## Length and Height

27.04.20

## Date: 27.04.20

## LO: To be able to measure length using cm

## Success Criteria

$\checkmark$ I can use my knowledge of measuring with nonstandard units of measurement to measure using cm
$\checkmark$ I can explain my reasoning when using my knowledge of measuring with non-standard units of measurement to measure using cm

## Starter

## Can you use your measuring skills to explain to a grown up which image doesn't belong. Remember to use I know that statements. <br> I know that it is... because

## Which one doesn't belong?



Explain your answer.

## Descriptive teaching

Talking Time:
How long is the pencil?


The pencil is __cm long.

How would you describe the length of
the pencil?

## Descriptive teaching

Talking Time:
How long is the pencil?


## How would you describe the length of the pencil?

The pencil is __ cm long.

## Descriptive teaching

Talking Time:
How tall is the cuboid in cm ?


The cuboid is __cm tall.

## Descriptive doing

Draw straight lines of various lengths and orientations on to paper.

Children to measure each line to the nearest cm.


## Reflective teaching

James says, "The cuboid is 8 cm tall."

Do you agree?
Explain your answer.


## Reflective doing

Discuss with an adult if it is possible to measure the string. Can you do it without moving it?

Is it possible to measure the piece of string shown below?


If so, how would you go about measuring the piece of string? Explain your answer.

## Challenges

The following slides are questions for you to work through independently. These are reasoning and problem solving question so if it says EXPLAIN you need to write how you know the answer.

There are 3 sets of work - Green (the easiest), Orange and Red(the hardest). Choose one set you feel most comfortable with.

You could challenge yourself by completing more than one challenge!

## Challenge

1a. Which is the odd one out?
A.

B.

C.


Explain your answer.

1b. Which is the odd one out?
A.

B.

C.


Explain your answer.

## Challenge

2a. Nadia and Alex are measuring the length of a toy flag pole.


Nadia says,


2b. Martin and Harriet are measuring the length of a shelf in a dolls house.


Martin says,


## Challenge

3a. David's toy bus measures between 4 cm and 9 cm .

Find two possible measurements for his toy bus.


3b. Josie's doll measures between 6cm and 10 cm .

Find two possible measurements for her doll.


## Challenge

4a. Which is the odd one out?

B.

C.

## Explain your answer.

4b. Which is the odd one out?

A.

B.

C.

Explain your answer.

5a. Zoe and Mike are measuring the length of a pencil.


Zoe says,


This pencil is 8 cm long.
Mike says,
This pencil is 6 cm long.
Who is correct? Explain your answer.
罗

5b. Niall and Sarah are measuring the length of a shape.


Niall says,


## The shape is 7 cm long.

Sarah says,
This shape is 9 cm long.
Who is correct? Explain your answer.

## Challenge

6a. Abdul's toy bottle measures between 10 cm and 15 cm .

What are the possible measurements his bottle of drink could be?

6b. Pippa's colouring pencils measure between 9 cm and 14 cm .

What are the possible measurements her colouring pencils could be?


## Challenge

7a. Which is the odd one out?




Explain your answer.

7b. Which is the odd one out?


Explain your answer.

## Challenge

8a. Ciara and Tom are measuring the length of a toy ladder.
 01 3 5

Ciara says,


The ladder is 4 cm long.
Tom says,
The ladder is 6 cm long.
Who is correct? Explain your answer.

8a. William and Isabel are measuring the length of a toy spear.

##  <br> 

William says,


Isabel says,
The spear is 7 cm long.
Who is correct? Explain your answer.

## Challenge

9a. Gemma's flag measures between 10 cm and 20 cm .

What are the possible measurements her flag could be if her answer is an even number?

9b. Frank's teddy measures between 5 cm and 15 cm .

What are the possible measurements his teddy could be if his answer is an odd number?


## Reflection Time



Do you agree with Astrobee?
Explain your answer.

## Length and Height

28.04.20

## Date: 28.04.20

## LO: To be able to measure length using $m$

## Success Criteria

$\checkmark$ I can use my knowledge of measuring using cm to measure length using $m$
$\checkmark$ I can explain my reasoning when using my knowledge of measuring using cm to measure length using m

## Starter

## What is the same and what is different? <br> I know that.... Is the same/ different because....

If the yellow and red stick measures 1 metre in length, what's the same and what's different?


Explain your answer.

## Descriptive doing

## Can you sort the objects into more than and less than 1 m ?

Measure the following using metre sticks (or tape measures) to the nearest metre and to the nearest metre and centimetre.

- Five large items from the garden
- Five pieces of furniture from the house
- Five big steps by three different people

Keep a record of the measurements you take in your book!
Example: The bench is 1 metre and 57 centimetres wide.

## Descriptive teaching

If 1 metre and 23 centimetres can be written as 1 m and 23 cm , then

1 metre and 45 centimetres
can be written as


## Descriptive teaching

If 1 metre and 23 centimetres can be written as 1 m and 23 cm , then

## 4 metres and 23 centimetres

can be written as


## Descriptive teaching

Yasmin is measuring pieces of wood in the timber yard. What is the length of the piece of wood being measured?


## Descriptive doing

Now have a go at measuring using $m$ and cm

Yasmin is measuring pieces of wood in the timber yard. What is the length of the piece of wood being measured?

__m and cm

## Reflective teaching

Measure the following objects or distances:

- five windows, doors or walls in your house
- two corridors in your house
- The living room

Record the measurements in the format $\qquad$ $m$ and cm .

## Reflective doing

The green alien is 4 m tall.
The green alien is double the height of the orange alien.
The purple alien is taller than the orange alien, but shorter than the green alien.
a) How tall is the orange alien?
b) How tall is the purple alien? How many possible measurements can you think of?


## Challenge



## Challenge

2a. Amelia has been sorting objects into the chart below.


Has she sorted them correctly? Explain your answer.

2b. Hasan has been sorting objects into the chart below.


Has he sorted them correctly? Explain your answer.

## Challenge

3a. Alfie is measuring objects. He says,


Is he correct? Explain your answer.

3b. Anna is measuring objects. She says,


Is she correct? Explain your answer

## Challenge

4a. Use the digit cards to estimate a suitable length for these objects.


4b. Use the digit cards to estimate a suitable length for these objects.


5a. Abel has been sorting objects into the chart below.

| Measure in <br> metres | Measure in <br> centimetres |
| :---: | :---: |
| dolphin | bread |
| 8 | car |

Has he sorted them correctly? Explain your answer.

5b. Julia has been sorting objects into the chart below.

| Measure in <br> metres | Measure in <br> centimetres |
| :---: | :---: |
| bucumber | ball |
| nippo |  |
| street <br> light |  |

Has she sorted them correctly? Explain your answer.

## Challenge

6a. Naseem is measuring objects. She says.


Is she correct? Explain your answer.

6b. Simon is measuring objects. He says,


Is he correct? Explain your answer

## Challenge



## Challenge

8a. Sobia has been sorting objects into the chart below.


Has she sorted them correctly? Explain your answer.

8b. Stefan has been sorting objects into the chart below.


Has he sorted them correctly? Explain your answer.

## Challenge

9a. Awais is measuring objects. He says,


Is he correct? Explain your answer.

9b. Leila is measuring objects. She says,


Is she correct? Explain your answer

## Reflection

If I have a 1 m ruler and Bumble is longer than $1 \mathrm{~m}, \mathrm{I}$ can't measure Bumble.

Do you agree with Astrobee?
Explain your answer.

## Length and Height

29.04.20

## Date: 29.04.20

## LO: To be able to compare lengths

## Success Criteria

$\checkmark$ I can use phrases such as "longer/taller than", "shorter than" and "equal to" as well as the comparison symbols <, > and = to compare lengths
$\checkmark$ I can explain my reasoning when using phrases such as "longer/taller than", "shorter than" and "equal to" as well as the comparison symbols <, > and = to compare lengths

## Starter

What is the same and what is different?
I know that.... Is the same/ different because....

Comparing the following length measurements, what is the same? What's different?

$$
27 \text { m }
$$

Explain your answer.

## Descriptive Teaching

 lengths.Using the phrases, "longer/taller than", "shorter than" and "equal to", compare:
7 cm
6 m
seven metres


6 cm


700 cm

## Descriptive Teaching

 lengths.Using the phrases, "longer/taller than", "shorter than" and "equal to", compare:

> 17 m
> 16 cm
twenty centimetres


## Descriptive Doing

Using the phrases, "longer/taller than", "shorter than" and "equal to", compare:

$$
\begin{array}{ll}
34 \mathrm{~m} \\
27 \mathrm{~cm}
\end{array} \begin{aligned}
& 39 \mathrm{~m} \\
& \begin{array}{c}
\text { thirty } \\
\text { metres }
\end{array} \\
& \begin{array}{c}
\text { twenty-se } \\
\text { centimetr }
\end{array} \\
&
\end{aligned}
$$

## Reflective Doing

Use the symbols <, > and = to complete the following.

## 4 m



## 14 m

16 cm
 6 m 19 cm


19
centimetres

## Reflective Doing

Use the symbols <, > and = to complete the following...

## fifty <br> metres



## 53 cm

49 cm


## 49 m

fifty-two centimetres


52 cm

## Reflective Doing

A dark piece of wood is twice as long as a light piece of wood.


Using this information, complete the following using $<,>$ or $=$.
three pieces of dark wood $\qquad$ three pieces of light wood

> two pieces of dark wood
$\qquad$ four pieces of light wood
$\qquad$ seven pieces of light wood

## Challenge

1a. Michaela's flower grows to be 12 cm . Suzy's flower is shorter.

## 16 cm

## 9 cm

Choose which measurement describes Suzy's flower.

1b. Marley has a longer garden than Luca. It measures 10 m .

## 12m

## $3 m$

Choose which measurement describes Luca's garden.

## Challenge



## Challenge

3a. Samantha uses a tape measure to find the length of two planks of wood.

Plank $A$ is 2 m long and Plank $B$ is 10 m long.

Samantha says,


Is she correct? Explain how you know.
0

Pencil B is longer than Pencil A.

Is he correct? Explain how you know.

## Challenge

4a. Jordan's piece of string is the longest and measures 3 m . Matt's string is smaller than Lucy's and measures 100 cm .


Choose which measurement describes Lucy's piece of string.


117 cm
4b. Rosie's kitten measures 24 cm and is longer than Wilf's kitten. Noreen's kitten is the smallest and measures 12 cm .

Choose which measurement describes Wilf's kitten.

## Challenge

5a. Arrange the cards below in the following template to create three true statements.


5b. Arrange the cards below in the following template to create three true statements.


## Challenge

6a. Nathan uses a tape measure to find the length of two boxes.

Box $A$ is four metres long and Box $B$ is 4 cm long.

Nathan says,


Is he correct? Explain how you know.

6b. Dylan uses a tape measure to find the length of two ropes.

Rope $A$ is 6 centimetres long and Rope $B$ is 6 m long.

Dylan says,


Is he correct? Explain how you know.

## Challenge

7a. Jaimie's bag is the smallest and measures 60 cm . Ella's bag measures 120 cm and is longer than Jack's.


Choose which measurement describes Jack's bag.

7b. Nadia has the shortest sunflower which measures 108 cm . Jess's sunflower measures 2 m , and Claudia's sunflower is the same height as Jess's.


200 cm
117 cm

Choose which measurement describes Claudia's sunflower.

## Challenge



## Challenge

9a. Hannah uses a metre stick to find the length of three walls.

Wall $A$ is 1 m long, Wall $B$ is ten metres long and Wall $C$ is 100 cm long.

Hannah says,


Is she correct? Explain how you know.

9b. Eden uses a ruler to find the length of three picture frames.

Frame A is forty centimetres long, Frame B is 120 cm long and Frame $C$ is 29 cm long.

Eden says,


Frame C is shorter than Frame A, but longer than Frame B.

Is she correct? Explain how you know.

## Reflection Time



Is Astrobee's statement sometimes, always or never true? Explain your answer.


## Length and Height

30.04.20

## Date: 30.04.20

## LO: To be able to order lengths

## Success Criteria

$\checkmark$ I can use my knowledge of measuring and comparing lengths to order lengths
$\checkmark$ I can explain my reasoning when using my knowledge of measuring and comparing lengths to order lengths

## I know.... because....

If the following are the second and third steps in a sequence, what would come before and what would come afterwards?


## 10 m

Explain your answer.

## Descriptive Teaching

Ahmed, Ruth and Jamal are comparing their rectangles.

> Who has the longest rectangle?

Complete the sentence below:
$\square$ 's rectangle is the longest.


## Descriptive Teaching

Ahmed, Ruth and Jamal are comparing their rectangles.


Complete the sentence below:
's rectangle is the longest.

## Descriptive Teaching

Talking Time:
Ahmed, Ruth and Jamal are comparing their rectangles.


Complete the sentence below:
$\qquad$ 's rectangle is shorter than Jamal's.

## Descriptive Teaching

## Talking Time:

Ahmed, Ruth and Jamal are comparing their rectangles.

Complete the sentence below:
___ 's rectangle is longer than Jamal's.


## Descriptive Doing

Chen, James and Yasmin are comparing their rectangles.
Complete the sentence below:


## Descriptive Doing

Select four books (of different sizes).
Order them from shortest to longest based on their width. Now, order them from shortest to longest based on their height.

What's the same? What's different?
Have certain books changed their place in the order?
Keep a record in your exercise book, explaining your answers.
Remember to explain your answer.
I know that...
because...

## Challenge

1a. These toys have been placed in order of length from longest to shortest.


Match the toy to its length.

| Trumpet |
| :---: |
| Duck |
| Tower |


| 56 cm |
| :--- |
| 11 cm |
| 34 cm |

1b. These flowers have been placed in order of height from shortest to longest.


Match the food to its height.

| Sunflower |
| :---: |
| Cactus |
| Lily |


| 98 cm |
| :---: |
| 56 cm |
| 49 cm |

## Challenge

2a. Here are the lengths of some foods.

| Item | Length |
| :---: | :---: |
| loaf | 42 cm |
| donut | 12 cm |
| bun | 20 cm |

Use the symbol < to order the statements.

donut
2b. Here are the heights of some animals.

| Item | Height |
| :---: | :---: |
| elephant | 3 m |
| giraffe | 6 m |
| gorilla | 1 m |

Use the symbol > to order the statements.


## Challenge

3a. Samantha has ordered her toy aliens.


Hayley's one-eyed alien is taller than Samantha's one-eyed alien.

Hayley says,
I have the tallest alien.
Is she correct? Convince me.约

3b. Kyle has picked and ordered his fruit.


Alex has picked a starfruit that is smaller than Kyle's.

Alex says,
I have picked the smallest fruit.

Is he correct? Convince me. $\stackrel{\rightharpoonup}{5}$


## Challenge

4a. These toys have been placed in order of length from longest to shortest.


Match the toy to its length.

| Bus |
| :---: |
| Helicopter |
| Boat |
| Scooter |


| 66 cm |
| :---: |
| 46 cm |
| 1 m 4 cm |
| 21 cm |

4b. These foods have been placed in order of height from shortest to tallest.


Match the food to its height.

| Pineapple |
| :---: |
| Watermelon |
| Pumpkin |
| Carrot |


| 1 m 34 cm |
| :---: |
| 27 cm |
| 17 cm |
| 76 cm |

## Challenge

5a. Here are the lengths of some toys.

| Item | Length |
| :---: | :---: |
| car | twenty two centimetres |
| toy snake | 55 cm |
| dolls' house | 1 m 15 cm |

Use the symbol < to order the statements.

5b. Here are the heights of some items.

| Item | Height |
| :---: | :---: |
| desk | 61 cm |
| door | 1 m 50 cm |
| box | 30 cm |

Use the symbol > to order the statements.


## Challenge

6a. Katie has picked and ordered these flowers.


Lily Sunflower Azalea
Carla has a sunflower that is taller than Katie's sunflower.

Carla says,

My flower will go last.


Is she correct? Convince me.

6b. Billy ordered his toy vehicles.


Zack has a car that is shorter than Billy's.

Billy says,
I have the shortest vehicle.

Is he correct? Convince me.

## Challenge

7a. These plants have been placed in order of height from shortest to tallest.


Match the toy to its length.

| Palm tree |
| :---: |
| Sunflower |
| Cactus |
| Pine tree |


| 30 m |
| :---: |
| 126 cm |
| 11 m |
| 1 m 11 cm |

7b. These toy vehicles have been placed in order of length from longest to shortest.


Match the vehicle to its length.

| Ambulance |
| :---: |
| Taxi |
| Bus |
| Scooter |


| 164 cm |
| :---: |
| 98 cm |
| 1 m 32 cm |
| 78 cm |

## Challenge

8a. Here are the heights of some children.

| Name | Height |
| :---: | :---: |
| Katie | 85 cm |
| Laura | $1 \mathrm{~m} \mathrm{5cm}$ |
| Lark | 103 cm |

Use the symbol < to order the statements.


8b. Here are the lengths of some items.

| Item | Length |
| :---: | :---: |
| table | 154 cm |
| TV | 60 cm |
| rug | 1 m 5 cm |

Use the symbol > to order the statements.


## Challenge

9a. Henry has grown these vegetables.


Mike has grown a potato than is longer than Henry's and a radish that is shorter than Henry's.
Mike says,
I have grown the shortest vegetable.

Is he correct? Convince me.
GO

9b. Cassie has picked these flowers.

Azalea

Sunflower
Millie has picked a lily that is shorter than Cassie's and a sunflower that is taller than Cassie's.
Millie says,
I have picked the tallest flower.

Is she correct? Convince me.

## Reflection



Is Astrobee's statement true or false?
Explain your answer.


## Length and Height

01.04.20

## Date: 01.05.20

## LO: To be able to calculate using length

## measurements

## Success Criteria

$\checkmark$ I can use my knowledge of addition and subtraction to calculate using length measurements
$\checkmark$ I can explain my reasoning when using my knowledge of addition and subtraction to calculate using length measurements

## Starter

What's the same? What's different?

$$
87 m-8 m
$$

Explain your answer.

## $59 m+20 m$

## Descriptive teaching

Ahmed has a toy motorcycle and a toy digger.
The motorcycle is 5 cm long. The digger is 10 cm longer than the motorcycle.
a) How long is the digger?
b) How long are the digger and motorcycle combined?

Can you explain these to your grownup?

## Descriptive teaching

Ruth has a toy boat and a toy train.


The boat is 10 cm long.
The train is 7 cm longer than the boat.
a) How long is the train?
b) How long are the boat and train combined?

Can you explain these to your grownup?

## Descriptive doing

Jamal has a toy plane and a toy tractor.
The tractor is 12 cm long.
The plane is 9 cm longer than the tractor.
a) How long is the plane?
b) How long are the tractor and plane combined?

Now try these in your book

## Reflective teaching

Jamal has a popsicle. He measures it when he first receives it, midway through eating it and just before finishing it.
a) Which image shows the popsicle at the start? Explain your answer.
b) What is the difference between the longest and shortest measurements shown?

Discuss these with

## Reflective doing

Ahmed has a popsicle. He measures it when he first receives it, midway through eating it and just before finishing it.
a) Which image shows the popsicle at the start? Explain your answer.

b) What is the difference between the longest and shortest measurements shown?

## Challenge

1a. Buddy and Bob are making ladders out of straws. Buddy's ladder is 30 cm long. Bob's ladder is longer than Buddy's.

When added together, their ladders measure 70 cm long.

How long is Bob's ladder?

1b. Ezra and Bea are building with wooden train tracks. Ezra's track is 20 cm long. Bea's track is shorter than Ezra's.

When added together, their train tracks measure 30 cm long.

How long is Bea's train track?

## Challenge

4a. Nancy and Joy are making beaded bracelets. Nancy's bracelet is 25 cm long. Joy's bracelet is shorter than Nancy's.

When added together, their bracelets measure between 41 cm and 44 cm long.

How long could Joy's bracelet be?

4b. Saffie and Ali are lining up toy cars. Saffie's line is 15 cm long. Ali's line is Ionger than Saffie's.

When added together, their lines of toy cars measure between 51 cm and 54 cm .

How long could Ali's line of toy cars be?

## Challenge

7a. Tia and Abe are making a bridge out of wooden planks. Tia's bridge is 5 m long. Abe's bridge is shorter than Tia's.

When added together, their bridges measure 700 cm long.

How long is Abe's bridge in $\mathbf{m}$ ?

7b. Amby and Una are building a wooden train track. Amby's track is 200 cm long. Una's track is longer than Amby's.

When added together, their tracks measure 8 m long.

How long is Una's train track in cm?

## Reflection Time



Is Astrobee's statement sometimes, always or never true?
Explain your answer.

