METEORITE MAYHEM

Create your own meteorites and watch what happens when they hit Earth

EDINBURGH SCIENCE

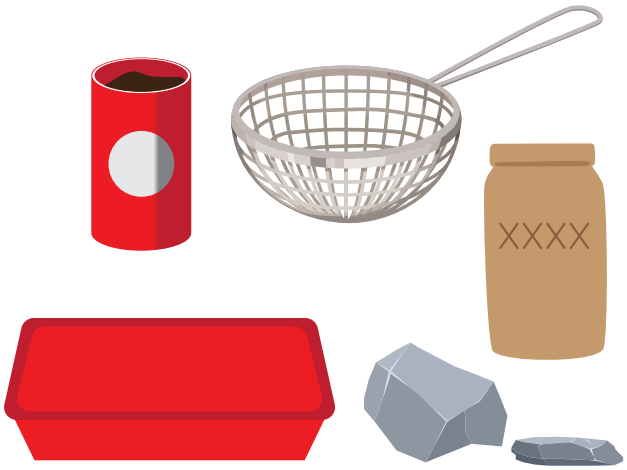
A CONTAINER OF ANY SIZE

FLOUR

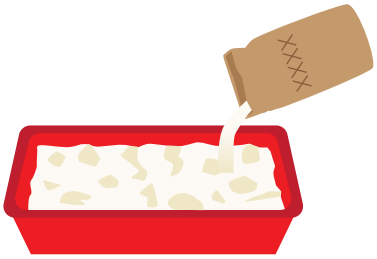
COCOA POWDER

SIEVE

SMALL ROCKS

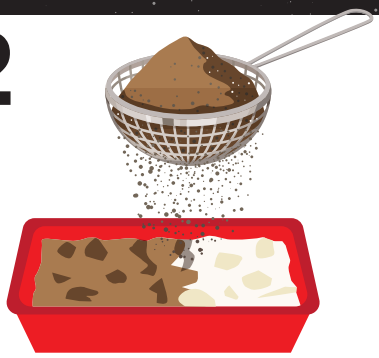


1



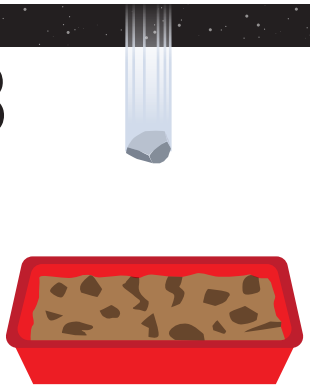
Cover the bottom of the container with 5–10 centimetres of flour

2



Using a sieve, sprinkle a thin layer of cocoa powder evenly over the surface of the flour

3



Hold the rock about one metre above the container and let it drop

4

If you want to watch the impact in slow motion, record it with a camera

What is happening?

When a meteorite hits the surface of a planet or moon, it creates a hole in the crust called a crater. The rock around the crater has been thrown out by the impact, just like the flour around your crater. This rock is called ejecta, as it has been 'ejected' from the crust. In the experiment, the cocoa powder is the upper later of rock and the flour is the layer below it.

Why not... try dropping different objects from different heights and angles to see the different craters you can make.

Meteors, Meteorites and Meteroids

Meteoroids are space rocks, or objects that travel through space. They can be any size – from microscopic to hundreds of metres long. A meteoroid becomes a meteor when it enters the Earth's atmosphere. They travel at speeds of up to 15 kilometres per second and burn brightly. You can sometimes see them as shooting stars. If any of the meteor survives the fall to Earth, it is called a meteorite. Meteorites are some of the oldest things ever discovered – up to 4.5 billion years old.