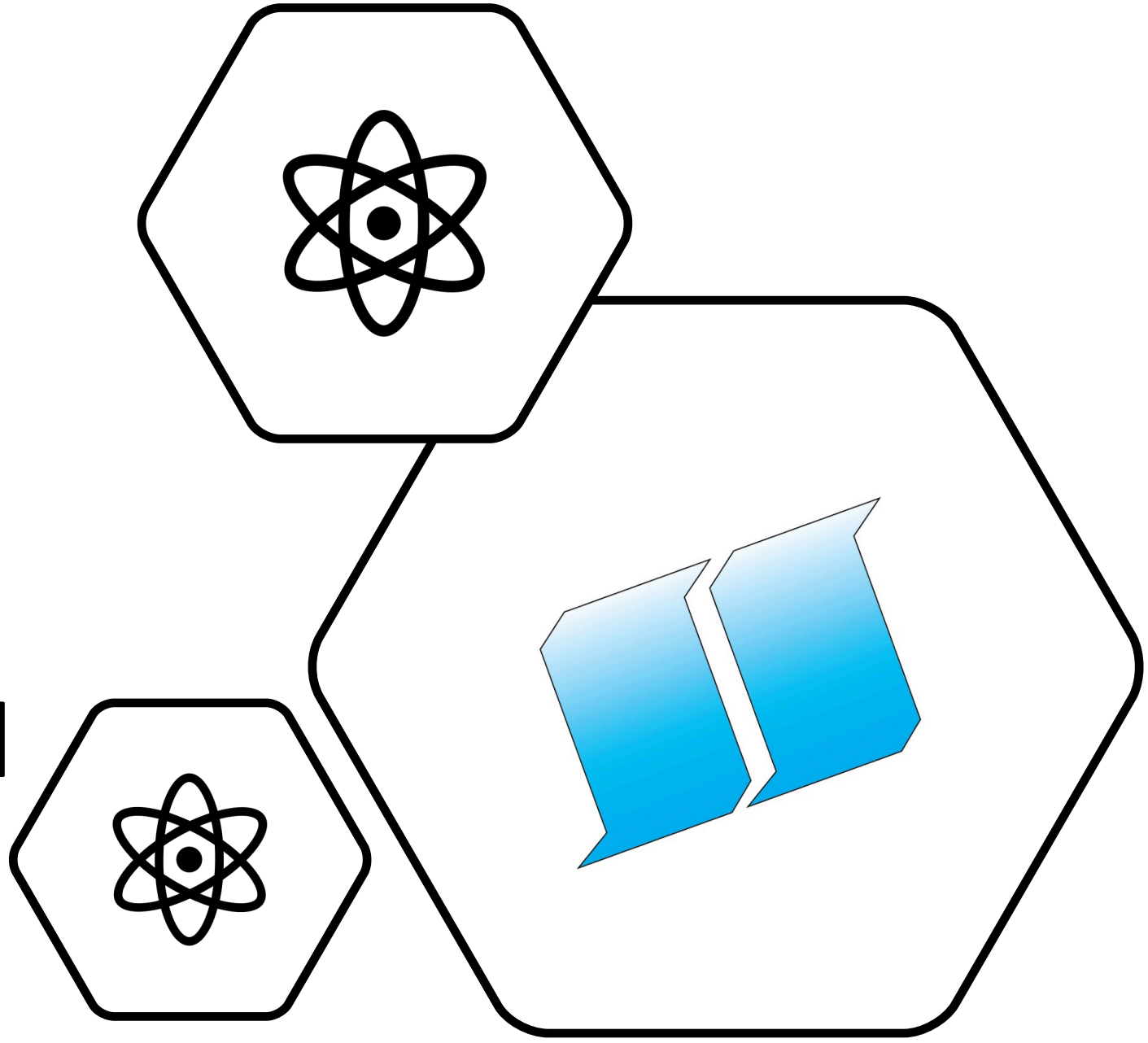
Paper 1 (combined)

Density

Activity 1

regular shaped objects



Paper 1

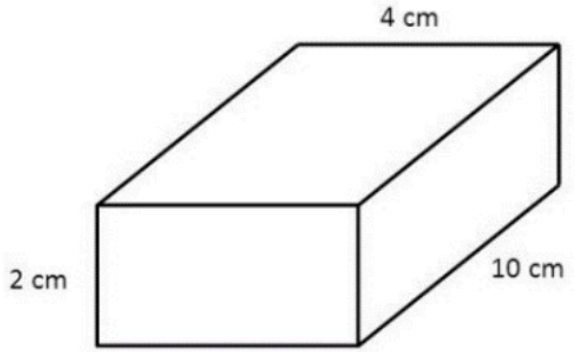
Density

Activity 1 A regularly shaped object

- 30 cm ruler in mm
- digital balance
- a selection of regularly shaped objects

1. Measure the length, width and height of the object using the ruler
2. Calculate the volume of the object using - volume = length x width x height
3. Measure the mass of the object using the balance
4. Calculate the density using - density = mass / volume
5. Repeat for the other regular objects

Regular shaped object	Length in cm	Width in cm	Height in cm	Volume in cm^3	Mass in g	Density in g/cm^3



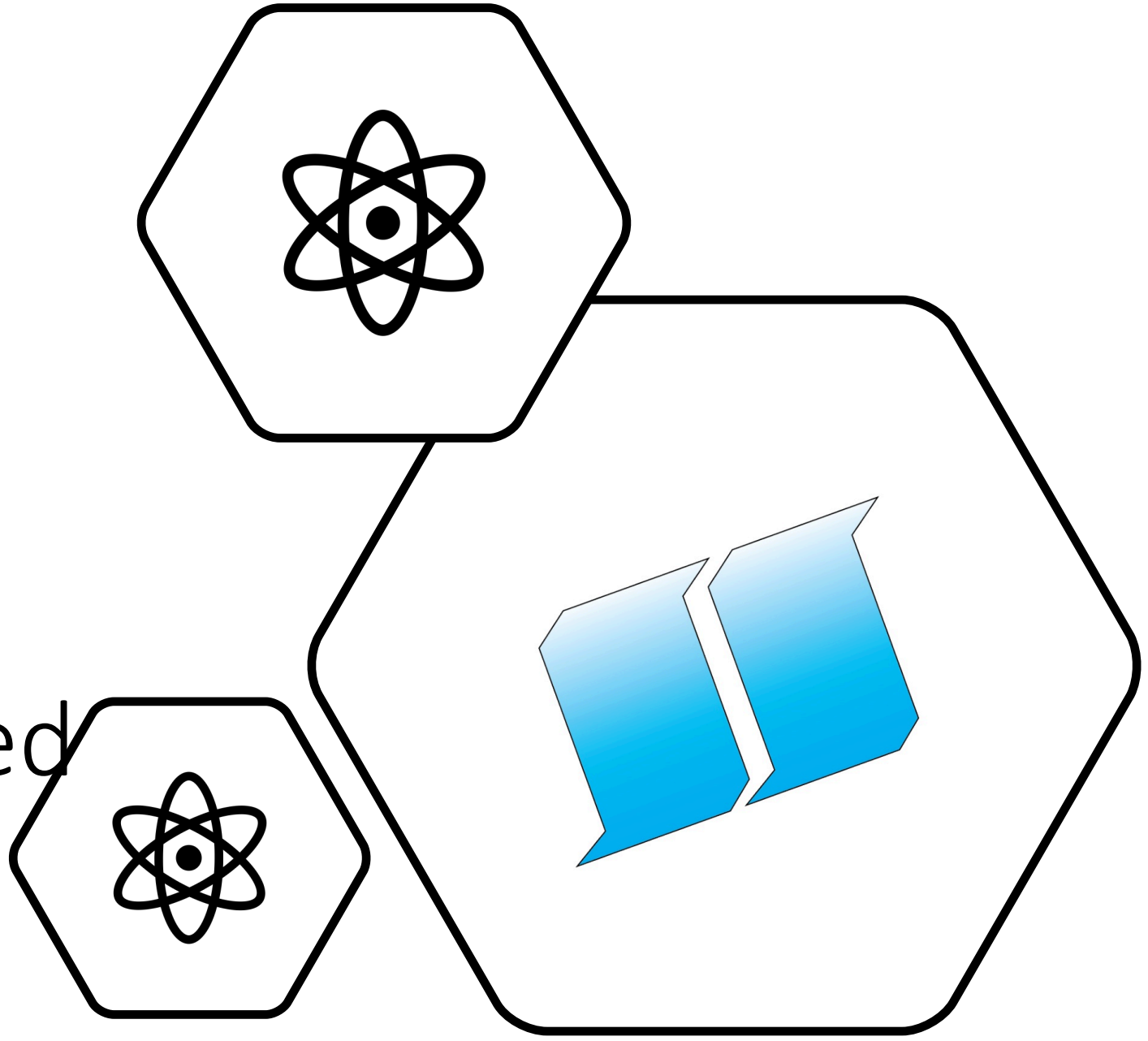
Volume of this rectangular solid =
4 cm x 2 cm x 10 cm = 80 cm^3

Paper 1 (combined)

Density

Activity 2

irregular shaped objects

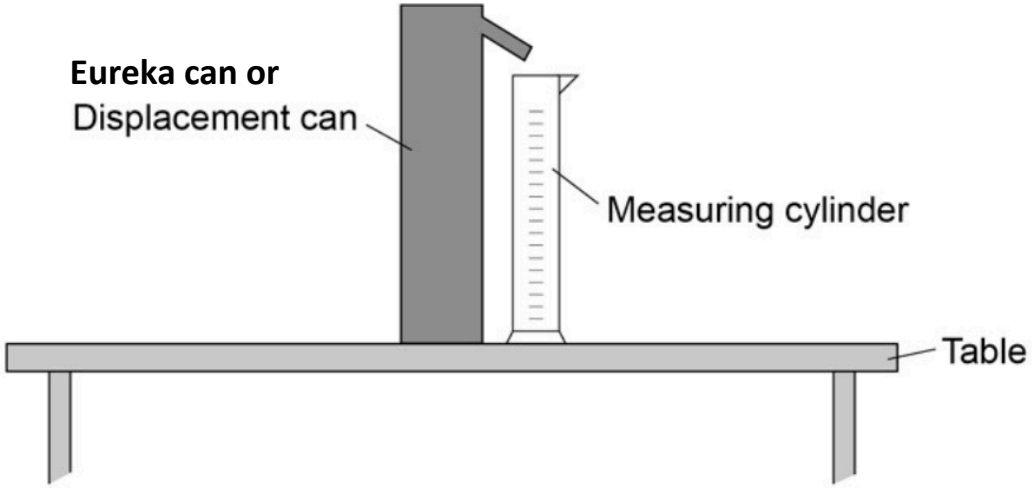


Paper 1

Density

Activity 2 An irregularly shaped object

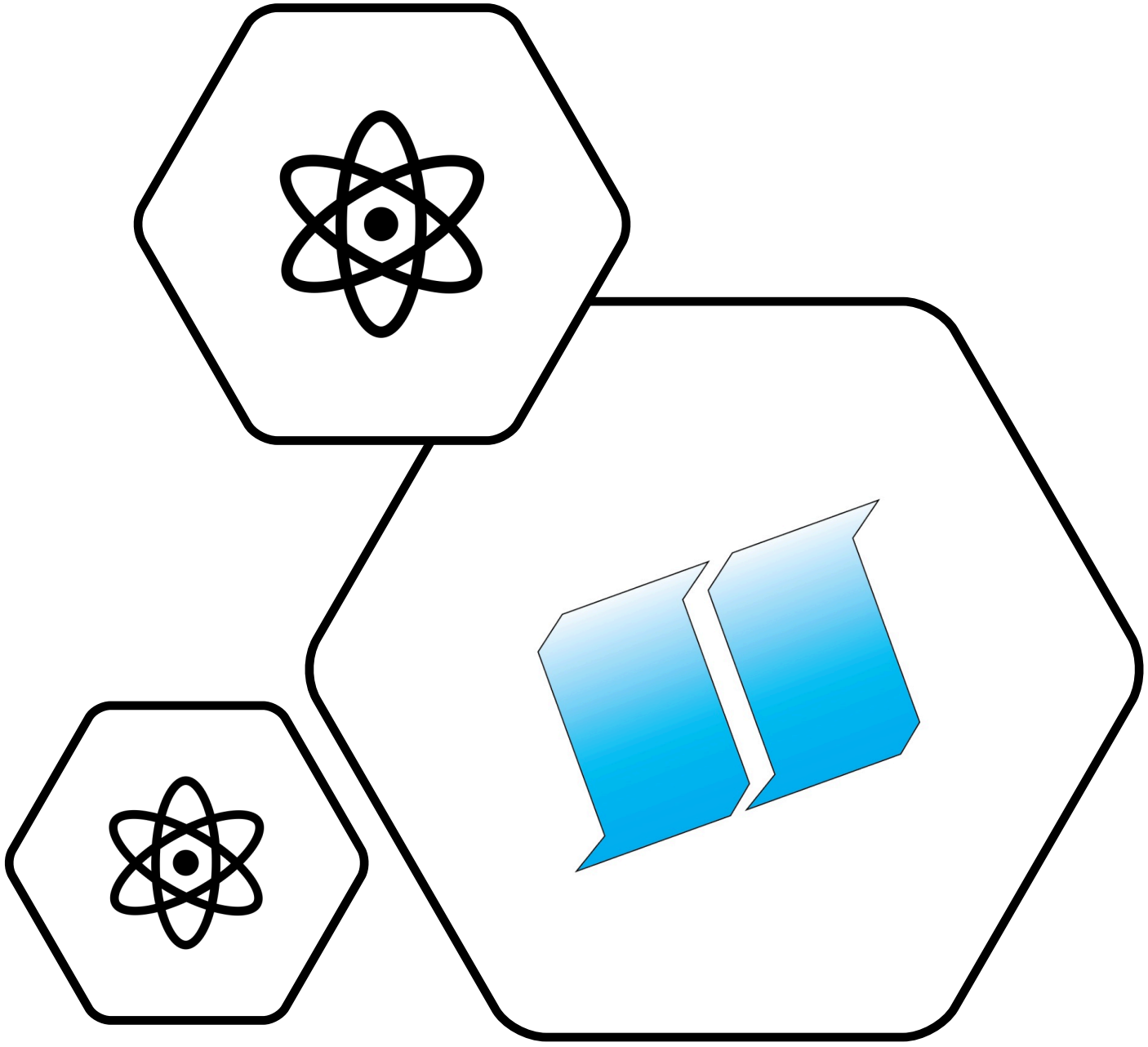
- a digital balance
- a displacement (eureka) can
- measuring cylinder
- a beaker of water and an extra empty beaker
- a selection of irregularly shaped objects



1. Fill eureka can with water and allow excess water to drain
2. Place empty measuring cylinder under spout of can
3. Submerge object in can and collect displaced water
4. Record the volume of the displace water which is the volume of the object
5. Measure the mass of the object using the balance
6. Calculate the density using - density = mass / volume
7. Repeat for the other irregular objects

Paper 1 (combined)

Density
Activity 3
Liquid



Paper 1

Density

Activity 3 A liquid

Measure the volume of the liquid using a measuring cylinder and the mass by pouring it into a beaker on an electronic balance that has been zeroed. The density is calculated using density = mass / volume