Worksheet 1 — How Big Is Our Bin?

Investigation 1 — Student Worksheet

Names: _____ **Date:** _____

Step 1 — Measure

Measure your class bin in centimetres. Measure to the nearest centimetre. If the bin tapers, measure length and width at the top opening.

Measurement	Our value (cm)	Where we measured
Length		
Width		
Height		

If your bin is round, measure the distance across the top instead of length and width, and ask your teacher for the circle hint card.

Step 2 — Calculate the area of the base

Area = Length × Width

Area = _____ × _____ = _____ cm^2

Step 3 — Calculate the volume

Volume = Length × Width × Height

Volume = _____ × _____ × _____ = _____ cm^3

Step 4 — Convert to litres

1,000 cm^3 = 1 litre. Volume ÷ 1,000 = _____ L

Our bin holds about _____ litres.

Step 5 — Compare with the smart bin

The WCE dashboard says our bin's height is _____ cm.

Our measured height was _____ cm. The difference is _____ cm.

If your bin has a label with its capacity in litres: the label says _____ L and we calculated _____ L.

Step 6 — Explain your thinking

Write two reasons why your measurements and the smart bin's numbers might be different.

Step 7 — Reflect

Name one reason a measurement in real life is never perfect.