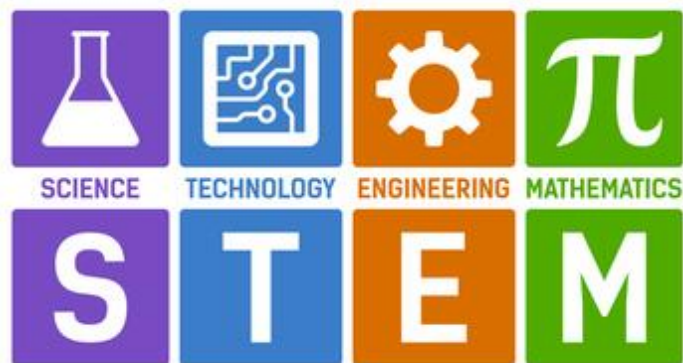




Mosshead Primary



Let's Focus on ... **STEM**



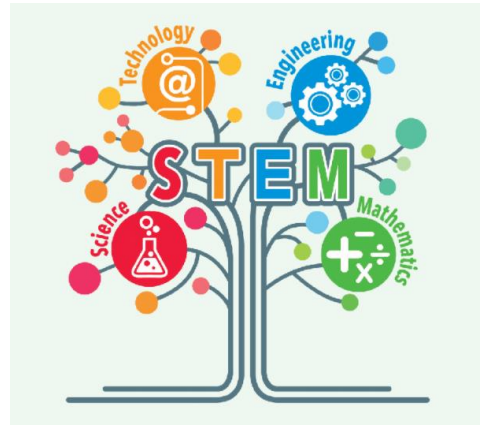
What and Why STEM?

STEM (Science, Technology, Engineering and Maths) allows us to make connections in the individual curricular subjects and enhance learning experiences in each.

The skills which come from STEM subjects are used in many different jobs from cooking to commerce; finance to farming; apps/game development to animal welfare; and brewing to building.

Whether or not young people end up working in a STEM job or workplace, they need the skills which STEM subjects give them. Employers want young people with STEM skills, with the right attitudes and aptitude, and who are flexible.

By providing STEM opportunities for our children at home and at school we hope to stimulate an interest and enthusiasm in the power and potential of STEM.



Everyone needs STEM skills

There are STEM jobs at all levels. STEM skills are useful in almost any job sector you can think of.

The top ten skills which employers want are:

- Complex problem solving
- Critical thinking
- Creativity
- People management
- Coordinating with others
- Emotional intelligence
- Judgement and decision making
- Service orientation
- Negotiating
- Flexibility

These are STEM skills.

Gender & STEM

Women are under-represented in Science, Technology, Engineering and Maths careers. The number of girls doing STEM subjects is increasing yearly, but there's still a long way to go. We support and encourage all of our pupils to participate equally in STEM, ensuring gender balance in all areas of the curriculum. At Mosshead STEM is for everyone!

Parents and carers have a role to play here too. When buying toys, games or books try to avoid buying stereotypical girl gifts and boy gifts.

What you can do

- Watch [Girl Toys v Boys Toys](#) to see how unconscious bias can contribute to gender inequality
- Take a look at [Let Toys Be Toys](#) and [Let Books Be Books](#) for useful information and resources
- Choose shops with the [Toymark](#) good practice award where the Toymark standard has been met



Activities to try at home

You are probably already doing lots of STEM without even realising. Simple things such as making paper aeroplanes, building with Lego, investigating food miles, going on a colour walk are all STEM!

Here are some STEM starters for you to try at home. There are lots more at www.stem.org.uk.

#ScienceFromHome

Nature Treasure Box

Use an empty egg box as a treasure box to collect things from the garden.

Can you collect lots of things of the same colour?
What about different smells?
How many different things can you collect?

Has spring sprung?

Look outside. Can you see how the trees and plants are changing?
What flowers can you see?
Draw a picture to show that spring is here.

<http://tiny.cc/50wxlz>

What can you hear?

Sit really quietly somewhere either in or outside. What can you hear? Can you hear any bird song? Can you identify the birds?

<https://www.british-birdsongs.uk/>

Oh Crumbs!

Take a biscuit and put it in a sealed bag. Now try and crush the biscuit into little pieces while it is still in the bag. Can you pour the biscuit into a bowl? What things can you usually pour out? Is the biscuit a solid or a liquid?

<https://www.stem.org.uk/rx32hm>

Floating and Sinking

What can you find in your house that sinks in the bath? Are there things that float?

What do you notice? Can you sort them.

<https://www.stem.org.uk/rxfdsu>

What did you have for dinner?

Draw a picture of a big plate and then draw what you had for dinner last night.

Find out what type of foods you ate for your meal e.g. dairy product, protein, carbohydrate
Can you find out why your body needs these types of food?

<https://www.stem.org.uk/rxz5r>

Water Cycle in a bag

Take a clean plastic sandwich bag. Carefully pour some water into it, so it is a third full. Seal it and tape it to a window that gets the sun. Watch what happens inside the bag when the sun is shining on the window. Can you explain this?

<https://www.stem.org.uk/rx32pu>

Parts of a flower

Ask your parents or carers if you can take a flower from the garden. Carefully dissect it. Can you name the different parts? Do you know what they do?

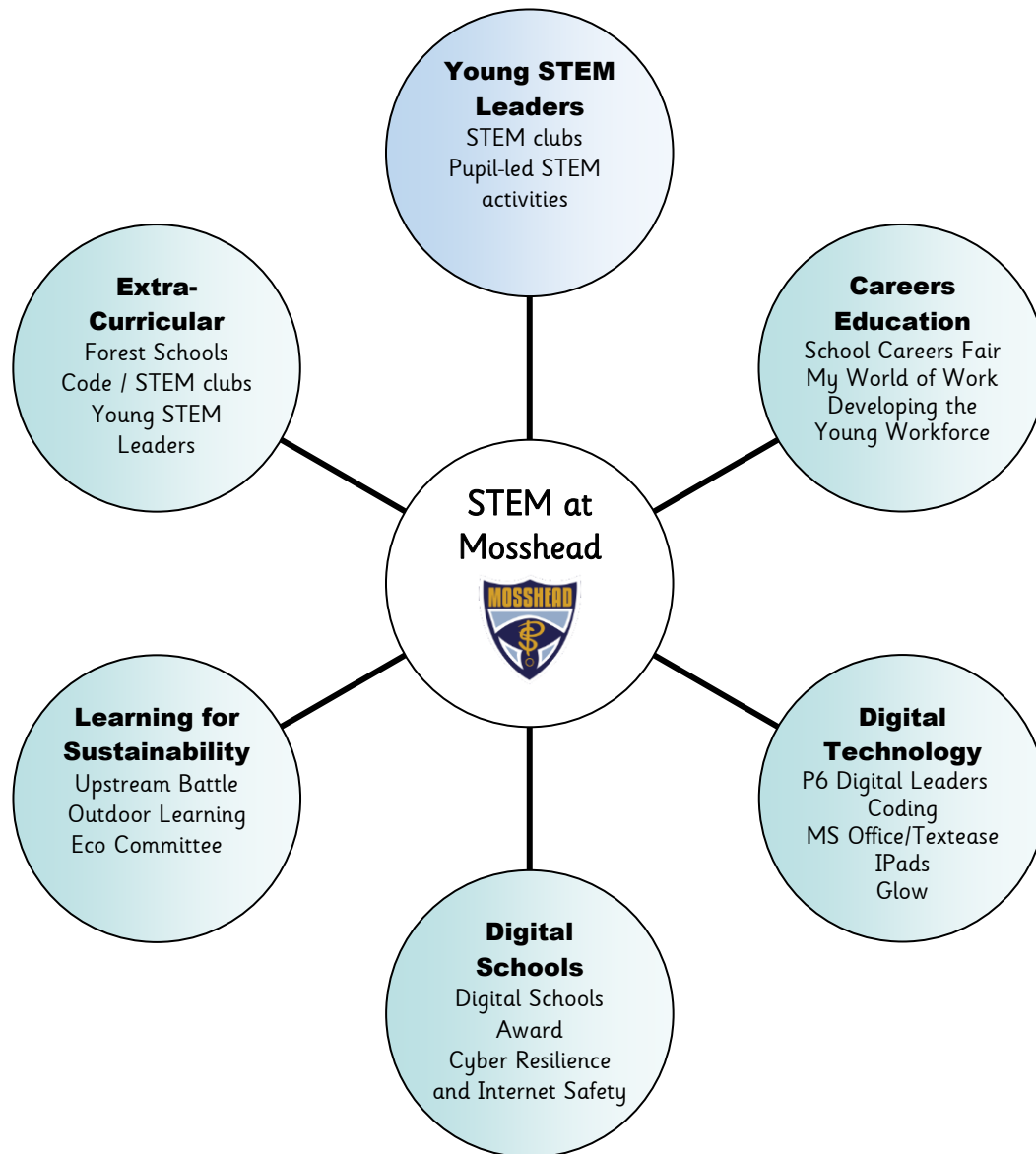
This booklet might help you.
<https://www.stem.org.uk/rx33gn>

How you can encourage your child

- Emphasise the message: STEM subjects and STEM-based jobs are for everyone: women and men
- Talk about STEM in a positive way, so you encourage your child to believe in themselves and enjoy STEM subjects
- Let them know that these subjects are good choices for them and show them how they fit with their interests
- Help them discover the connections between what they do in school and the things they care about. It depends on your child's age and interests, but it might include how their mobile phone works; how their clothes are made; what goes into designing a computer game; or understanding how chocolate gets into the packet. If they can see the point of, or value of, these subjects, they are more likely to stick with them and do well at them
- Talk with your child about how you use STEM skills in your everyday life or your job
- Take the time to find out about STEM jobs and careers and just how many different options there are
- Encourage your child to feel confident and capable with STEM subjects. You can give them all sorts of experiences and opportunities outside school: watching weather forecasts and environmental programmes together on TV; family outings to science festivals and museums, which are often free; cooking and baking, and talking about the different processes involved or where food has come from

STEM at Mosshead

There are many ways for children to learn STEM subjects and skills through Scotland's Curriculum for Excellence. At Mosshead we provide a wealth of opportunities for our children to engage in practical STEM investigations.



Useful Websites

<https://www.stem.org.uk/>
<https://www.glasgowsciencecentre.org/learn/gsc-home>
<https://education.gov.scot/parentzone/learning-in-scotland/curriculum-areas/stem>
<https://www.ashtongate.bristol.sch.uk/stem/>
<https://bollin-primary.com/school-life/curriculum/core-subjects/stem>
<https://www.audleyprimary.uk/school/stem>
<https://education.gov.scot/parentzone/Documents/IamaScientistMar16.pdf>
<https://www.lettoysbetoys.org.uk/>
<https://www.bbc.co.uk/teach/terrific-scientific>
<https://mykidscareer.com/>
<https://www.myworldofwork.co.uk/>