

Lesson 1: Introduction to Capacity

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

Which Objects Have Capacity Worksheet

A worksheet to use when exploring the concept of capacity.

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 be introduced to and explore the concept of capacity.

LESSON PLAN

Tuning In

- Play a game of 'Fill the Container'. Break the class into groups and provide each group with a container (be sure to vary the sizes). Instruct the students to fill their container with an informal unit chosen by the teacher e.g. small cubes, marbles, counters. This could be turned into a race to see which group can fill their container in the fastest time.
- Afterwards, allow the groups to share how many of the chosen informal units they could fit into their containers. Initiate a discussion regarding whether or not the game was fair. Lead the students to the idea that the different containers could hold different amounts of the chosen units, depending on their size.

Teacher Instruction

- Choose one of the containers to examine in greater detail. Invite the class to share ideas about the different ways that it can be measured e.g. length, width, height, mass, volume. Draw attention to the space inside the container and inform the students that this can also be measured. Introduce the term 'capacity' and its definition (how much a container will hold). Look at the different capacities of the containers used in the group activity and discuss how many of the informal units could fit inside the spaces.
- Show the class an object that does not have capacity e.g. a book. Discuss how you can tell that the object cannot hold anything inside (that is, there is no space that can be filled within the object). Invite the students to find objects from around the classroom that have capacity, as well as objects that do not have capacity.

Guided/Independent Learning

- Provide the students with a copy of the [Which Objects Have Capacity Worksheet](#). Monitor and support the students as they work through the activities.
- Once the students have finished, review the answers to the worksheet. Discuss any discrepancies in the students' responses.

Wrapping Up

- Revise the definition of capacity. Ensure that the students understand how to tell if an object has capacity.

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.

- ☑ Invite less confident students to complete the worksheet in a small group with adult support.

Extending Students

- ☑ Encourage fast finishers to create an ordered list of capacities using objects from the classroom.

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