

# Y3 M5d. Can compare and order mass using g and kg

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# Teachers' Notes

- ❑ The PiXL therapies can be taught to a whole class or a target group. Year 3-5 therapies are designed to take approximately 30-40 minutes. However, this is flexible: it may be that only part of the therapy is taught or it could, of course, be adapted or extended.
- ❑ Each therapy begins with a LORIC activity to develop relevant learning behaviours.
- ❑ This is followed by a vocabulary task, which uses the PiXL 5-phase approach to teach key mathematical vocabulary. Further resources to develop vocabulary can be found in the Whole School area.
- ❑ Each therapy adopts the 'Teach, model and apply' process with opportunities for pupils to demonstrate the taught skill independently.
- ❑ Problem solving and reasoning activities are an integral part of each therapy.

# Progress across amber – the 4-stage model

The three therapy tests which accompany this resource can be used to revisit the taught skill to check that the pupil is able to perform it independently and consistently.

A

A child has successfully completed a therapy test independently, following a set of therapy sessions.

A

A child has successfully completed a therapy test independently, a period after the relevant therapy sessions – we would advise about 2 weeks.

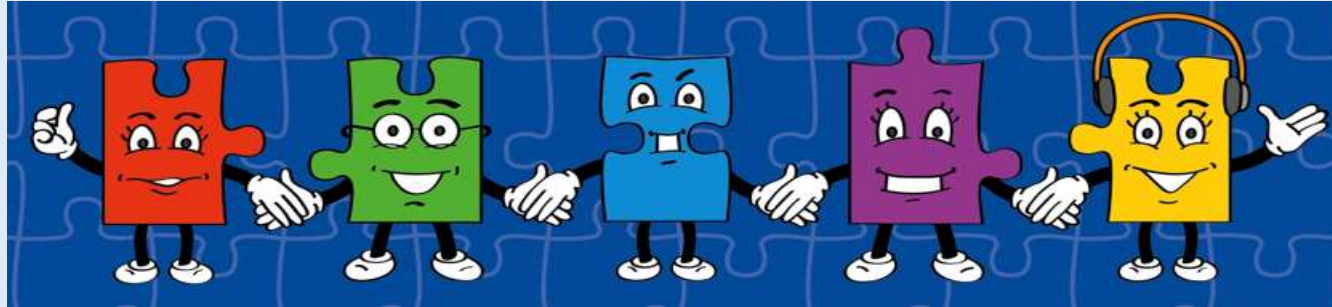
DA

A child has successfully applied their knowledge or skill in an unfamiliar context. This may be application across the curriculum or in a problem.

G

A pupil has successfully re-visited the skills at a later point, and applies these in an unfamiliar context or problem, or across the curriculum.

# LORIC task



Our Primary Edge attributes help us to become better learners and today is no exception. Before you start this activity, here are some ideas for how you will need your Laura Leadership skills today:

- Speak clearly
- Give a reason for your answer
- Apply your mathematical knowledge

# LORIC task

Using a balance scale and weights, estimate what will be the heaviest object. Then weigh the objects and see if you were right.

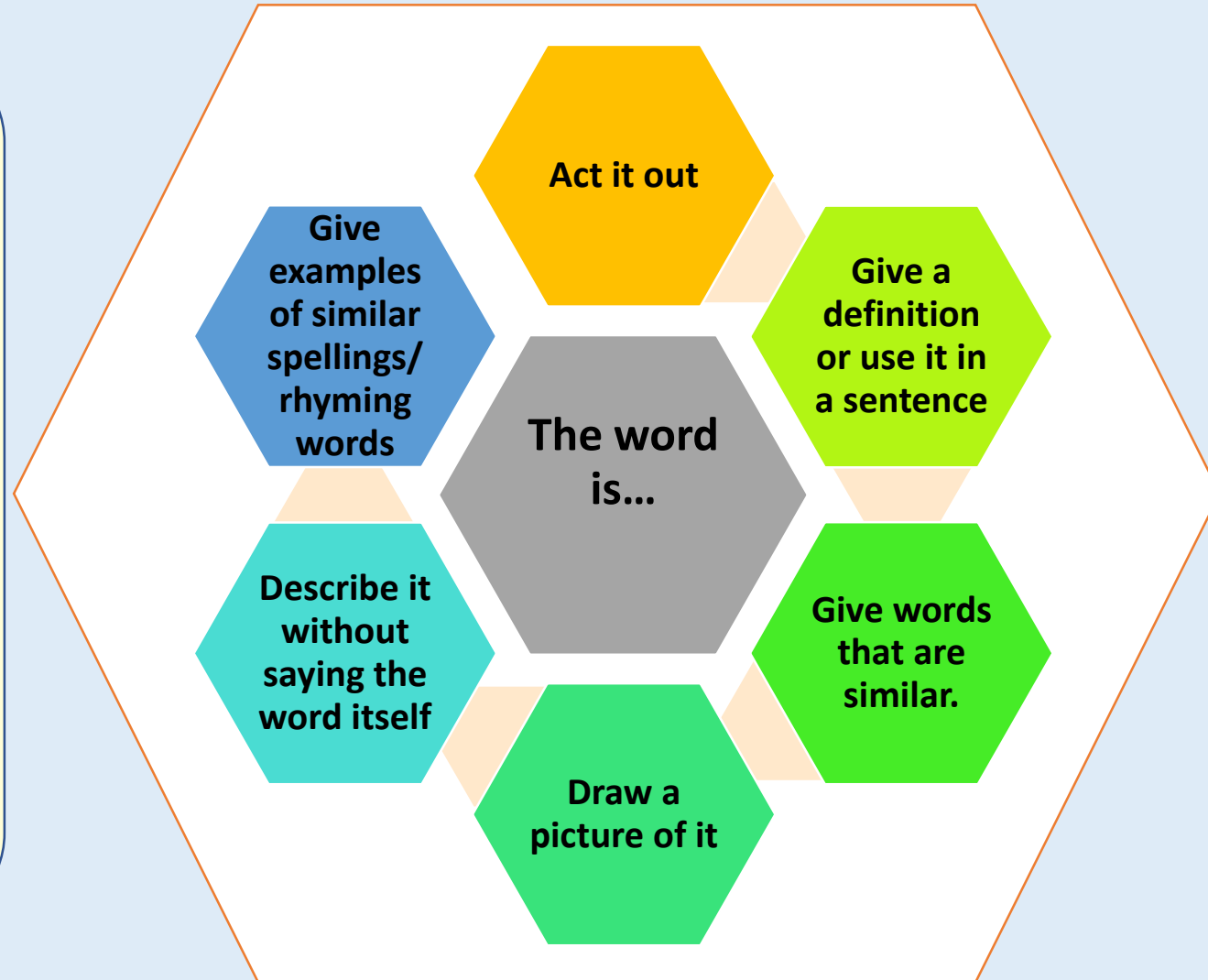


# Vocabulary activity

compare

order

mass



Choose  
a word  
and spin  
the  
spinner.

# Teach

**Mass** tells us how  
**heavy** something is.

# Teach

Which units do  
we use to  
measure **mass**?



# Teach



Look at the kitchen scales. There are **1,000 grams (g)** in **1 kilogram (kg)**.

# Model

**Grams (g)** are used  
for measuring a small  
mass.



Fruit



A letter

# Model

**Kilograms (kg)** are used for measuring a larger mass.



Luggage



Cement

# Model

When we are counting in grams, we call 1,000 grams 1 kilogram.

997g

998g

999g

1kg

# Model

After this, we measure in a mixture of grams and kilograms. Here is an example where we can see an increase of 100g each time.

1kg

1kg 100g

1kg 200g

1kg 300g

Can you continue?

# Model

We can show this on a number line or counting stick. Here is a counting stick which **increases** by 250g each time.

250g	500g	750g	1kg	1kg 250g	1kg 500g	1kg 750g	2kg	2kg 250g	2kg 500g
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What would come next?

# Apply

Which is larger?

1 kilogram

1 gram

**Apply: How did you do?**

Which is larger?

1 kilogram

1 gram



# Apply

Which is larger?

10kg

100g

**Apply: How did you do?**

Which is larger?

10kg

100g

# Apply

Which is larger?

60g

600kg

**Apply: How did you do?**

Which is larger?

60g

600kg

# Apply

Put these measurements into  
**ascending order.**

500kg

50g

50kg

## Apply: How did you do?

Here are the measurements  
in **ascending** order.

50g

50kg

500kg

# Apply

Put these measurements into  
**ascending order.**

1kg 100g

100kg 1g

10kg 10g

## Apply: How did you do?

Here are the measurements  
in **ascending** order.

1kg 100g

10kg 10g

100kg 1g



# Apply

Which bag of cement is the heaviest?

Cement bag	Mass
A	10kg
B	1kg 500g
C	15kg
D	900g

## Apply: How did you do?

Bag C is the heaviest.

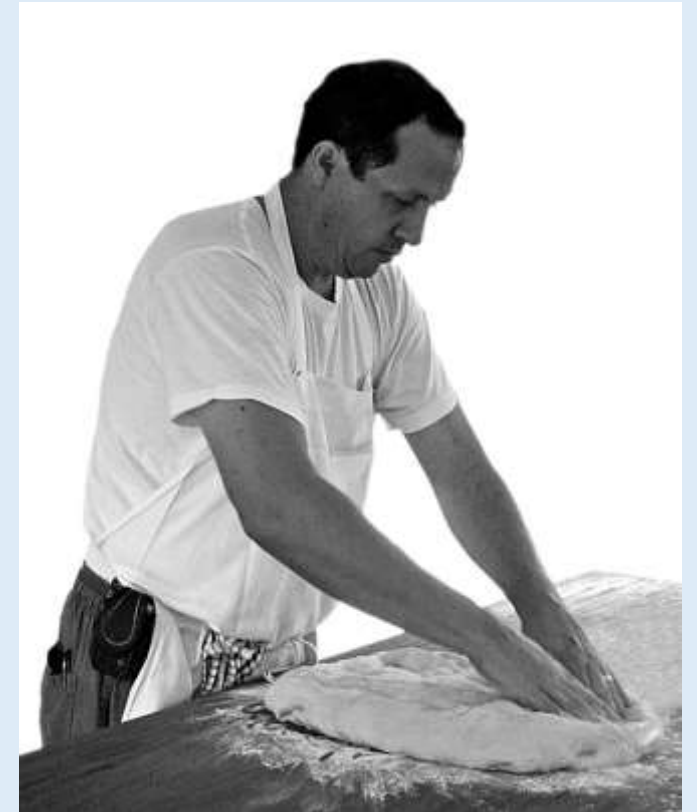
Cement bag	Mass
A	10kg
B	1kg 500g
C	15kg
D	900g

# Apply

Rafael is making bread for his bakery.  
He needs 2kg of flour and 30g of  
yeast.

What is the main ingredient in his  
bread – flour or yeast?

Explain your answer.

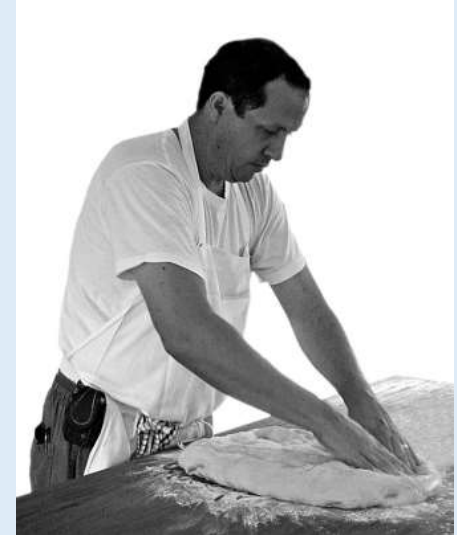


## Apply: How did you do?

Rafael is making bread for his bakery.  
He needs 2kg of flour and 30g of yeast.

What is the main ingredient in his bread – flour or yeast?

Explain your answer.



Flour is the main ingredient, as 2kg is larger than 30g.

# Apply

Here is a list of racing car masses.

Car	Mass
A	740kg 100g
B	745kg 200g
C	741kg
D	780kg

Which is the lightest car?  
Explain your answer.



## Apply: How did you do?

Car A is the lightest car.

Car	Mass
A	740kg 100g
B	745kg 200g
C	741kg
D	780kg

740kg and 100g is the lightest weight.



# Reflect/Remember

Which is larger, grams or kilograms?

How many grams are in a kilogram?