










Mars Mysteries

Keywords	Level	Time	Core Skills	Type of Activity
				
Forces, Gravity Falling Objects Speed	Senior Primary 3 rd - 6 th	1.5 h or 2.5 h	Fair testing	Investigation Science experiments

	Summary Activity Description
	<p>Mars is the best studied of all the planets. Students will find out what we know about Mars through satellite images and surface exploration by rovers and landers. Sand trays will be used to model various processes that have affected the surface of Mars, with experiments about cratering. The 2.5h version of this workshop includes Martian water channels images and experiments.</p> <p>Students will apply their understanding to design their own experiments on the theme of craters on Mars.</p>
	Learning Objectives and Curricular Links
	<p>Science: Materials: Materials and Change Science: Energy and Forces: Forces</p>
	Materials
	<p>Satellite Images of Earth and Mars Cratering: Sand trays, flour, impactors, rulers Water flow: Sand trays, funnels, water, rulers</p>
	Background Information / Skills required
	<p>This activity is based on: DPSM: The Moon, Craters and Meteorites Skills: measurement of distance Fair testing, inquiry skills</p>
	Summary Activity Description



1. Identify features visible on a satellite image of Ireland.
2. Compare satellite images of Mars and Earth
3. Design and carry out an investigation to explore factors that affect crater size
4. Explore water channel formation, compare to satellite images

Additional Information / Follow on Activities



Background Information for Teachers: Google Earth shows the surface of Mars, also available at [this link](#). ESA's [Mars Express](#) has been orbiting Mars since 2004. [Images from Mars Express](#) are available; language used in text is adult reading level.

Pre Activity: Online resources: [MarsQuest](#), [ESA Kids](#)

Post Activity:

[Explore Mars Inside and Out](#) from Lunar and Planetary Institute (LPI)

Areology: [The Study of Mars](#)

ESERO: [Can you Live on Mars?](#), [Why is Mars Red?](#), [How Can You Recognise Life?](#)

LPI: [Life on Mars](#)

SpaceMaths [Martian themed Mathematical Problems](#)

Simulated cratering: [Down2Earth](#)

ESA Teacher Resource PR04a: [Tell-tale Signs of a Shooting Star](#)

