MANCHESTER 1824
The University of Manchester
Jodrell Bank Observatory

Jodrell Bank Discovery Centre

INVESTIGATE: CRATERS ON THE MOON!

Why are there craters on the Moon?
Why are they different sizes?
Let's do an experiment to find out!

SCIENCE TOPIC: EARTH AND SPACE
SUITABLE AGE: 7 – 11 YEARS

1 YOU WILL NEED…

- A large bowl, tray or dish and a sieve
- Different coloured powders – you could use flour and cocoa
- Several objects that can be used as meteorites, such as large and small marbles, golf balls, rocks, bouncy balls. Use your imagination!
- Ruler, pencil and paper
- Pictures of craters on the Moon

2 SET UP YOUR EXPERIMENT!

- Cover the area you are going to use with a bin bag, newspaper, paper towels. Anything to help you tidy up later. This could get messy!
- Cover the bottom of your container with the lighter coloured powder, a few cm thick.
- Using the sieve (if you have one) sprinkle a layer of the darker powder over the top.

3 PLANNING YOUR INVESTIGATION!

- You are going to drop your "meteorites" into the powder to create craters.
- What can you control and what can you change in you experiment? Think about the objects you are dropping. How will you drop them? What height should you drop them from?
- What do expect your results to look like? This is your **prediction**.

4 INVESTIGATE!

- Conduct an experiment by changing one thing (called a **variable**) to see how it affects the size of the crater. Your variable could be… meteorite size, meteorite weight, drop height.
- **Measure** the size of the craters you have made.
- Write down your **results**.
- You could also video your experiment. What does it look like in slow motion?!

5 WHAT HAVE YOU FOUND OUT?

- Have a think about what you saw in your experiment and have another look at pictures of craters on the Moon.
- What do your results tell you?
- How do you think craters on the Moon formed?
- What is your **conclusion**?

DID YOU KNOW?

Meteorites are pieces of asteroid or rocky planet or moon.
Scientists experiment with models — like you did — to find out what type of crater a meteorite might leave behind. They also have evidence from craters on Earth.

Share your science with us!

#WatchTheSkies
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