

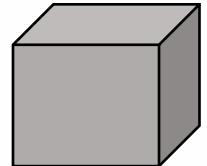
1. Read the question and the student's answer carefully.
2. Use the mark scheme to award the student a number of marks and annotate their answer with suggestions to improve.

**Stretch:** Rewrite the answer to show how it should be done!

**Question:**

A student wants to compare the density of two objects.

Describe the method(s) that the student could use to measure the density of each object.



(6)

**Student answer:**

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$

The student should measure the mass of each using a balance ~~then~~ then measure the volume using a measuring cylinder.

**Marks awarded=** \_\_\_\_\_

## Mark scheme:

Level 0 (0 marks)	No relevant content
Level 1 (1-2 marks)	<b>Basic</b> descriptions of the measurements that should be taken for <b>one method</b> but no mention of how to use them, <b>or</b> descriptions of the quantities needed to calculate density but no information on how to measure them.
Level 2 (3-4 marks)	<b>Clear</b> description of <b>one method</b> to measure density <b>or</b> basic descriptions of both methods
Level 3 (5-6 marks)	<b>Clear</b> descriptions of <b>both methods</b> that would allow the density of each to be measured

For both

- Measure mass using a balance
- Calculate density using  $\rho = \frac{m}{V}$

Cube (regularly shaped solid)

- Measure length of sides using a ruler
- Calculate volume using  $l^3$

Screw (irregularly shaped solid)

- Use a displacement can/Eureka can
- Measure the volume of water displaced
- Volume of water displaced = volume of screw