



Maths

Measurement



Need a coherently planned sequence of lessons to complement this resource?

Lesson Breakdown

Below is our suggestion for the most coherent and progressive sequence to teach this area of PlanIt Maths steps on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in which the resources are presented.

Understanding Length and Height (1): Height Comparison
This lesson teaches children to compare the heights of familiar objects. It height such as tall, short, taller, shorter, tallest and shortest. The lesson also includes presentation, activity sheets and our fantastic Diving in Mastery Cards this is a great resource for your classroom.

NC Statement: Compare, describe and solve practical problems for lengths and heights.
Lesson Aim: To compare the heights of objects.

Measuring Length and Height (1): Measure Height Using Non-Standard Units
Allow children to explore measuring the height of objects using non-standard units. The presentation demonstrates how to accurately measure objects and gives children the opportunity to be encouraged to record the height of various objects within their classroom. This pack also includes our Diving into Mastery Cards that give opportunities for children to demonstrate their understanding.

NC Statement: Measure and begin to record lengths and heights.
Lesson Aim: To measure height using non-standard units.

Understanding Length and Height (2): Length Comparisons
This lesson teaches children to compare the length of various toys. They are encouraged to use the vocabulary of longer, longest, shorter, shortest. The lesson includes presentation, activity sheets and our fantastic Diving in Mastery cards that give opportunities for children to demonstrate their understanding.

NC Statement: Compare, describe and solve practical problems for lengths and heights.
Lesson Aim: To compare the length of objects.

Introduction

This unit will introduce children to the concept of measurement in different areas, such as length and height, capacity, weight, money and time. Children learn the vocabulary they will need to compare and describe measurement and develop their reasoning skills through solving practical problems. The children explore both non-standard and standard units of measure and apply their skills of measuring and recording in a wide range of real-life contexts. They also learn to sequence events in chronological order, use language related to dates and begin to tell the time on an analogue clock.

Assessment Statements

By the end of this unit:

Children working towards the expected level will be able to:

- describe and compare lengths, heights, capacities, weights and times using simple vocabulary;
- measure length, heights, capacities, weights and using non-standard units;
- recognise some coins and notes;
- put two or three simple events in chronological order;
- recognise and use the names of the days of the week and know some months of the year;
- tell the time to the hour on an analogue clock and draw the hands;
- reason about measurements to solve simple practical problems.

Children working at the expected level will be able to:

- describe and compare lengths, heights, capacities and times using mathematical vocabulary;
- measure length, heights, capacities, weights and times using standard and non-standard units;
- know the value of coins and notes;
- sequence familiar events in chronological order;
- order the days of the week and months of the year;
- tell the time to the hour and half past the hour on an analogue clock;
- draw the hands on an analogue clock face to the hour and half past the hour;
- understand fully-numbered scales, such as measuring jugs;
- reason about measurements to solve practical problems.

Measurement
Maths | Year 1 | Steps to Progression Overview

The aim of this overview is to support teachers using PlanIt Maths to show the most coherent and progressive sequence to teach each area of maths. We also want to fully support teachers who use the White Rose Maths scheme of learning to make full use of the resources available within PlanIt Maths. Wherever possible, lesson packs have been matched to each of the small steps on the White Rose Maths scheme of learning.

Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)			Number: Addition and Subtraction (within 10)			Geometry: Shape			Number: Place Value (within 20)		Consolidation
Spring		Number: Addition and Subtraction (within 20)			Number: Place Value (within 50) (Multiples of 2, 5 and 10 to be included)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Number: Multiplication and Division (Multiples of 2, 5 and 10 to be included)			Number: Fractions	Geometry: Position and Direction		Number: Place Value (within 100)		Measurement: Money		Time	Consolidation

Measuring Capacity



Aim

- To measure capacity.

Success Criteria

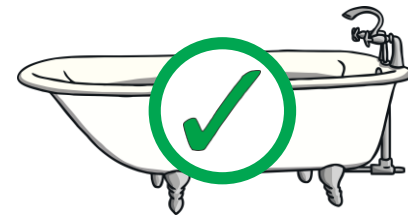
- I can use non-standard units to measure capacity.
- I can describe measurements of capacity.
- I can reason about capacity.

Remember It



If each container was filled, which would hold **more**?

Click the
container to
reveal the
answer.



The bath would hold **more** than the bottle.

Remember It



If each container was filled, which would hold **less**?

Click the container to reveal the answer.



The pot would hold **less** than the watering can.

Remember It



If each container was filled, which would hold the **most**?

Click the container to reveal the answer.



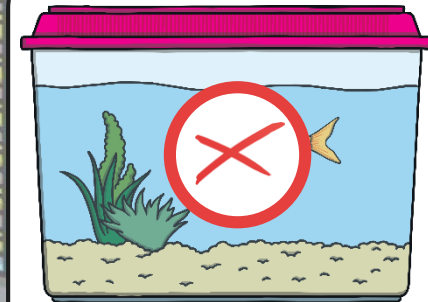
The bucket would hold the **most**.

Remember It



If each container was filled, which would hold the **least**?

Click the container to reveal the answer.



The glass would hold the **least**.

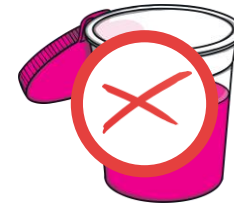
Remember It



Which container has the **greatest** capacity?

If each container was filled, which would hold the **most**?

Click the container to reveal the answer.



The jar has the **greatest** capacity. The jar would hold the **most**.

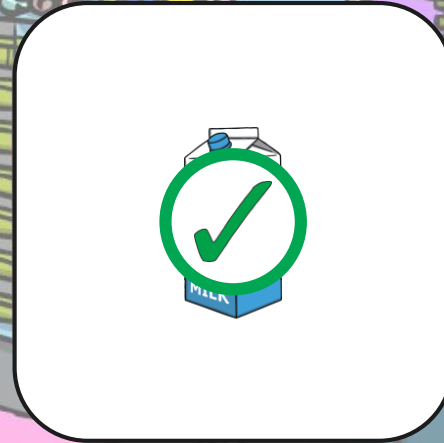
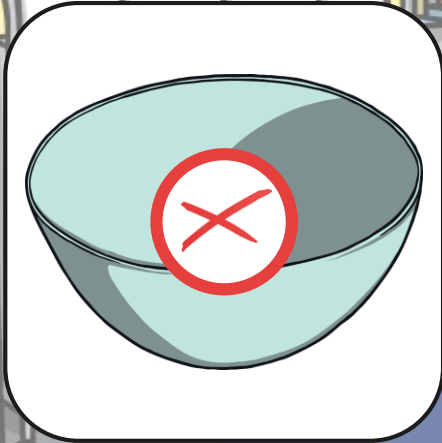
Remember It



Which container has the **smallest** capacity?

If each container was filled, which would hold the **least**?

Click the container to reveal the answer.



The carton has the **smallest** capacity. The carton would hold the **least**.

Remember It



What can you tell me about the capacity of the paddling pool and the cup?

Use these words to help you.

more

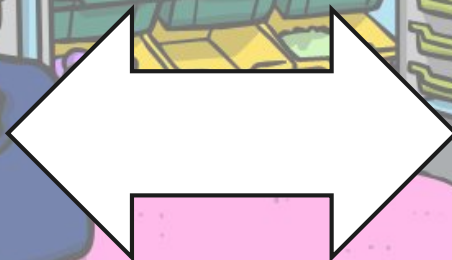
less

most

least

greatest

smallest



Measuring Capacity



Capacity is a measure of how much something can hold.

When something holds as much as it can, we say it is **at full capacity**.



Measuring Capacity



How can we measure capacity?

Here's one idea.

Pick a container to measure its capacity.

Pick an object to use as a unit.

Make sure the units are the same size.

Count the number of units used to fill the container.

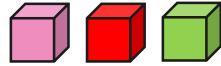
The jar has a capacity of 6 beads.

Measuring Capacity



Can you find the capacity of the tube?

Pick a unit.



Count the number of cubes used to fill the tube.

Is the tube full yet?

Keep counting until it is at **full capacity**.

The tube has a capacity of **10** cubes.

Measuring Capacity



Can you find the capacity of the tank?

Pick a unit.

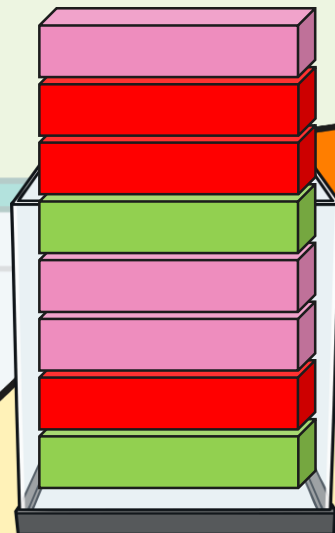


Count the number of blocks used to fill the tank.

Is this correct?

You have to stop when you have reached **full capacity**.

The tank has a capacity of **5** blocks.

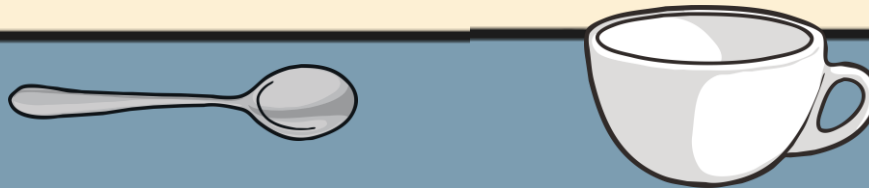


Measuring Capacity



What can we do to find out how much a container can hold?

Pick a smaller container to use as a unit to measure with.
Fill it, then pour it into the container.
Count the number of units used to fill the container.



Measuring Capacity



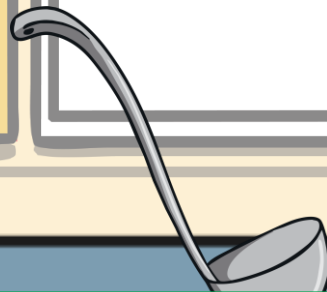
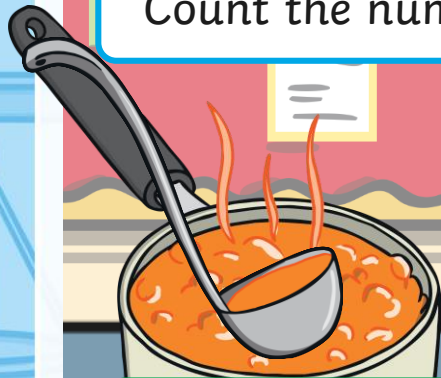
What is the capacity of the bowl? How much liquid can it hold?

Pick a smaller container to use as a unit to measure with.



Fill it, then pour it into the container.

Count the number of units used to fill the container.



The bowl has a capacity of **4** ladles.

Rules



Measuring Capacity



Can you find the capacity of the jug?

Pick a smaller container to use as a unit to measure with.



Fill the glass, then pour it into the jug.

Is this ready? Why?

Make sure that the units that you use are full.



The jug has a capacity of **4** glasses.

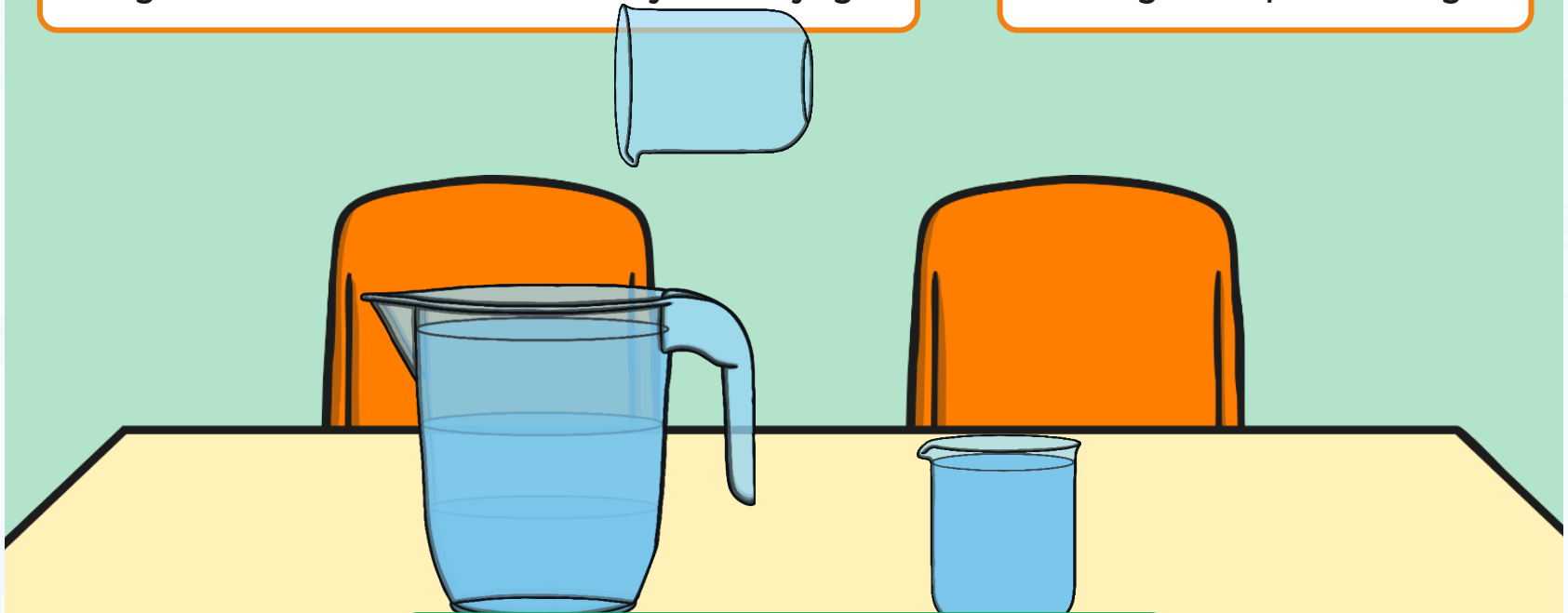
Measure It



How many beakers of water do you think this jug will hold?

Do you think one beaker will fill the jug?

Can you explain why?



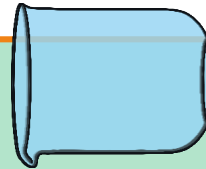
This jug holds **3** beakers of water.

Measure It



How many beakers of water do you think this bucket will hold?

Do you think it will hold more or less beakers of water than the jug?



Can you explain why?



This bucket holds **5** beakers of water.

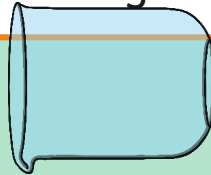
Measure It



How many beakers of water do you think this glass will hold?

Do you think 5 beakers will fill the glass?

Can you explain why?



This glass holds **2** beakers of water.


Measuring Capacity





Measuring Capacity

To measure capacity.

You will need water or sand, cups, spoons and different containers to fill.

 How many cupfuls will each container hold?



Container	bowl	bucket			
					
Number of Cupfuls					



Which container holds the **most** cupfuls?

The holds the most of cupfuls.

Which container holds the **fewest** cupfuls?

The holds the fewest of cupfuls.

 How many spoonfuls will each container hold? 

Container	bowl	bucket			
					
Number of Spoonfuls					

Which container holds the **most** spoonfuls?

The holds the most spoonfuls.

Which container holds the **fewest** spoonfuls?


The holds the fewest spoonfuls.

Measuring Capacity


To measure capacity.

You will need water or sand, a cup and a spoon to use as units to measure different containers to fill.

How many cupfuls fill each container?

	bucket	Which container holds the most cupfuls? _____
		Which container holds the fewest cupfuls? _____

How many spoonfuls fill each container?

	bucket	Which container holds the most spoonfuls? _____
		Which container holds the fewest spoonfuls? _____

Measuring Capacity

To measure capacity.

You will need water or sand, a cup and a spoon to use as units to measure different containers to fill.

How many cupfuls fill each container?

		<input type="text"/>			

How many spoonfuls fill each container?

		<input type="text"/>			


Diving into Mastery

Dive in by completing your own activity!



Measuring Capacity

This bowl has a capacity of spoonfuls.



Choose a container.
How many spoonfuls does it hold?
The has a capacity of spoonfuls.

Choose something new to measure the capacity of your container with. Did you use the same number as the spoonfuls?

The spoon holds the .

Would a spoon or bowl be better to measure the capacity of a cup?

Would a spoon or cup be better to measure the capacity of a bucket?

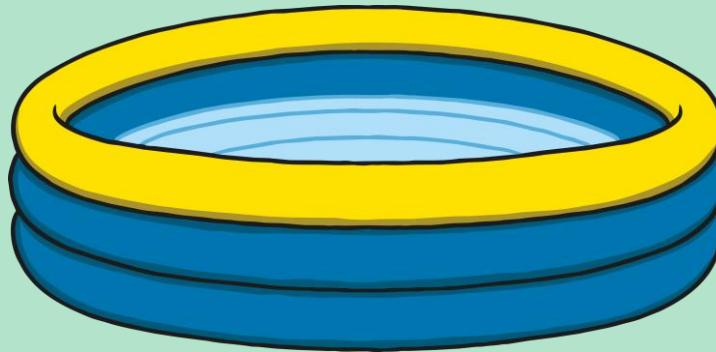
Check It



Is this correct? How do you know?



I used 7 buckets of water to fill the paddling pool.



The paddling pool
You need to keep

What do they need to remember?

ed full capacity.

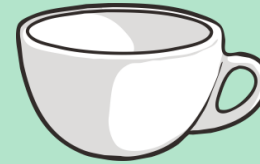
Check It



Can they both be correct? How do you know?

The teapot will fill 5 cups.

The teapot will fill 8 cups.



**Yes. They both used different sized cups.
The teapot holds the same amount of liquid but it
fills more of the smaller cups than the larger cups.**

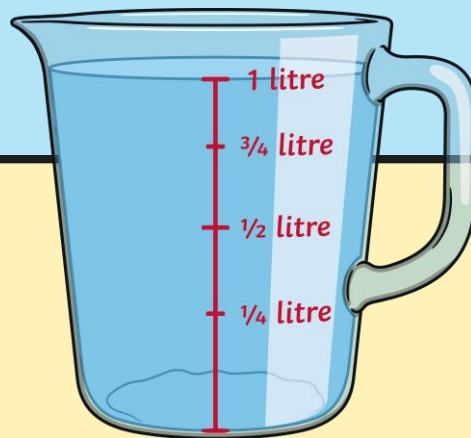
Litres



This bottle holds a litre of liquid.

A litre is a unit that we use to measure liquid.

A litre is always the same amount of liquid, no matter what container it is in.



Litres



Do these containers hold more than 1 litre, less than a litre or about the same as a litre?

more than 1 litre

less than 1 litre

the same as 1 litre

Click on the pictures to reveal their place.

Aim



- To measure capacity.

Success Criteria

- I can use non-standard units to measure capacity.
- I can describe measurements of capacity.
- I can reason about capacity.

