



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 Year 1 Maths. Click on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in this pack.

Understanding Length and Height (1): Height Comparison
 This lesson teaches children to compare the heights of familiar objects, such as tall, short, taller, shorter, tallest and shortest. The lesson includes a presentation, activity sheets and our favourite Drawing in Memory Cards that we use to consolidate learning.

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)
 This lesson teaches children to measure the height of objects using non-standard units. The lesson includes a presentation, activity sheets and our favourite Drawing in Memory Cards that we use to consolidate learning.

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 Comparison
 This lesson teaches children to compare the length of various objects. They are taught to use the words 'longer', 'shorter', 'taller', 'shorter and shorter'. The lesson includes a presentation, activity sheets and our favourite Drawing in Memory Cards that we use to consolidate learning.

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 measurements 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, an 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 lengths, 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, weights and times using mathematical vocabulary;
- measure lengths, heights, capacities, weights and times using a standard and non-standard unit;
- know the value of coins and notes;
- sequence four or five 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 mass or money to 100;
- reason about measurements to solve practical problems.

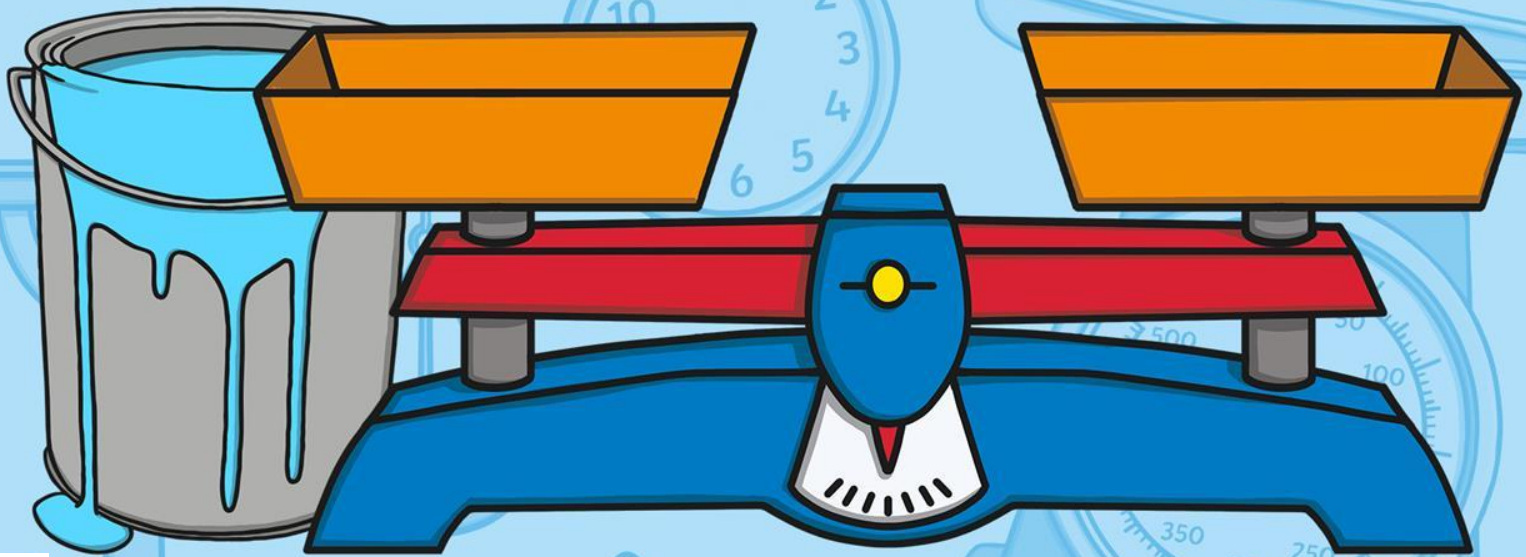
Measurement
 Year 1 (1) Core and Progression Overview

The aim of this overview is to support teachers using First 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 First Maths, whenever possible. Lesson packs have been matched to each of the annual 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		
Summer	Number: Multiplication and Division (Multiples of 2, 5 and 10 to be included)			Number: Fractions		Geometry: Capacity and Volume		Number: Place Value (within 100)		Measurement: Money		Time
											Consolidation	

Mass Problem Solving



Aim

- To solve mass problems.

Success Criteria

- I can solve problems by measuring mass.
- I can solve problems by comparing mass.
- I can use accurate vocabulary to explain my reasoning.

Remember It

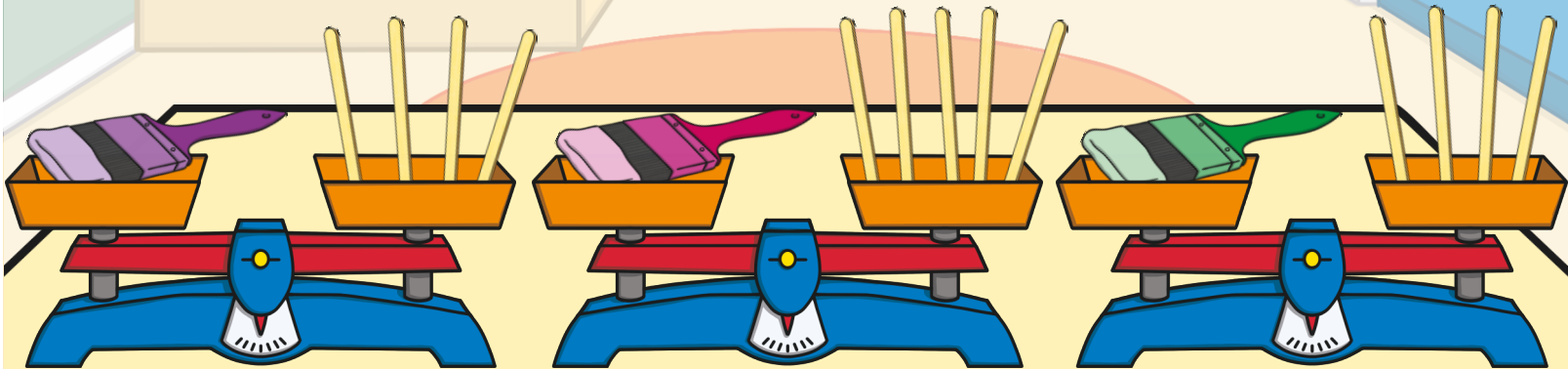


What do you know about the mass of the purple paintbrush? What is its mass? Can you compare it to the mass of the other paintbrushes?

The purple brush has a mass of 4 sticks.

The purple brush is lighter than the pink brush.

The purple brush and the green brush have an equal mass.





Can you find this toy?

Remember It

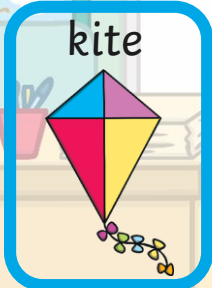


It's lighter than the skipping rope but heavier than the yo-yo.

yo-yo



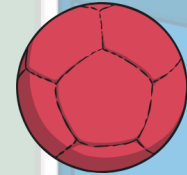
kite



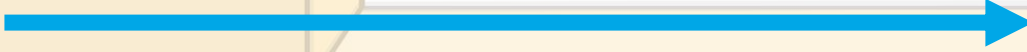
skipping rope



ball



lightest



heaviest





Pick a toy.
Tell your talk partner clues about its mass.
Can they work out which toy it is?

Useful Words
mass heavier lighter heaviest lightest

Paint Problem



Oh no! I spilt paint on a number. How can I work out what it is?

Paint Pot	Number of Cubes
blue 	6
pink 	4
green 	

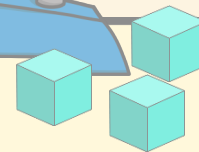
It has to be **5** because 5 cubes is **heavier** than 4 cubes and **lighter** than 6 cubes.



lightest








heaviest



Mass Mix Up

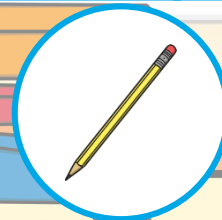
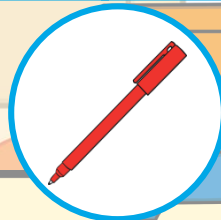


We measured the mass of these objects with counters. Then we ordered them from the heaviest to the lightest.

Object					
Number of counters	7	3	6	4	9



heaviest



lightest

It goes here because **6** counters is **lighter** than 7 counters and **heavier** than 4 counters. Do you know?

Solve the Clues



I have measured the mass of different fruits using cubes.

The apple is:

- lighter than the pineapple
- heavier than the peach

6 or 7
cubes



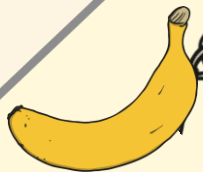
The pear is:

- lighter than the peach
- heavier than the banana

3 or 4
cubes



2 cubes



5 cubes



8 cubes







lightest

heaviest

Match the Mass

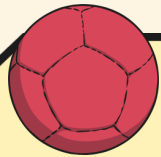


Which 2 beanbags together have the same mass as the ball?

Beanbag				
Number of Blocks	7	4	6	3



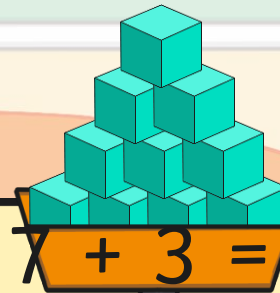
= 10



=



+



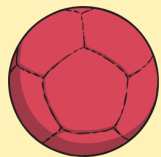
7

+

3

=

10



=



+



Is there more
+ the same answer?

6





=


10

Make a Mass

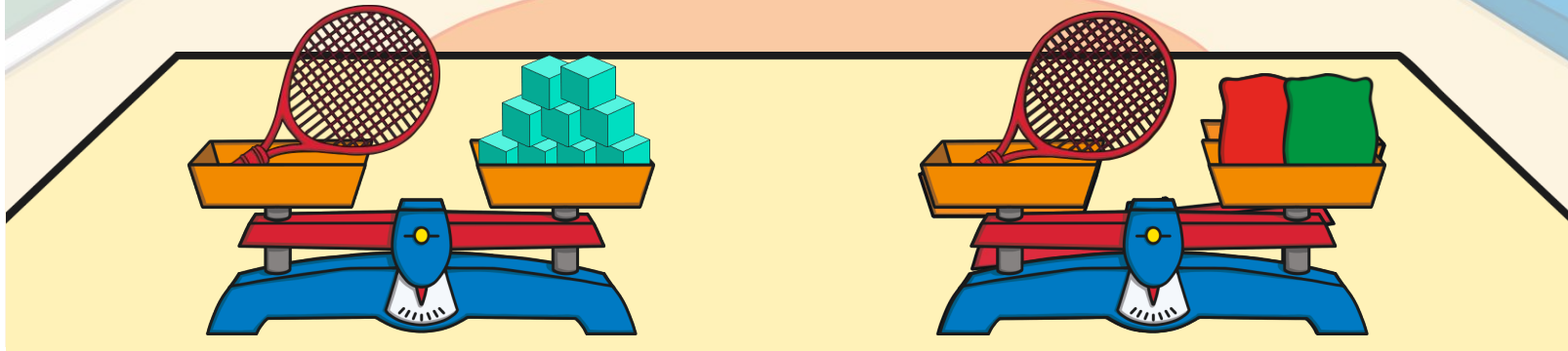


Which beanbag could I put with the red one to make the same mass as the bat?

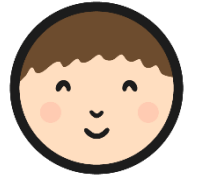
Beanbag				
Number of Blocks	7	4	6	3

 $= 9$

 $+ \square = 9$



Comparing Mass Activities



Mass Problem Solving

To solve mass problems.

Toy	Number of Cubes
kite	_____
ball	9
yo-yo	7

Find the mass of . is the lightest.

Which toys are missing? Draw arrows to show where they go.

Toy	cup and ball	rubber duck	skipping rope
Number of Blocks	6	3	8

is the heaviest.

Write the mass of the skipping rope. Then write the match the same mass as the skipping rope.

_____ blocks _____ + _____

_____ + _____

3 blocks 6 blocks 5 blocks

a) rubber duck b) cup and ball c) toy boat

Mass Problem Solving

To solve mass problems.

Find the mass of the bat and frisbee.

Toy	kite	ball	yo-yo
Cubes	7	9	5

is the lightest.

Which toys are missing? Draw arrows to show where they go.

Toy	cup and ball	rubber duck	skipping rope	bubbles
Number of Blocks	6	3	7	4

is the heaviest.

Write the mass of the bag. Then write the pairs of same mass as the bag.

_____ blocks _____ + _____

_____ + _____

a) 6 blocks c) 2 blocks

b) 5 blocks d) 4 blocks e) 3 blocks

Mass Problem Solving

To solve mass problems.

What are the hidden numbers and toys?

Toy	kite	_____	_____	bat	frisbee
Cubes	7	9	5	_____	_____

is the lightest. is the heaviest.

Which toys are missing? Draw arrows to show where they go.

Number of Blocks	7	3	9	4	1	6
Toy	cup and ball	rubber duck	skipping rope	bubbles	paper plane	toy boat

is the heaviest. is the lightest.

Diving into Mastery

Dive in by completing your own activity!



Mass Problem Solving

Which fruit would you add to the scales make the same mass as the pear?

fruit pear orange banana plum strawberry

Mass Problem Solving

Use the clues to order the fruit.

peach pear orange banana

Use your answer to find which fruit is missing from the scales.

Mass Problem Solving

Use the clues to order the fruit.

peach pear orange banana

The peach is **lighter** than the pear and **heavier** than the banana.

The pear is **heavier** than the peach and **lighter** than the orange.

lightest → heaviest

Use your answers to find which fruits are missing from the scales.

How many ways can you make the same mass as the lemon?

You can use the fruits more than once.
You can use any number of fruits.

fruit	blueberry	raspberry	blackberry
blocks	2	3	4
fruit	cherry	strawberry	
blocks	5	6	

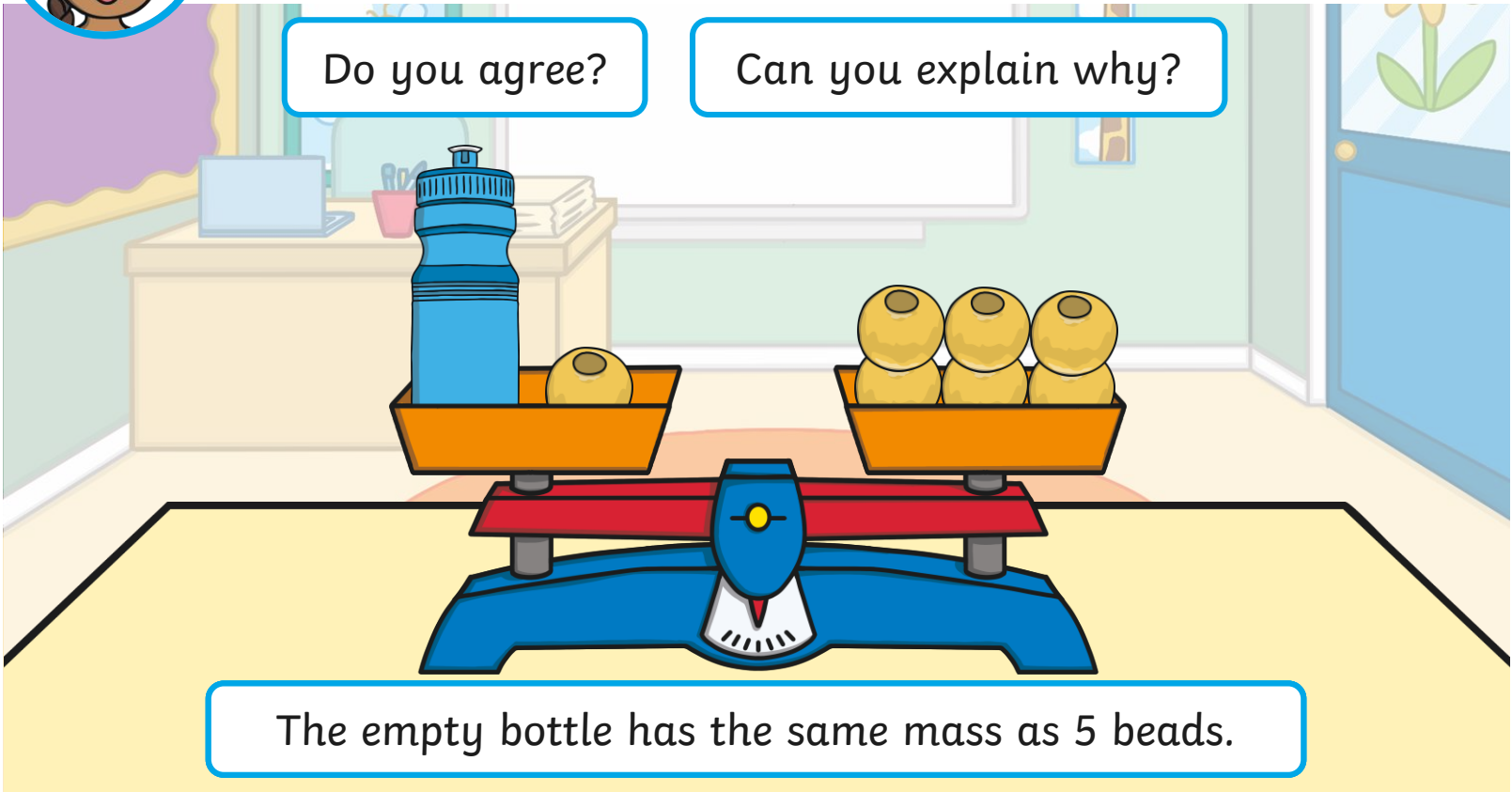
Check It



The empty bottle has the same mass as 6 beads.

Do you agree?

Can you explain why?



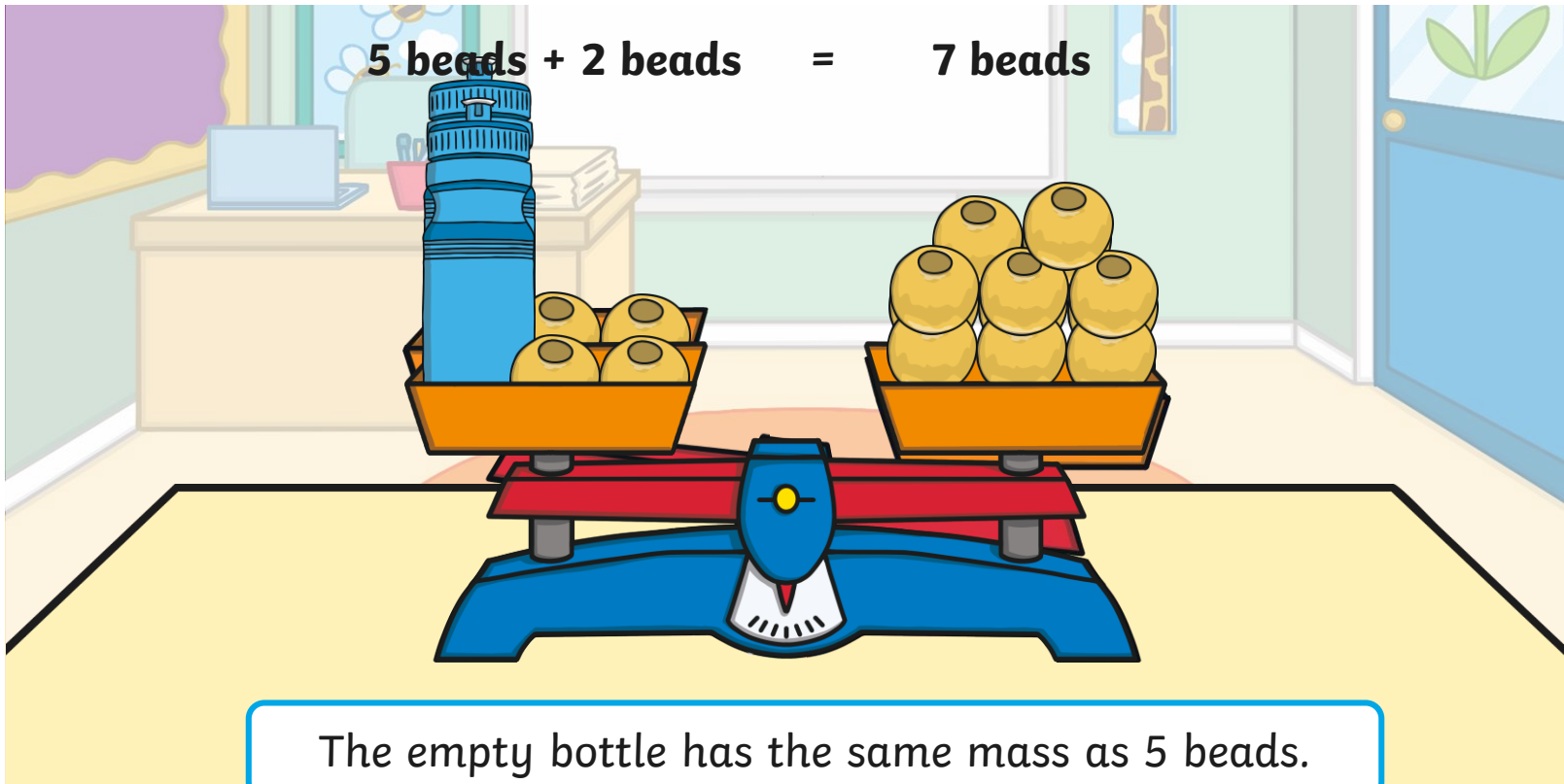
The empty bottle has the same mass as 5 beads.

Check It



We can remove 1 bead from the right side to balance the scale.

$$5 \text{ beads} + 2 \text{ beads} = 7 \text{ beads}$$



The empty bottle has the same mass as 5 beads.

Aim



- To solve mass problems.

Success Criteria

- I can solve problems by measuring mass.
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