

Reasoning and Problem Solving

Step 4: Order Lengths

National Curriculum Objectives:

Mathematics Year 2: (2M1) [Compare and order lengths, mass, volume/capacity and record the results using >, < and =](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Match three items to their lengths when given their order. Lengths in whole cm and m. Same measures (cm or m) numerals only.

Expected Match four items to their lengths when given their order. Lengths in whole cm and m. Some mixed measures (cm and m) numerals and words.

Greater Depth Match four items to their lengths when given their order. Lengths in whole cm and m. Mixed measures (m and cm and >100cm) numerals and words.

Questions 2, 5 and 8 (Problem Solving)

Developing Order three statements use a more/less than symbol involving measures in whole cm and m. Same measures (cm or m) numerals only. Addition of 2 items without exchanging.

Expected Order four statements use a more/less than symbol involving measures in whole cm and m. Some mixed measures (cm and m) numerals and words. Addition of 2 items without exchanging.

Greater Depth Order four statements use a more/less than symbol involving measures in whole cm and m. Mixed measures (m and cm and >100cm) numerals and words. Addition of 2 items with some exchanging.

Questions 3, 6 and 9 (Reasoning)

Developing Explain whether a statement is correct or not when ordering items according to length. One fact and 2 ordered items given.

Expected Explain whether a statement is correct or not when ordering items according to length. One fact and 3 ordered items given.

Greater Depth Explain whether a statement is correct or not when ordering items according to length. Two facts and 3 unordered items given.

More [Year 2 Length and Height](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Order Lengths

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



Match the toy to its length.

Trumpet	56cm
Duck	11cm
Tower	34cm



PS

Order Lengths

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



Match the food to its height.

Sunflower	98cm
Cactus	56cm
Lily	49cm



PS

2a. Here are the lengths of some foods.

Item	Length
loaf	42cm
donut	12cm
bun	20cm

Use the symbol $<$ to order the statements.

loaf

2 buns

donut



PS

2b. Here are the heights of some animals.

Item	Height
elephant	3m
giraffe	6m
gorilla	1m

Use the symbol $>$ to order the statements.

giraffe

gorilla and elephant

elephant



PS

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.



R

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.



R

Order Lengths

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



Match the toy to its length.

Bus	66cm
Helicopter	46cm
Boat	1m 4cm
Scooter	21cm



PS

Order Lengths

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



Match the food to its height.

Pineapple	1m 34cm
Watermelon	27cm
Pumpkin	17cm
Carrot	76cm



PS

5a. Here are the lengths of some toys.

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

Use the symbol $<$ to order the statements.

dolls' house	2 cars
car and toy snake	toy snake



PS

5b. Here are the heights of some items.

Item	Height
desk	61cm
door	1m 50cm
box	30cm

Use the symbol $>$ to order the statements.

desk and box	2 boxes
door	desk



PS

6a. Katie has picked and ordered these flowers.



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

Carla says,

My flower will go last.



Is she correct? Convince me.



R

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.



R

Order Lengths

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



Match the toy to its length.

Palm tree	30m
Sunflower	126cm
Cactus	11m
Pine tree	1m 11cm



PS

Order Lengths

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



Match the vehicle to its length.

Ambulance	164cm
Taxi	98cm
Bus	1m 32cm
Scooter	78cm



PS

8a. Here are the heights of some children.

Name	Height
Katie	85cm
Laura	1m 5cm
Lark	103cm

Use the symbol $<$ to order the statements.

Katie	Katie and Lark
Lark and Laura	Laura



PS

8b. Here are the lengths of some items.

Item	Length
table	154cm
TV	60cm
rug	1m 5cm

Use the symbol $>$ to order the statements.

TV and rug	2 rugs
table	TV



PS

9a. Henry has grown these vegetables.



Mike has grown a potato that 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.



R

9b. Cassie has picked these flowers.



Lily

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.



R

Reasoning and Problem Solving Order Lengths

Developing

- 1a. Trumpet: 34cm, Duck: 11cm, Tower: 56cm
2a. donut < 2 buns < loaf
3a. No because Samantha has an alien that is taller than the one-eyed alien so that might be the tallest alien.

Expected

- 4a. Bus: 1m 4cm, Helicopter: 21cm, Boat: 46cm, Scooter: 66cm.
5a. two cars < toy snake < car and toy snake < dolls' house
6a. No because Katie has a flower that is taller than the sunflower so that might be the tallest flower.

Greater Depth

- 7a. Palm tree: 11m, Sunflower: 126cm, Cactus: 1m 11cm, Pine tree: 30m
8a. Laura < Katie < Katie and Lark < Lark and Laura
9a. Yes because Mike's radish is shorter than Henry's radish and Henry's radish is the shortest of his vegetables.

Reasoning and Problem Solving Order Lengths

Developing

- 1b. Sunflower: 56cm, Cactus: 98cm, Lily: 49cm
2b. giraffe > gorilla and elephant > elephant
3b. Yes because Kyle's starfruit is the shortest of his fruits and Alex's is smaller.

Expected

- 4b. Pineapple: 76cm, Watermelon: 27cm, Pumpkin: 1m 34cm, Carrot: 17cm.
5b. door > desk and box > desk > 2 boxes
6b. No because Zack's car is shorter than Billy's car so Zack has the shortest vehicle.

Greater Depth

- 7b. Ambulance: 1m 32cm, Taxi: 98cm, Bus: 164cm, Scooter: 78cm
8b. 2 rugs > TV and rug > table < TV
9b. No because Cassie has a lily that is taller than her sunflower so it might be taller than Millie's sunflower.