Flour Craters

Materials

- Large baking tray
- Plain flour to cover the tray to about 2cm deep
- Powdered drinking chocolate (e.g. Milo, Nesquik or cocoa)
- Fine strainer or sieve
- Small and large marbles or small balls

Instructions

NOTE: This is a messy activity and is best done outside, away from any wind.

1. Spread the plain flour evenly over the baking tray to about 2cm deep.
2. Use the strainer to sprinkle a fine layer of powdered chocolate over the flour.
3. Invite the children to take turns to select a marble or ball, choose how high to hold it above the tray, and drop it straight down onto the tray.
4. Ask the children to describe the craters made by the marbles and balls of different sizes held from different heights. Compare the results to images of Moon craters, either in books or downloaded from the NASA website (https://moon.nasa.gov).
5. During free play in a sandpit, provide the children with balls of different shapes and sizes and encourage them to create moon craters by dropping the balls on the sand.

HINT: Recycle the flour and powdered chocolate by using it to make play dough.

What happens?

Craters form when asteroids hit the surface of a moon or planet. Asteroids are made of rock and the shape of a crater depends on the size and speed of the asteroid that created it. The Earth has been hit by a lot of asteroids, but most of the craters have been worn away by wind, rain and oceans. Unlike Earth, Mercury has a lot of visible craters because it doesn't have an atmosphere or oceans to wear them away.

Image credit: NASA

Health and safety considerations

Marbles and small balls can be choking hazards for children under the age of 3.

