J6. Volume of irregular solid

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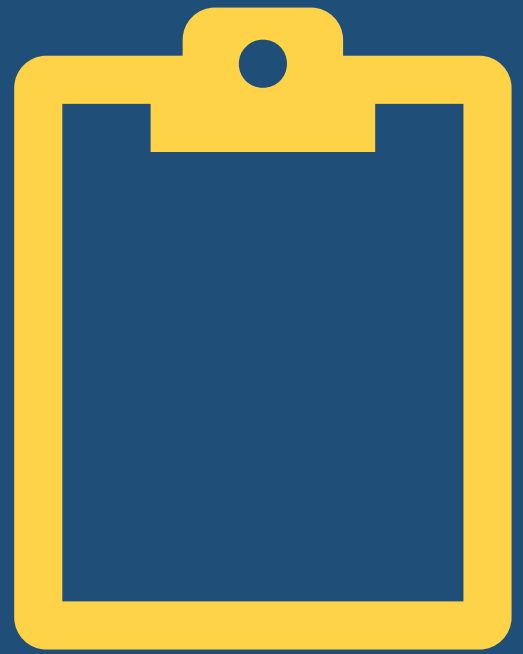
Outline of Teaching Experience Sharing (volume of irregular solid)

1. Teaching strategy
2. Activities to be organized
3. Reflection



Teaching Strategy

Volume of regular solid

Volume of irregular solid

Students' previous knowledge:

- Volume of cube = L×L×L
- Volume of cuboid= L×W×H

Through the displacement method, students are required to measure and calculate the volume of the water displaced caused by the volume irregular solid

Activities to be organized

The essence of the measurement activity (displacement method)	Resources
• All rules must be stated before the start • 4-5 students in a group • A group leader is assigned • Students are required to bring a palm-sized object to measure.	Irregular solids
• Roles of group members: 1. Observe and mark the height of the water level with coloured scotch tape around the measurement vessel horizontally 2. Safeguard the object to submerge in water (use plastic stir stick if necessary) 3. Bring water from bucket to measurement vessel 4. Record the data on their individual worksheet 5. Make an oral presentation	Coloured scotch tape, plastic stir stick, Displacement vessel with spout, Litre volume measurement cube, beaker, container with handle, bucket

Reflection

1. More engagement

2. Formality vs Creativity

3. Feedback promptly

4. Chaos

Chap. 16 Volumes of Irregular solids

Teaching objective:

Students can find the volume of irregular solids by the displacement method

Volume of a cuboid

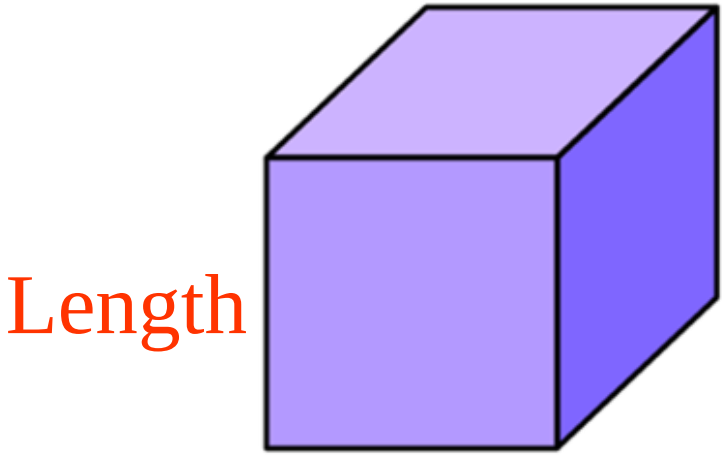
Height

Width

Length

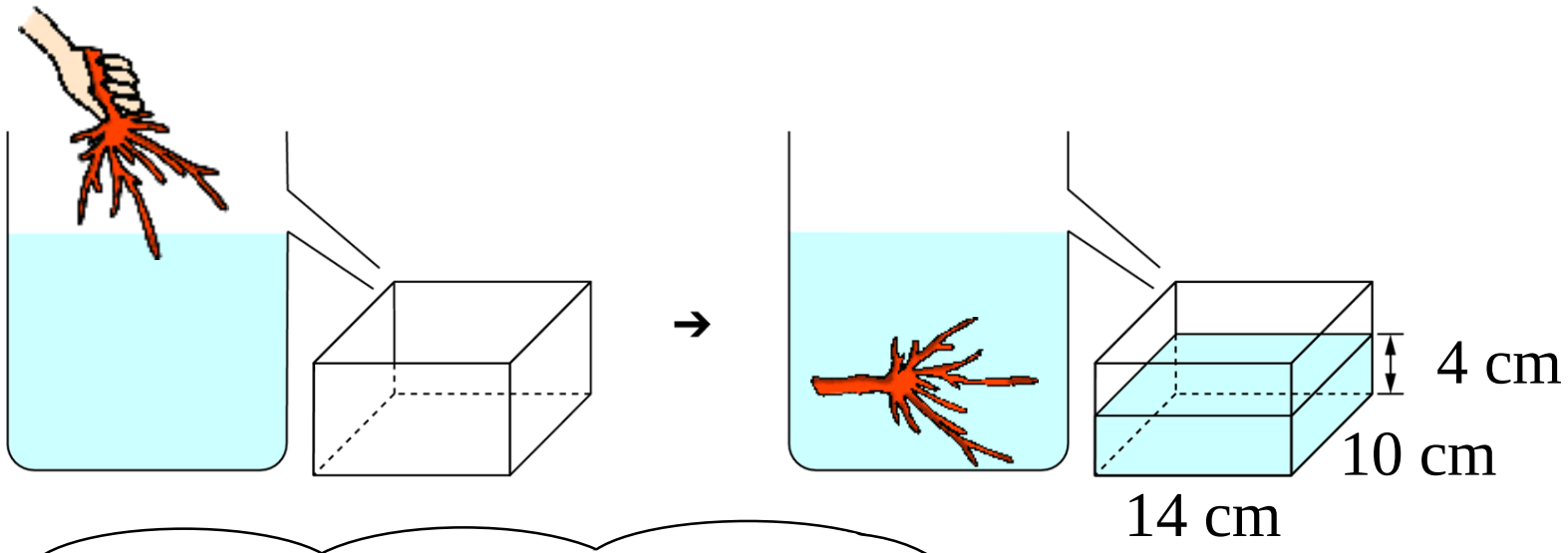
Volume of a cuboid = Length × Width × Height

Volume of a cube

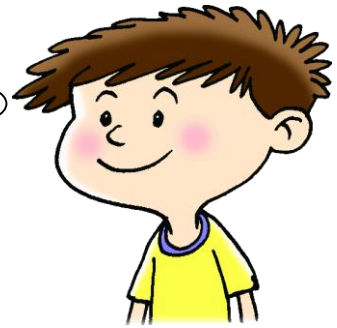


Volume of a cube = Length × Length × Length

Find the volume by displacement method



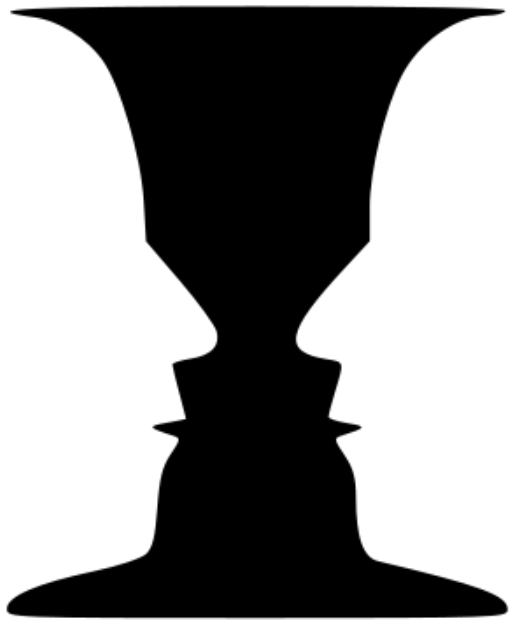
The volume of the water displaced equals the volume of the piece of coral.



$14 \times 10 \times 4 = 560$

The volume of the piece of coral is 560 cm^3.

What do you see?



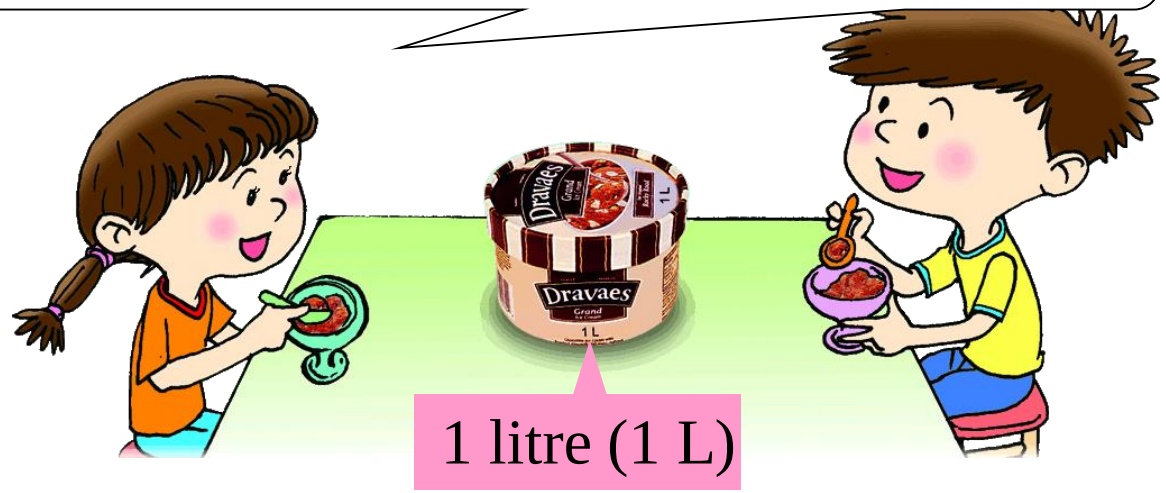
Volume

The space that an object takes up is called its volume.

Capacity

The amount that a container can hold is called its capacity..

The capacity of this ice-cream box is 1 L.

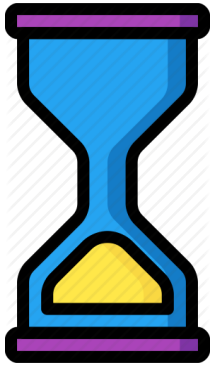


Capacity

A 1-litre container can hold objects that have a total volume of 1000 cm^3.

1 litre (L) = 1000 cubic centimetres (cm^3)

Group Activity



- Find the volume of objects by the displacement method
- Fastest & Accurate