

STEPPING THROUGH – A trail around Middleton-in-Teesdale

So why STEM? STEM stands for Science, Technology, Engineering and Maths...

For some people this sounds exciting, others may think it's not for them. This trail will help you discover that STEM is everywhere and these subjects are closely linked to everything that we do and see in our day to day lives. They are not just subjects to learn and read about- they make our village and the world around us the way it is today.

Follow the trail and answer the clues given below at each point- some you may feel easy, some more tricky, but don't worry it's just for fun and we know you will love the challenge!

Follow the steps on the route map!

Remember to get involved with our competition at point 21 to be in with a chance of winning a fabulous prize bag (one photograph shared with us will be chosen at random as our winner)

Good luck!

	Clue	Answer
1.	<i>Geology (study of rocks and the Earth's physical structure)</i> This water feature commemorates a man in charge of a company that extracted galena.	
2.	<i>Technology (the application of scientific knowledge for practical purposes)</i> A parabolic antenna that helps entertain by receiving radio waves from an orbiting object.	
3.	<i>Agricultural science (science of farming)</i> Come here on 3 November for ewes and gimmer lambs.	
4.	<i>Technology (the application of scientific knowledge for practical purposes)</i> Reflective tubes sending flashes of light are controlled from here and keep us connected to the world.	
5.	<i>Geology (study of rocks and the Earth's physical structure)</i> In the distance, spot the outcrop of Whin Sill at the end of the railway line.	

6.	<i>Physics (the study of energy, forces, mechanics and waves)</i> High above the field, this converts alternating current from one voltage to another.	
7.	<i>Geology (study of rocks and the Earth's physical structure)</i> Tiny rock and mineral particles, good for castles.	
8.	<i>Hydrology (the scientific study of water, including its movement)</i> Find the big ruler that helps keep Middleton safe from flooding	
9.	<i>Botany (the scientific study of plants)</i> A triplet of deciduous giants.	
10.	<i>Technology (the application of scientific knowledge for practical purposes)</i> These convert sunlight into electricity through the action of photons (light particles) knocking electrons free from atoms.	
11.	<i>Physics (the study of energy, forces, mechanics and waves)</i> This works because it traps warm air created from a piece of ground heated by short light waves.	
12.	<i>Zoology (the scientific study of animals)</i> Find the invertebrate and avian homes	
13.	<i>Chemistry (the science of elements and compounds)</i> This is needed after a chemical reaction between fuel and oxygen.	
14.	<i>Engineering (use of scientific principles to build machines and structures)</i> Find the place where molten plastic is injected into moulds to make packaging.	
15.	<i>Anatomy (scientific study of the structure of the body)</i> The person who works here helps to keep us healthy through their excellent knowledge of bones, muscles and joints.	
16.	<i>Technology (the application of scientific knowledge for practical purposes)</i> These make our shopping trip easier by sliding open when triggered by infrared sensors.	

17.	<i>Physics (the study of energy, forces, mechanics and waves)</i> These pieces of equipment provide fun by converting potential (stored) energy to movement.	
18.	<i>Geometry (the mathematics of distance, shape, size and position)</i> Find the symbol that allows you to mark angles and draw circles.	
19.	<i>Technology (the application of scientific knowledge for practical purposes)</i> Find where you can withdraw funds because of information stored in tiny magnets.	
20.	<i>Engineering (use of scientific principles to build machines and structures)</i> These strong structures spread the load.	
21.	<i>Physics (the study of energy, forces, mechanics and waves)</i> Find where the movement of the Earth casts shadows that help tell the time.	



Would you like to be in the draw to win a prize bag?

Here's what to do...

- Take a selfie, or get someone to take your photo here at clue 21 and either
- upload it to the UTASS Facebook page post
 - send it to the UTASS Young Peoples WhatsApp group,
 - or email it to info@utass.org

22.	<i>Physics (the study of energy, forces, mechanics and waves)</i> These cables transmit electrical energy converted from vibrations.	
23.	<i>Physics (the study of energy, forces, mechanics and waves)</i> These tall structures work because hot air is less dense than cold air.	
24.	<i>Geometry (the mathematics of distance, shape, size and position)</i> Find the 1:5 gradient	

25.	<i>Technology (the application of scientific knowledge for practical purposes)</i> This regularly chiming object was first invented in China over 1000 years ago.	
26.	<i>Botany (the scientific study of plants)</i> Find the path that runs alongside parkland and finishes with a tunnel of Christmas vegetation.	
27.	<i>Physics (the study of energy, forces, mechanics and waves)</i> This object makes a noise after someone pulls on a rope, converting kinetic energy (energy from movement) to sound energy (a noise) when the clapper strikes.	
28.	<i>Botany (the scientific study of plants)</i> This type of prickly problem for a primate has been on the Earth unchanged for many millions of years. [Bonus – where else can you find one of these?]	
29.	<i>Nutrition (the study of food and nutrients)</i> Eating this will, on average, provide over 40 g of protein and enough energy to run over six miles	
30.	<i>Technology (the application of scientific knowledge for practical purposes)</i> This shocking object restores a normal heartbeat. [Bonus – where else can you find one of these?]	

We hope that you enjoyed this trail. We would love to see a picture of you out and about on the route so please do share via the UTASS Facebook page or send us an email at info@utass.org

Answers will be posted on our website at www.utass.org and in the UTASS window on Monday 2nd November 2020

To find out more about other UTASS activities including how you can take part in our virtual quiz night on Friday 20th November 2020 or our virtual museum get in touch with us at 01833 641010 or email info@utass.org





Treasure Hunt

STEM treasure hunt

