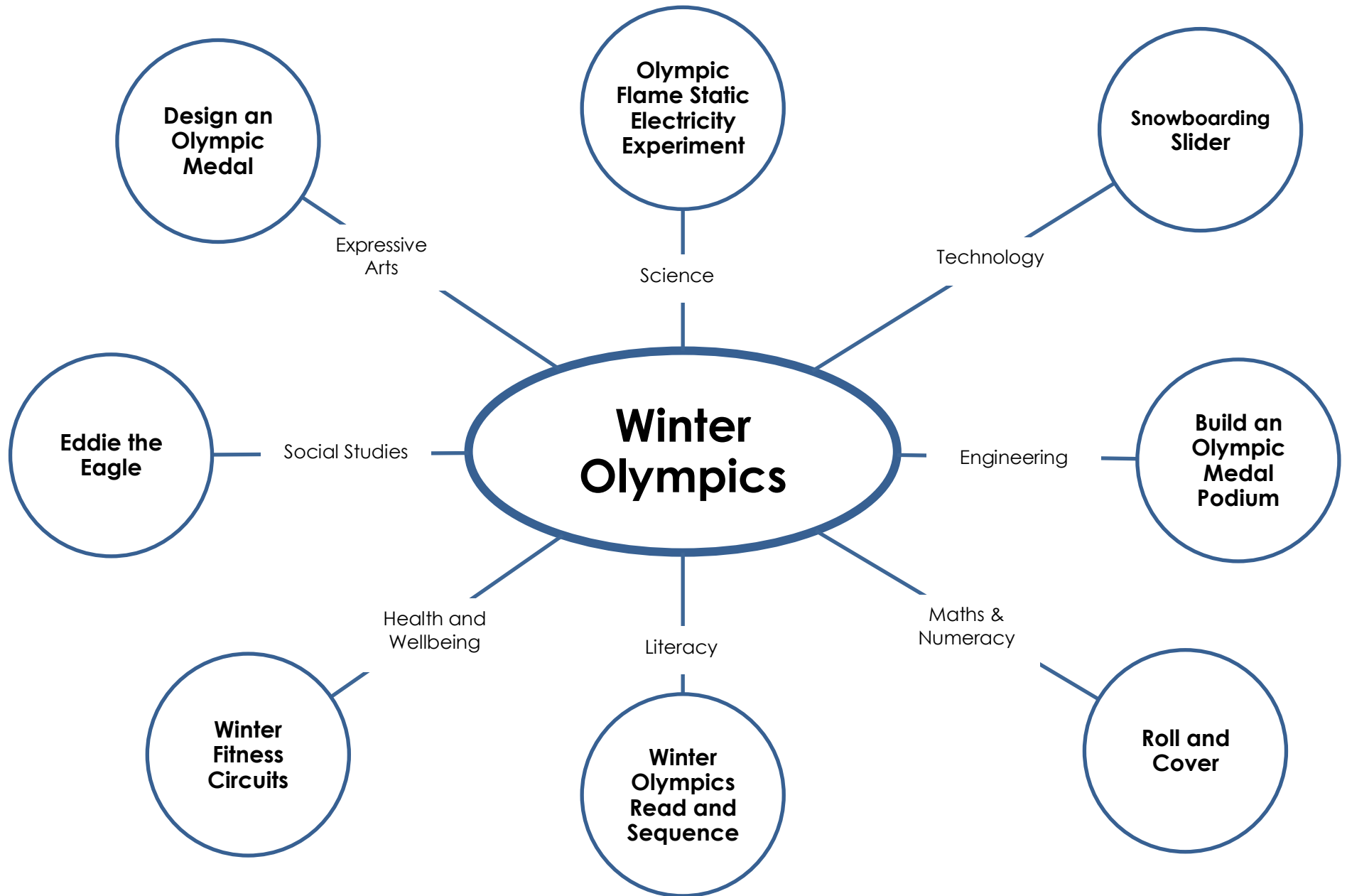


Learning from Home



Science Challenge



Olympic Flame Static Electricity Experiment

Adult Support Required

Today we will make our own Olympic torch with tissue paper flames. We will then use static electricity to make the flames flicker.

You will need:

- Cardboard from a cereal box
- Coloured tissue paper (red, yellow, and orange, if possible)
- Glue stick and **scissors**
- Black marker pen
- Blown up balloon



Activity and photos from
<https://jdaniel4smom.com/>

To learn more about static electricity click here:

<https://www.youtube.com/watch?v=5TAIUCYMIIQ>

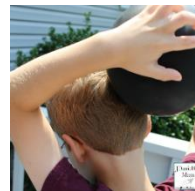
Putting the Torch Together:

Cut out a torch handle from some cardboard taken from the side of a cereal box. You can cut out the torch freehand as it is a simple shape to draw (like a large ice cream cone) **Ask an adult for help cutting out.**

Cut out a few flame shapes from the tissue, then glue one flame onto the torch at a time. Glue on the tissue flames in several rows. Swap between each of your colours if you can as this will make them most look like proper flames.

Method:

1. Rub a balloon on a piece of wool, on a carpet **or** on your hair.
2. After gathering electricity, you now rub it on the Olympic torch's flames.
3. Try to make all of the flames move. You may want to try to move one section of the torch at a time.



The Science:

Static electricity is a build-up of electrical charge on the surface of an object. The reason that it's called **static** electricity is because the charges stay in one area for some time and don't flow or move to a different area.

A static charge happens when two surfaces touch each other, and the electrons (tiny negatively charged particles) move from one object to another. One of the objects will have a positive charge and the other a negative charge. If you rub an object quickly, like a balloon, or your feet on the carpet, these will build-up a large charge. Items with different charges (positive and negative) will attract each other like a magnet. So, when you hold your charged balloon over the paper flames, the negatively charged surface of the balloon attracts the positively charged flames. This causes the tissue paper flames to look like they are flickering.

Technology Challenge



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Snowboarding Slider

Today you will be making an interactive paper plate craft which makes use of a slider mechanism.

You will need:

Paper plate, blue paint, white paper (tissue/wallpaper), paintbrush, scissors, lolly stick, glue stick, scissors, crayons or coloured pencils

Instructions:

1. Cut out a path for the snowboarder to follow on the paper plate. (Draw a wavy line as a guide just below the middle of the raised part of the plate)

Ask a grown up for help if needed.

2. Paint the top of the plate blue to represent the sky.
3. Cut curved strips out of the white paper. Glue the strips onto the paper plate to give the snow a three-dimensional (3D) feel.
4. Colour the snowboarder.
5. When you have finished decorating your snowboarder, cut it out and glue a lolly stick to the back of it.

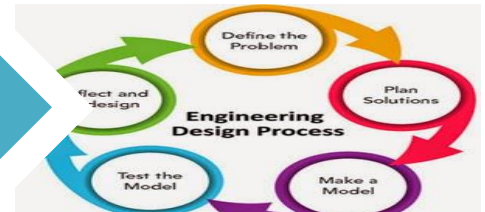


6. Place the lolly stick into the slit on the paper plate. Then slowly or quickly move the snowboarder up and down the slit in the paper plate.
7. If you want the snowboarder to lift off the snow, you can lift the lolly stick up higher in the slit. It will make it look like he is lifting into the air.



Activity and images from <https://jdaniel4smom.com/>

Engineering Challenge



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Build an Olympic Medal Podium

Adult support may be required!

The Olympic committee have a problem – the medal podium has broken, and the event winners have nothing to stand on to receive their awards.

Challenge: Can you help by designing and building a new podium?

Using materials you have at home, build a podium for your dolls, action man, lego brick people or teddies. Make sure it can support their weight.

You could recycle any boxes you have at home, use empty food containers or use lego or building blocks.

Test it: Does the podium support the 3 medal winners and is the middle position 1st place taller than 2nd place? 2nd place taller than 3rd place?

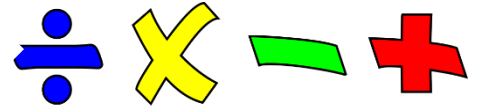
Improve it: Could you add any special features to support your dolls, so you don't have to hold them in place?



***Remember to ask a grown up for help if you need to use scissors.**

Image from www.clipart-library.com

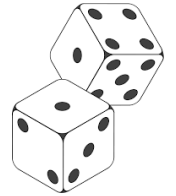
Maths & Numeracy Challenge



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Roll and Cover

1	2	3	4	5	6	7	8	9	10	11	12
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Today we are going to play a dice game to help us with our adding up.

You will need: 2 dice and something to cover up the numbers on the bobsleigh team below. *You could use counters or tokens if you have some or you could cut out some pieces of paper or card if you prefer.*



Instructions: Roll two dice and add the numbers together. Look for the answer and cover it up with your token or paper.

You can play this game by yourself or with someone at home. If they use a different colour than you then at the end you can see who has the most tokens.

If you play alone, you could ask a grown up to time you – can you get quicker the more you play?

Image from www.clipart-library.com

Literacy Challenge



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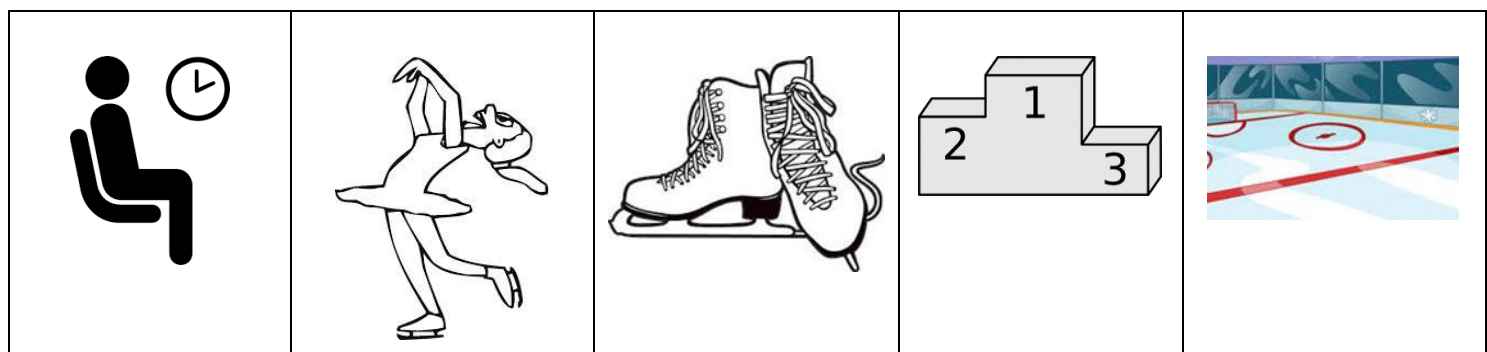
Winter Olympics Read and Sequence

Ask an adult to help you read the following information

Instructions: After reading the story below, cut out and stick down each picture in the correct order. Read out the story in full, pointing to each picture in turn. Can you write your own story and / or draw pictures for another Olympic event? **Ask an adult to help.**

It is the Winter Olympics! The ice skater is getting ready to compete. First, she puts on her skates then she steps out onto the ice rink. Next, she performs her routine. After that she waits patiently for her score. Finally, the winners receive their gold, silver, or bronze medals.

1	2	3	4	5
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Images from www.clipart-library.com and www.gograph.com/



Health & Wellbeing Challenge

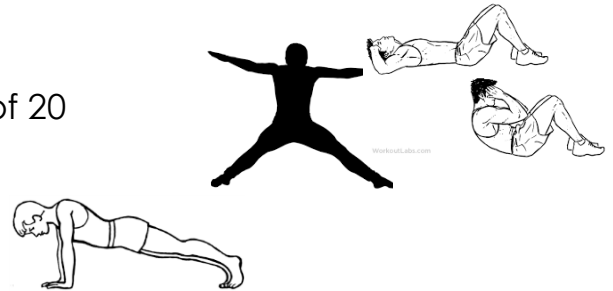
Winter Fitness Circuits

With the Winter Olympics taking place, it's time for us to do some exercise of our own. Today we are going to be doing some circuit training – this is where you do several short exercises in a certain order. We spend a bit of time on each exercise or do a certain number of tasks (repetitions) before moving on to the next exercise.

Exercise helps us stay active and that helps us to become and stay healthier. It can also be great fun and can make us feel good.

Here are today's exercises:

1. Running on the spot for a count of 20. (You can count yourself – 1 elephant, 2 elephant, 3 elephant...or if an adult can help, they could use a timer for 20 seconds)
2. 15 sit ups
3. Skip around the room (or garden) for a count of 20
4. 15 star jumps
5. Throw and catch a ball or soft toy 20 times
6. 15 press ups



When you complete the list, you can say you have done a complete circuit.

You can complete more than 1 circuit if you feel strong enough. You could also just work on an individual exercise if you prefer.

If you have a grown up helping, you could take it in turn to try the exercises or you could turn it into a game by using a dice and allocating each number to an exercise. Score a point for each successful exercise you complete. Keep your score and try to beat it next time or compete against your family member.



How do you feel after completing your exercises? If you feel warm and your heart is beating a bit faster, then this shows that you have worked hard – well done!

Images from www.clipart-library.com

Social Studies Challenge



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Eddie the Eagle

Ask a grown up to help you read the information below.

Michael Edwards was born on the 5th of December 1963. Michael (Eddie) loved sports and tried hard at everything he did.



When he was 13, Eddie decided to try a new sport – skiing. After joining his local dry ski slope, he quickly became a very good downhill skier. Eddie just missed out on being chosen to ski for Great Britain at the 1984 Winter Olympics.

Eddie was determined not to miss out on the next Olympic Games, so he moved to Lake Placid in America and switched to ski jumping instead of skiing as it was cheaper and there were no other British ski jumpers to compete against for a place on the Olympic team.

Eddie quickly ran out of money, so he worked doing various odd jobs to get by. He also slept in his car or in empty old buildings as he had no money for rent. He also often struggled to buy food.

In 1987, Eddie represented Great Britain in the World Championships, where he was ranked 55th in the world. This meant he qualified for the 1988 Winter Olympics.

The Winter Olympics made Eddie the Eagle a household name. He came last in the 70m and 90m ski jump events but became the British ski jumping record holder.

Eddie's story shows us that we should always try our best to achieve our dreams no matter how unlikely they seem. Nobody thought Eddie could ever be in the Olympic games and although he came last, he achieved his dream with very little help from anybody. Today many sportspeople receive funding and / or sponsorship to help them focus on their sport. Who knows how good Eddie could have been if he had been given some support.



Information and images of Eddie from [www.en.wikipedia.org](https://en.wikipedia.org/)
Clip art from www.clipart-library.com

Task: What would be your dream achievement? Chat about it with a grown up at home.

Click here to watch Eddie in action:

<https://www.youtube.com/watch?v=L1aWsFpg3To>

* Eddie wore very thick glasses because he was longsighted. (Struggle to see close up) When he did his ski jumps, his glasses fogged up so much he couldn't actually see!

Expressive Arts Challenge



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Design an Olympic Medal

Ask an adult to help you read the information below.

In the ancient Olympics, no medals were awarded. The first-place winner was given an olive wreath to wear on his head; second and third place winners received nothing.



Medals were first awarded in 1896, but only to winners. Gold, silver and bronze medals only started to be given out to 1st, 2nd and 3rd placed competitors from 1904.

The design on the medals changes with each Olympic games.

Your task: Create your own design for this year's Winter Olympic medals.

You can use the template provided if you wish but you don't have to.

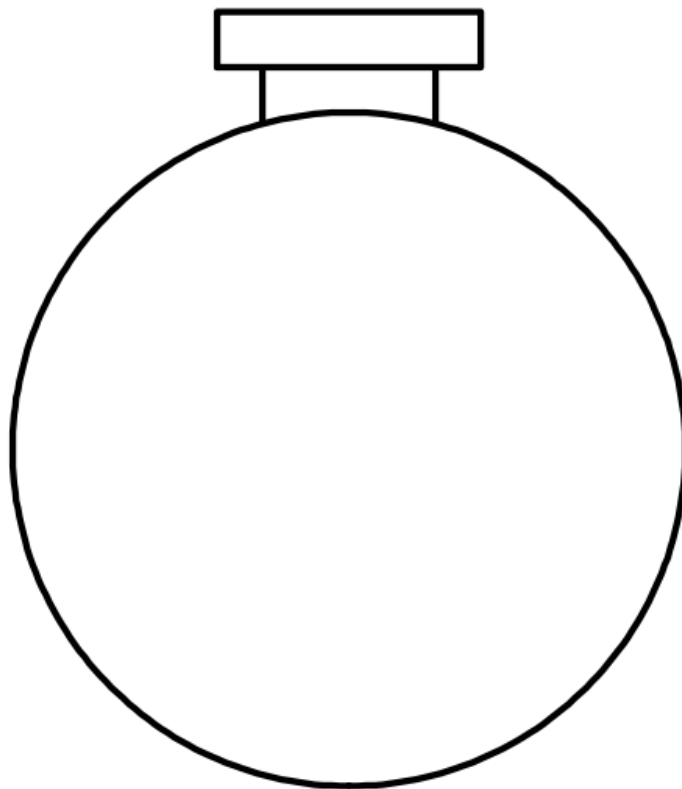
If you can, stick your design down onto some card.

If you have some ribbon at home, you could attach it and make your design into a proper medal!

Could you add anything to give your medal some texture, for example gluing on some card strips, thread or wool and then painting it gold?



Click here to watch how the medals were made for the 2014 Sochi (Russian) games:
<https://www.youtube.com/watch?v=fEIVLsHJAko>



Images from www.pinterest.co.uk

Information from www.en.wikipedia.org