



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 which the lessons are presented.

Understanding Length and Height (1): Height Comparison
 This lesson teaches children to compare the heights of familiar objects, of height 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, longest, shortest and similar. 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 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 more 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 (Year 1) Scheme of 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			Consolidation	
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

Comparing Mass



Aim

- To compare mass.

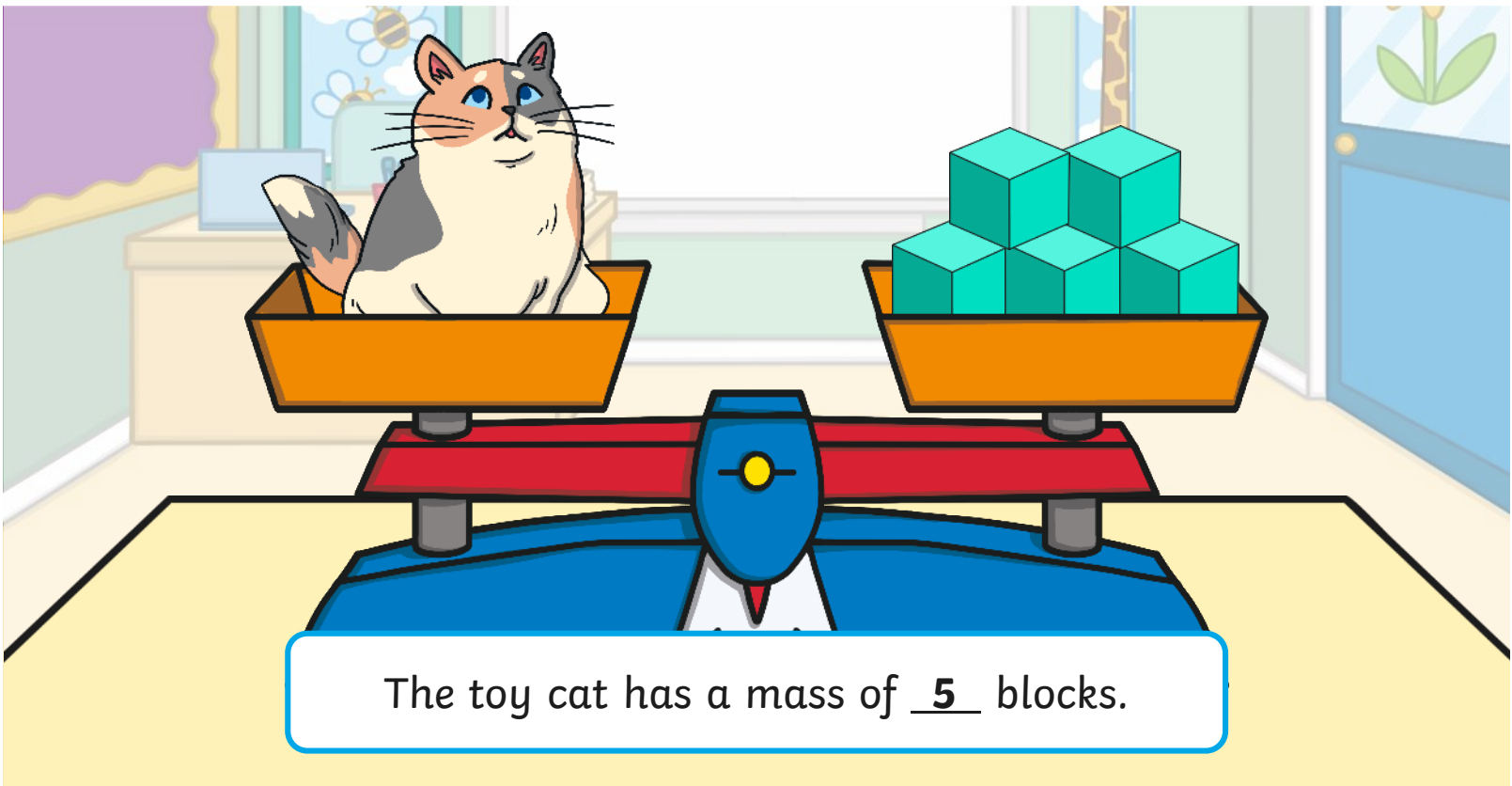
Success Criteria

- I can identify which object is heavier.
- I can identify which object is lighter.
- I can use accurate vocabulary to describe and compare mass.
- I can order objects according to their mass.

Remember It



What is the mass of the toy cat? How do you know?

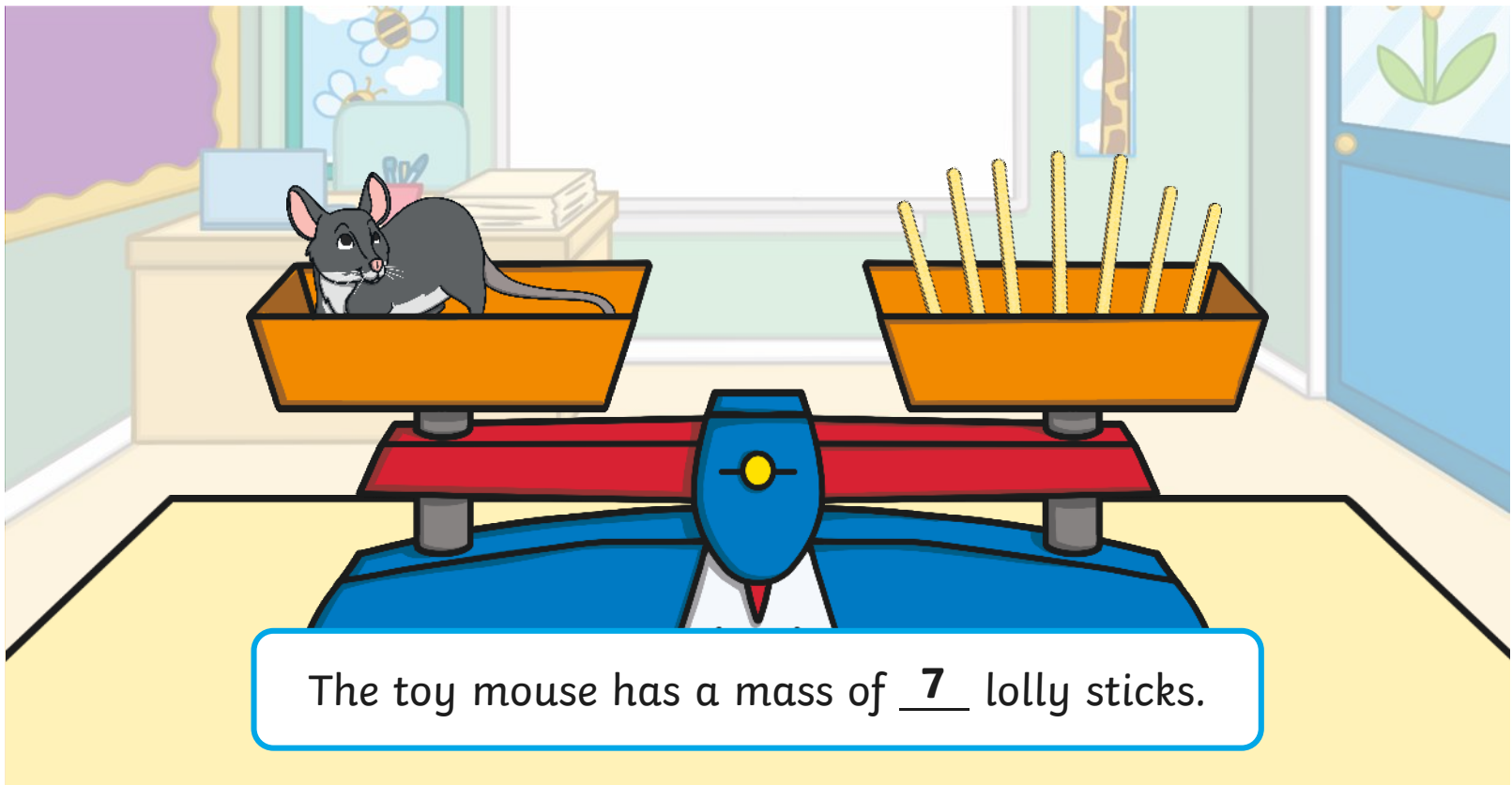


The toy cat has a mass of 5 blocks.

Remember It



What do the balance scales tell us about the mass of the toy mouse?

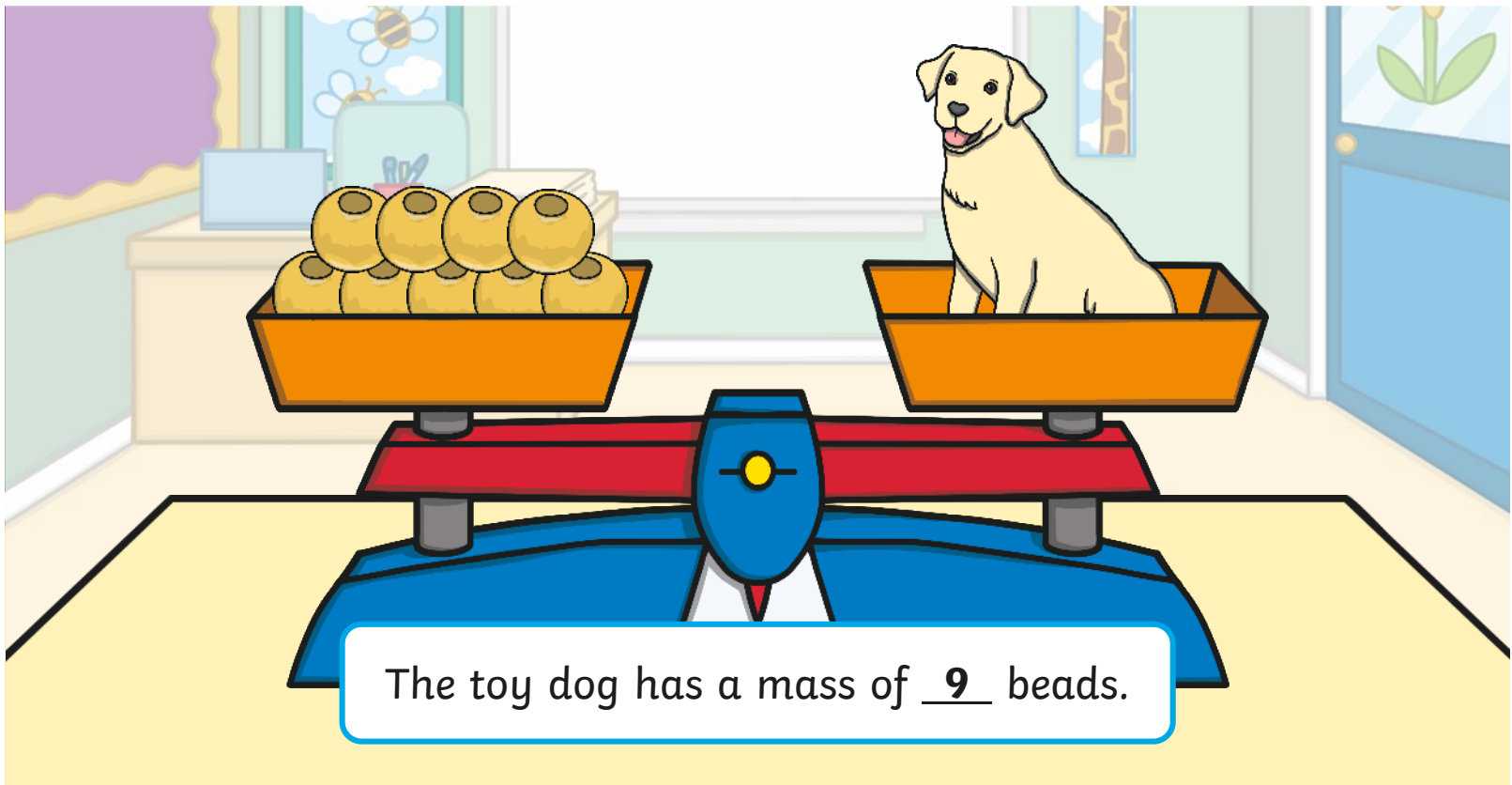


The toy mouse has a mass of 7 lolly sticks.

Remember It



Can you say what the mass of the toy dog is? Explain how you know.



The toy dog has a mass of 9 beads.

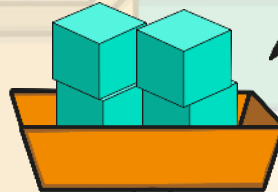
Heaviest



We can use a balance scale to compare mass.

Which toy is the heaviest?

How do you know?



The toy owl has a mass of 4 cubes.

The toy bat has a mass of 6 cubes.

The t The toy bat is the heaviest. owl.

Heaviest



Now let's use real balance scales and cubes to compare the mass of 2 toys.

Which toy is the heaviest?

What can you do to find out?

Let's use these sentences to help us.

The ___ has a mass of ___ cubes.

The ___ has a mass of ___ cubes.

The _____ is the heaviest.

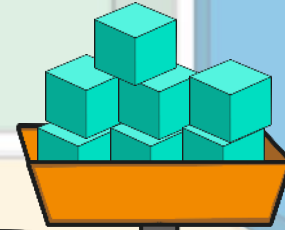
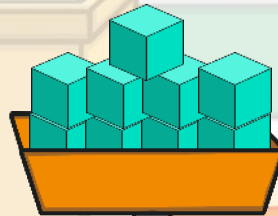
Lightest



We can use a balance scale to compare mass.

Which toy is the lightest?

Can you explain why?



The toy frog has a mass of 9 cubes.

The toy lizard has a mass of 7 cubes.

The toy lizard is the lightest. frog.

Lightest



Now let's use real balance scales and cubes to compare the mass of 2 toys.

Which toy is the lightest?

What can you do to find out?

Let's use these sentences to help us.

The ___ has a mass of ___ cubes.

The ___ has a mass of ___ cubes.

The _____ is the lightest.

Describing Mass



Describe and compare the mass of these toys. Use these words to help you.

mass

heavier

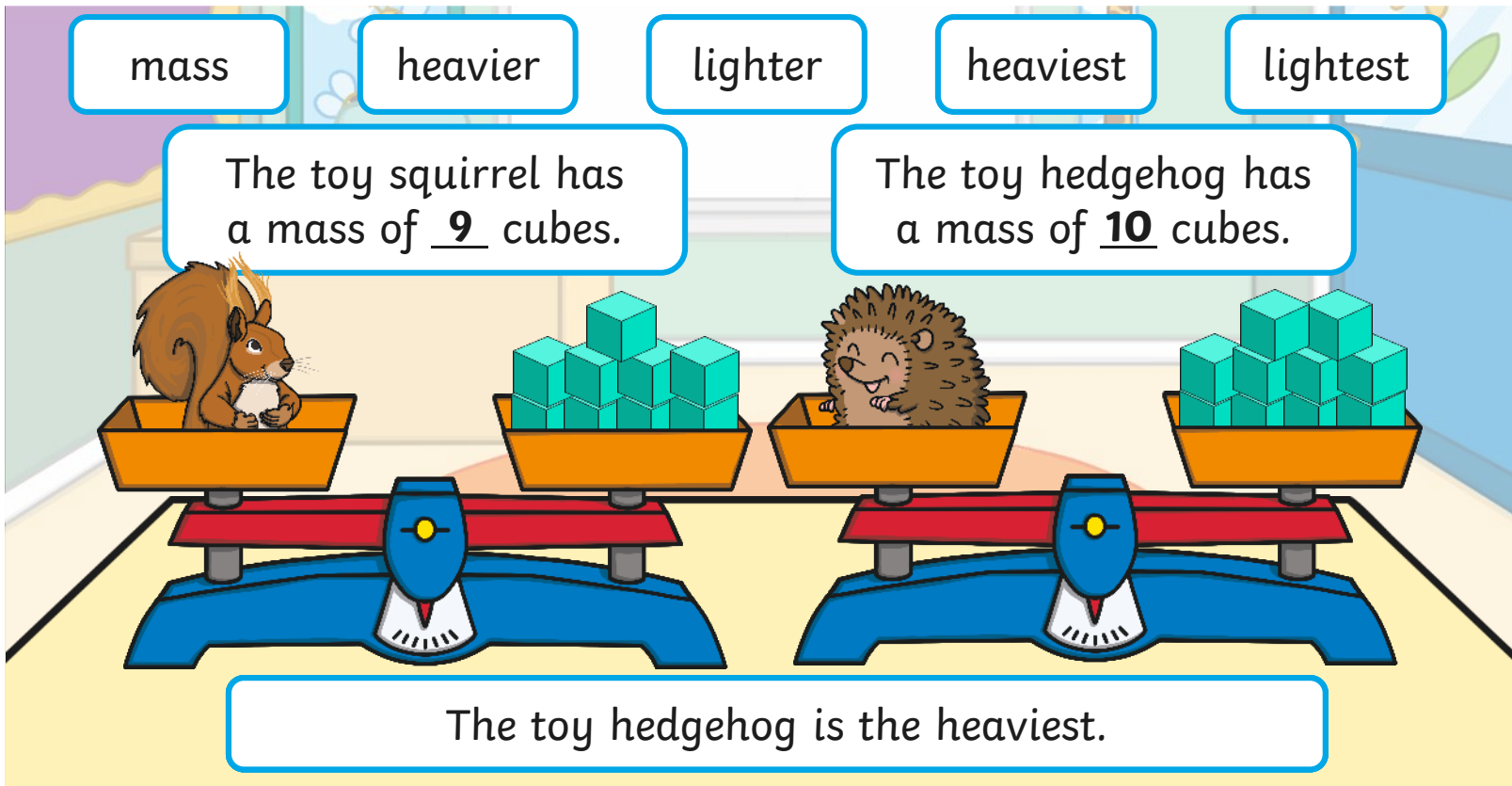
lighter

heaviest

lightest

The toy squirrel has a mass of 9 cubes.

The toy hedgehog has a mass of 10 cubes.



The toy hedgehog is the heaviest.

Equal Mass



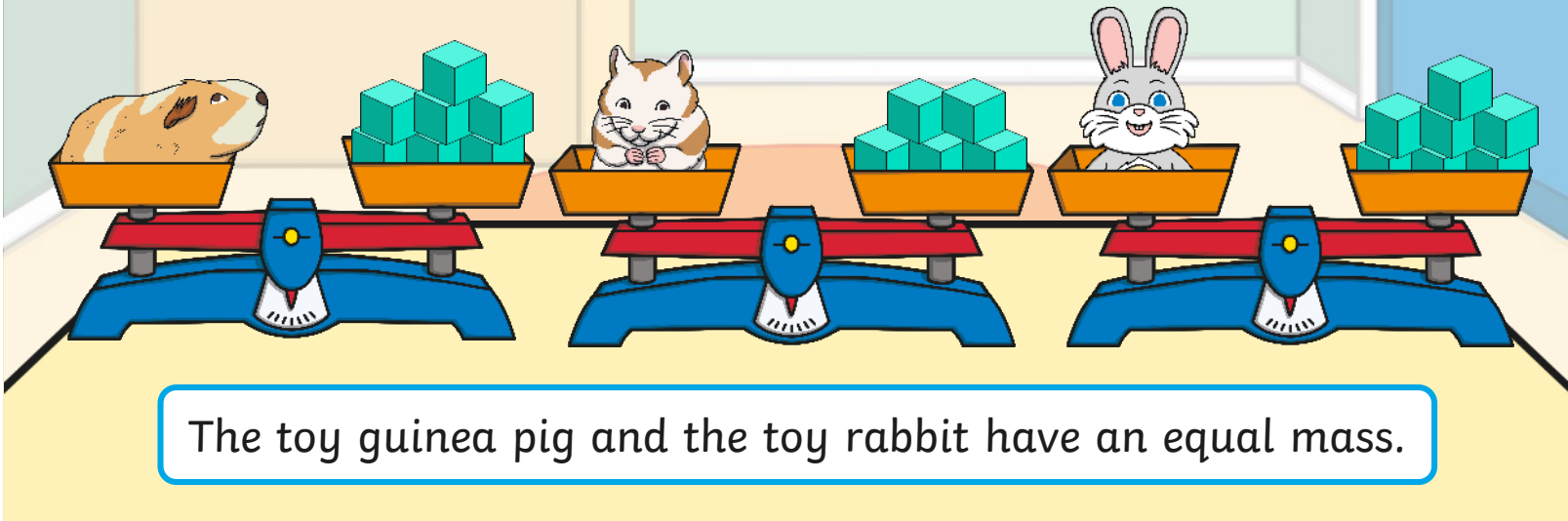
Which toys have an equal mass?

What can you do to find out?

The toy guinea pig has a mass of 7 cubes.

The toy hamster has a mass of 5 cubes.

The toy rabbit has a mass of 7 cubes.



The toy guinea pig and the toy rabbit have an equal mass.

Ordering Mass



Can you put these in order from the lightest to the heaviest toy?

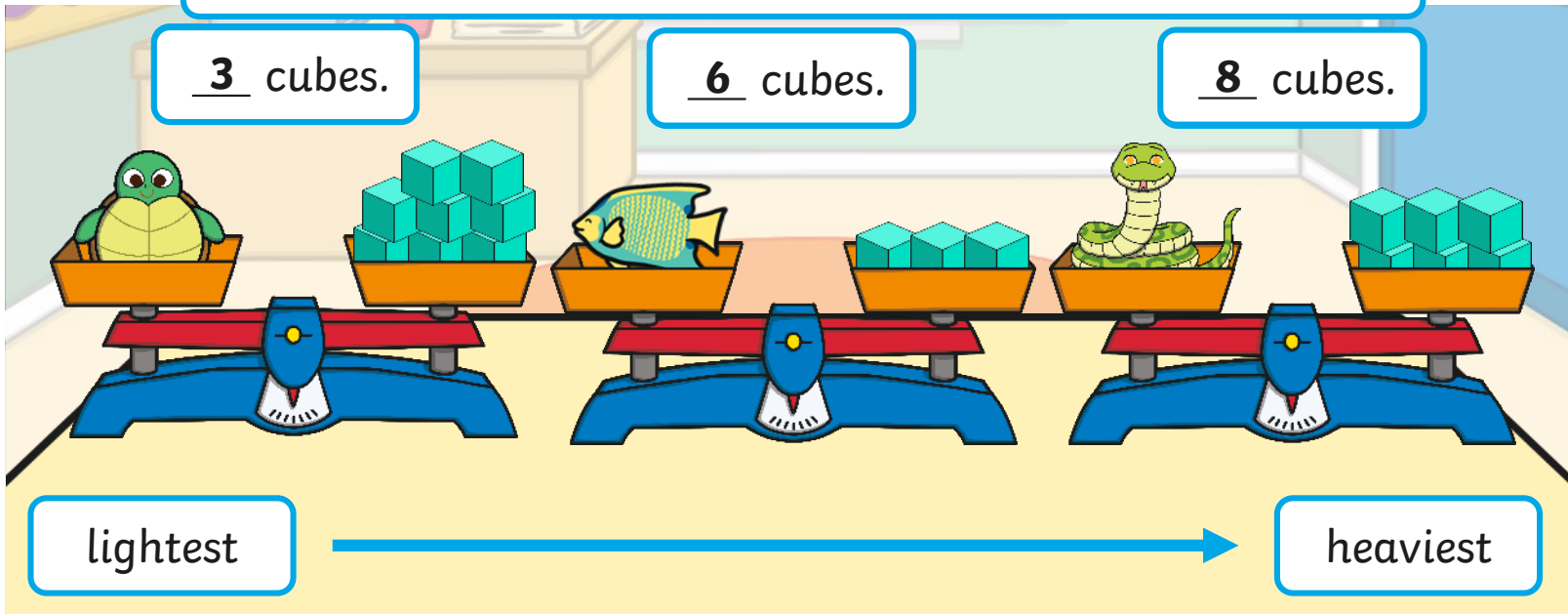
How do we now know they are now in the correct order?

Can you order them in a different way?

3 cubes.

6 cubes.

8 cubes.



Ordering Mass



Can you now order these toys from the heaviest to the lightest toy?

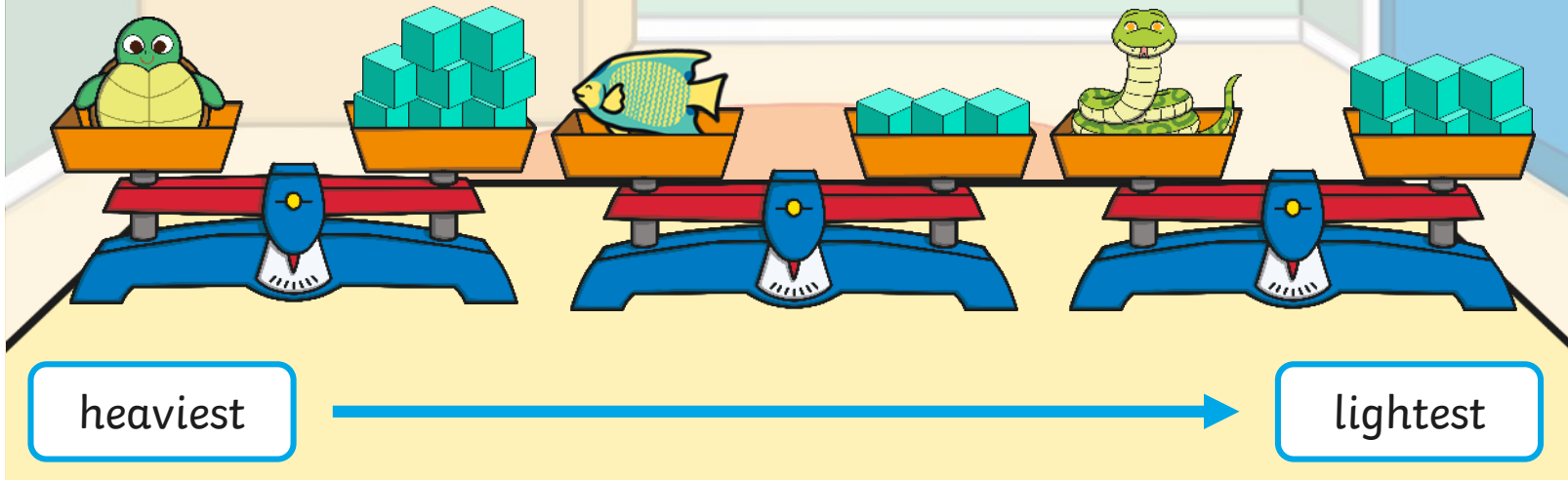
How will the order change?

How do we now know they are now in the correct order?

8 cubes.

6 cubes.




3 cubes.



Ordering Mass



What if I ordered
What do you notice
about the ladybird?
from the lightest to
the heaviest?

Toys	Number of sticks
	9
	5
	7



heaviest




lightest

Ordering Mass



Let's use real balance scales and non-standard units to find the mass of 3 toys.



Can you order them from the heaviest to the lightest?

Toys	Number of sticks
Toy 1	
Toy 2	
Toy 3	

heaviest → lightest

Comparing Mass Activities



Comparing Mass

To compare mass.

Compare the mass of the toys.



The is heavier than the .

The is lighter than the .

Order the toys from the lightest to the heaviest.

rabbit 7 cubes bear 3 cubes

--	--

lightest →

Use cubes to measure the mass of 3 real toys.

Order the toys from the heaviest to the lightest.

--	--

heaviest →

Comparing Mass

To compare mass.

Compare the mass of the toys.

cat 7 cubes hamster 3 cubes

The dog is heavier than the .

The dog is lighter than the .

Order the toys from the lightest to the heaviest.

Toy	Cubes
bear	8
rabbit	6
monkey	4

--	--

lightest →

Use cubes to measure the mass of 4 real toys.

Order the toys from the lightest to the heaviest.

--	--	--

lightest →

Compare the mass of 2 of the toys.

The is than the .

Comparing Mass

To compare mass.

Compare the mass of the toys.

cat 7 cubes guinea pig 5 cubes dog 9 cubes hamster 3 cubes

The guinea pig is heavier than the .

and lighter than the and .

Order the toys from the lightest to the heaviest.

Toy	rabbit	monkey	bear	owl
Cubes	8	2	6	4

--	--	--	--

lightest →

heaviest

Use cubes to measure the mass of 4 real toys.

Order the toys from the heaviest to the lightest.

--	--	--	--

heaviest →

lightest

Pick one of the toys and write facts about its mass.

Diving into Mastery

Dive in by completing your own activity!



Compare Mass

Toy	blue	red	yellow	white
Sticks	4	10	2	8

Order the rockets from the lightest to the heaviest.

★ ★ ★ ★ ★

Compare Mass

Toy	astronaut	rocket	alien	robot
Sticks	7	3	5	9

Compare Mass

The yellow rocket has a mass of sticks. The green rocket has a mass of sticks.

The yellow rocket is than the green rocket.

Useful Words

heavier

lighter

The green rocket is than the yellow rocket.

Toy	red	blue	white
Sticks	4	6	2

Order the toy rockets from the heaviest to the lightest.

heaviest → lightest

Use cubes to measure the mass of 4 toys.
Order them from the lightest to the heaviest.

lightest → heaviest

Compare the mass of 2 of the toys.

The is heavier than the .

The is lighter than the .

Check It

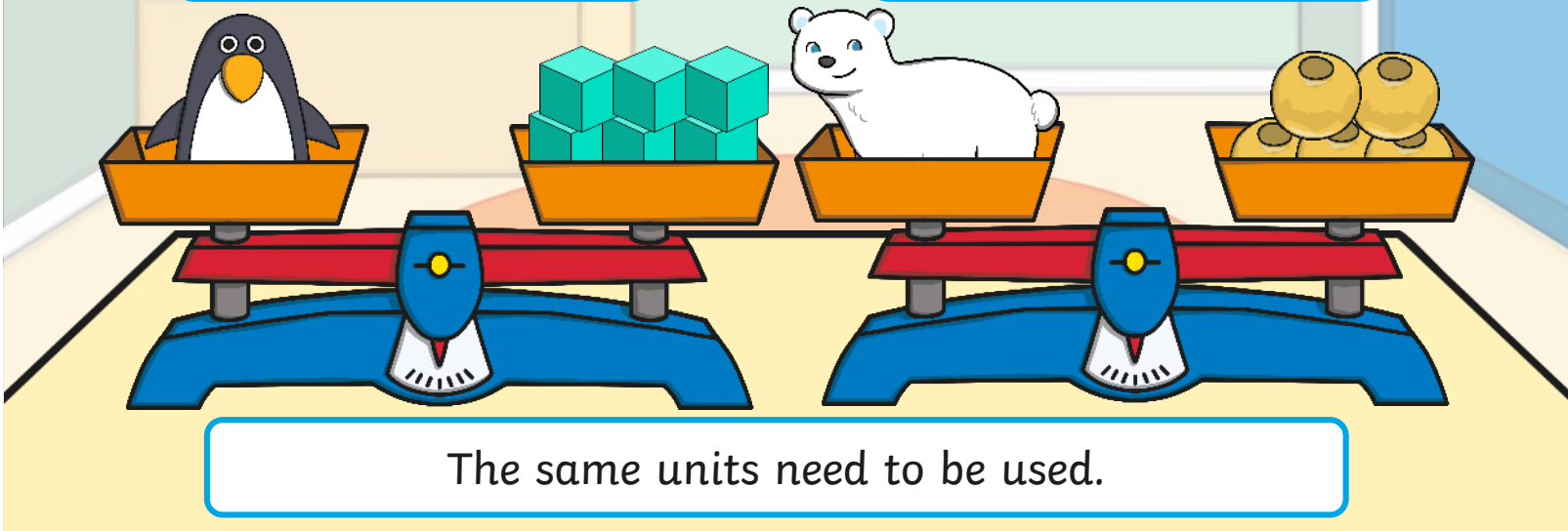


Why can't you compare the masses of these toys?

What needs to be used?

The toy penguin has a mass of 6 cubes.

The toy polar bear has a mass of 5 beads.






The same units need to be used.

Check It



The toy sea creatures have been ordered from the lightest to the heaviest.

Toys	Number of beads
	8
	2
	4

Where would the toy starfish go?

The toy starfish is lighter than the crab.

No. sea creature here

The toy starfish is heavier than the clownfish and the seahorse.

Can you explain why?



lightest



heaviest

Aim



- To compare mass.

Success Criteria

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