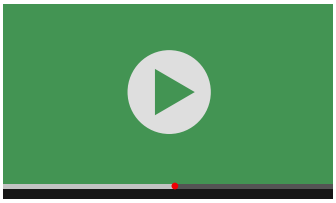
The Mystery Tube

You will need:

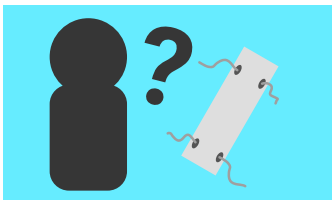
2 Toilet rolls	Pencil
String	Scissors
2 Small metal rings	Sticky Tape
8 paperclips	Tin Foil

Instructions:

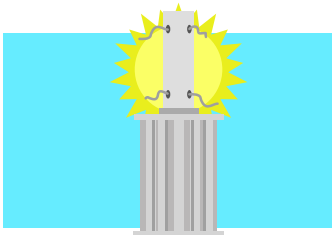


This activity needs two people.

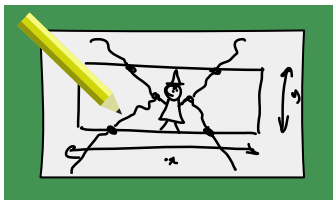
One person should watch the video on how to make a mystery tube and build it for their partner.



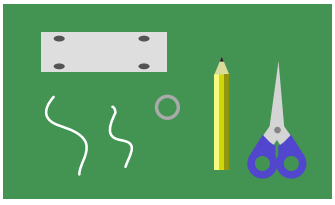
The other person is the investigator. They will try to work out how the strings are arranged inside, but no peeking but no peeking!



Imagine this is an ancient artefact, they should try to work it out without damaging it.



The invetigator should sketch what they think is inside.



Then they use a second set of equipment to recreate it.

Does it behave the same as the original?

Once your partner is confident that they know what is inside the tube, you face a problem. Should you tell them if they are correct? We'll leave that up to you to decide!

The Mystery Tube

Extension

Now it's the other person's turn to make a tube. Can they come up with a different way of arranging the strings inside the tube? If they can, they should build it and it's your job to figure out how they did it!

Science

This activity follows a simplified version of the scientific method. In order to investigate something scientifically, we begin with an observation (how the strings move) and a guess as to how it might work (our hypothesis). We can then test our hypothesis against the real-world and if it matches reality, our hypothesis might be correct!

It is important to make the point that in science, we never really know if we are correct. We can only use the results of our experiments to get the most likely answer. In astronomy for example, we can't go to a star and look inside it. Instead, we come up with an idea of how we think a star works, then test this idea against evidence collected by telescopes from the real thing.