

# 16.1 METEORITE INVESTIGATION

Around the room are 8 stations with rocks that have either come from space, or been produced as a result of an impact between a meteorite and the Earth. It is your job to study these rocks, perform tests, and calculate densities (of some of the rocks) in order to identify which rock is which.

To calculate the densities, you will need to estimate the volume of the objects.

At each station there is a sheet that will help you with this by reminding you of how to calculate the volumes of certain shapes.

## KEY EQUATION:

$$\text{Density} = \frac{\text{Volume}}{\text{Mass}}$$

Explain the approach you took to calculating the volumes (what shapes did you model the objects as being made up of?).

You can then weigh the object to allow you to calculate its density.

**Take your measurements in cm and mass in g to give you a density of grams/cm<sup>3</sup>.**

Station	Is it magnetic?	Density/ additional task	Written Observation: Does it have a fusion crust? Does it show bubbles? Can you see metal? Is it glass-like or coloured?
1		Mass (g): Volume (cm <sup>3</sup> ): Density:	
2	Not needed	Mass (g): Volume (cm <sup>3</sup> ): Density:	
3		Mass (g): Volume (cm <sup>3</sup> ): Density:	
4		Mass (g): Volume (cm <sup>3</sup> ): Density:	
5	Not needed	Mass (g): Volume (cm <sup>3</sup> ): Density:	
6		Mass (g): Volume (cm <sup>3</sup> ): Density:	
7		Not needed	
8	Not needed	Not needed	