

Y3 M5a. Can understand the relationship between mm, cm, m and g, kg and ml, l

Commissioned by The PiXL Club Ltd.
August 2019

This resource is strictly for the use of member schools for as long as they remain members of The PiXL Club. It may not be copied, sold nor transferred to a third party or used by the school after membership ceases. Until such time it may be freely used within the member school.

All opinions and contributions are those of the authors. The contents of this resource are not connected with nor endorsed by any other company, organisation or institution.

PiXL Club Ltd endeavour to trace and contact copyright owners. If there are any inadvertent omissions or errors in the acknowledgements or usage, this is unintended and PiXL will remedy these on written notification.



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.

Vocabulary activity

length
capacity
mass

| | |
|-----------------------|--------------------|
| The word is: | Meaning: |
| | _____ |
| | _____ |
| | _____ |
| | _____ |
| | _____ |
| Image/graphic: | In context: |
| | _____ |
| | _____ |
| | _____ |
| | _____ |
| | _____ |

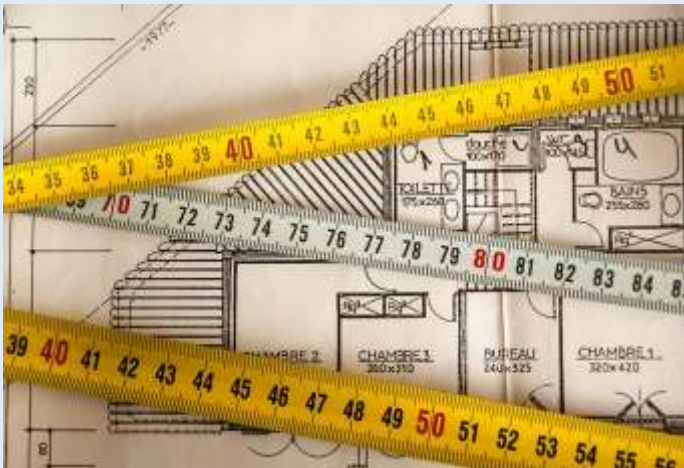
Teach

Length tells us
how **long** or **far**
something is.

Teach



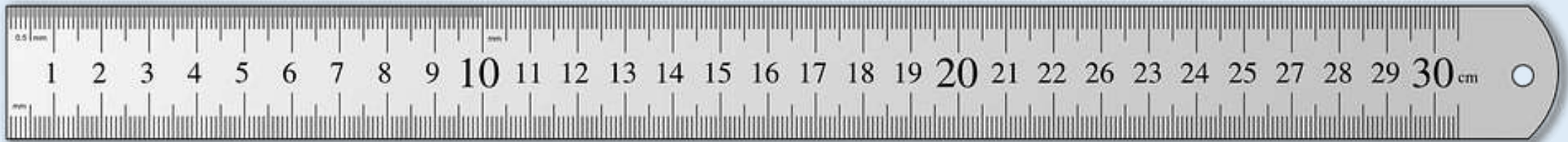
When might we
need to measure
length in real life?



Teach

In what units do
we measure
length?

Teach



Look at your ruler. There are
**10 millimetres (mm) in
1 centimetre (cm).**

Model

Millimetres (mm) are used for measuring very small lengths accurately.



A seed



A screw

Apply

What else might be
measured using
millimetres (mm)?

Model

Centimetres (cm) are used for measuring quite small lengths.



A table



Your measurements

Apply

What else might be
measured using
centimetres (cm)?

Teach



Look at a metre stick or tape measure. There are **100 centimetres in 1 metre.**

Model

Metres (m) are used
for measuring larger
lengths.



The playground



A room

Apply

What else might be
measured using **metres**
(m)?

Apply

There are ____
millimetres in
1 centimetre.

Apply

There are ____
centimetres in 1 metre.

Apply

What would you use to measure the **length** of the following items?

A staple

The distance from your classroom to the hall

Your height

Teach

Mass tells us how
heavy something is.

Teach

When might we need to measure mass in real life?



Teach

In which units do
we 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

Apply

What else might be
measured using **grams**
(g)?

Model

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



Luggage



Cement

Apply

What else might be
measured using
kilograms (kg)?

Apply

There are ____ grams in
1 kilogram.

Apply



Jacob says he would measure the **mass** of a fork using **kilograms**.

Is he correct?

Explain your answer.

Teach

Capacity tells us how much liquid can be held in a container.

Volume tells us how much space the liquid occupies.



Teach



When might we
need to measure
volume or
capacity in real
life?



Teach

In which units do
we measure
capacity and
volume?

Teach



Look at the measuring jug. There are **1,000 millilitres (ml)** in **1 litre (L)**.

Model

Millilitres (ml) are used for measuring a small capacity or volume.



Medicine



A bottle of water

Apply

What else might be
measured using
millilitres (ml)?

Model

Litres (L) are used for measuring a large capacity or volume.



Petrol



Bucket

Apply

What else might be
measured using **litres**
(L)?

Apply

There are ____ millilitres
in 1 litre.

Apply

What unit should Kamal use to measure the **volume** of water in her container?
How can she measure this?



Reflect/Remember

Tell your partner which units you would use to measure:

Length

Mass

Volume/capacity