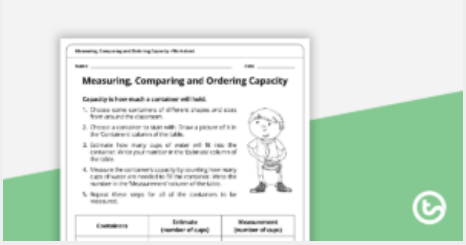
Lesson 3: Measuring, Comparing and Ordering Capacities

Numeracy > Units of Measurement > Volume and Capacity

Disclaimer: This Starter Sheet should be regarded as a guide only. Teachers should make adjustments in accordance with the individual learning needs of their students.

DURATION
60 min

REQUIRED RESOURCES



TEACHING RESOURCE

Measuring, Comparing and Ordering Capacity Worksheet

A worksheet that explores the concept of capacity using informal units of measurement.

CURRICULUM CODES

Australian Curriculum

ACMMG019 Measure and compare the lengths and capacities of pairs of objects using uniform informal units.

ACMMG037 Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units.

NSW Curriculum

MAe-9MG Length - describes and compares lengths and distances using everyday language.

MA1-9MG Length - measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres.

MA1-10MG Area - measures, records, compares and estimates areas using uniform informal units.

INTRODUCTION

A 60 minute lesson in which students will estimate and measure the capacity of containers using informal units.

LESSON PLAN

PREPARATION

It is recommended that the activity in this lesson be completed in an outdoor space, to prevent water spillage.

Tuning In

- Access students' prior knowledge and learning by asking what capacity is and how is it measured.
- Watch the *Measuring Capacity* video on YouTube. Afterwards, revise and discuss the task that was being performed in the video and how it was completed.

Teacher Instruction

- Provide the students with a copy of the *Measuring, Comparing and Ordering Capacity Worksheet*. Show the class the containers they will be measuring and model how to measure their capacities. Reiterate to the students that they will need to:
    - estimate the capacity before measuring
    - fill the measuring cup all the way to the top
    - keep adding water until the container is completely full.
- Discuss what to do if a whole cup of liquid will not fit into the container e.g. stop measuring if the container is going to overflow with the next cup. Demonstrate how the water from the container is to be returned to the bucket before completing the next measurement.

Guided/Independent Learning

- Place the students into small groups. Monitor and support the students as they estimate and measure the capacity of the containers. Allow each group to measure one container at a time, then record their results on the worksheet. When all of the containers have been measured, encourage the students to complete the reflection questions on the worksheet.

Wrapping Up

- Gather the class together and invite the students to share their findings. Discuss any discrepancies and ask the students to consider why some results might have been different between groups.

DIFFERENTIATION

Supporting Students

MA1-11MG Volume and Capacity - measures, records, compares and estimates volumes and capacities using uniform informal units.

MA1-12MG Mass - measures, records, compares and estimates the masses of objects using uniform informal units.

Victorian Curriculum

VCMMG095 Measure and compare the lengths, masses and capacities of pairs of objects using uniform informal units.

VCMMG115 Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units.

- For less confident students, reduce the number of containers to be measured.

Extending Students

MONITORING STUDENT UNDERSTANDING

- [ ] Used strategic whole class or individual questioning
- [ ] Observed student participation during learning activities
- [ ] Recorded student progress on a checklist
- [ ] Annotated student work samples
- [ ] Collected and reviewed student work samples
- [ ] Facilitated whole class or peer feedback sessions
- [ ] Encouraged student self-reflection
- [ ] Administered formal assessment tasks