

HOME LEARNING

Year 10 Maths Pack 9

Focus for this week: Entry Level: Compare and order measurements GCSE: Construction using compasses

Essential learning:	<ul style="list-style-type: none">• Compare and order lengths, capacities and weights in the same standard units
Practising:	<ul style="list-style-type: none">• Compare and order lengths, capacities and weights in different standard units
Learning about:	<ul style="list-style-type: none">• Bisect lines and angles
Extension:	<ul style="list-style-type: none">• Construct a triangle using ruler and compasses

Contents:

- Worksheet 1** Compare and order lengths, capacities and weights in the same standard units
- Worksheet 2** Compare and order lengths, capacities and weights in different standard units
- Worksheet 3** Bisect lines
- Worksheet 4** Bisect angles
- Worksheet 5** Construct a triangle using ruler and compasses

Tasks:

- Look at the learning objectives, reflect on what you are already confident with, what you would like to practise and what you would like to learn this week
- Choose 2-3 worksheets to complete this week and email them to Mr. Croft or Mrs. Coleman
- Login to MyMaths and complete MyMaths tasks
- Spend 10 minutes a day on Times Table Rock Stars; Numbots OR Sumdog
- Please email a photo of any worksheets or poster you complete to the email address below.
This will earn you a golden token.

Additional activities:

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If you have queries about this work, please contact Mrs. Coleman at jcoleman@bower-grove.kent.sch.uk

Worksheet 1 Compare and order lengths, capacities and weights in the same standard units

1 Write each list of measures in order, starting with the smallest.

a) 5 mm 15 mm 8 mm 20 mm

b) 50 g 75 g 25 g 57 g

c) 30 ml 23 ml 32 ml 2 ml

d) 18 kg 8 kg 88 kg 80 kg

e) 7 cm 10 cm 4 cm 9 cm

2 In each list, circle the largest measure.

a) 50 cl 5 cl 15 cl 25 cl

b) 80 cm 75 cm 8 cm 88 cm

c) 42 g 24 g 44 g 4 g

d) 30 m 28 m 31 m 3 m

Email completed worksheets to me at jcoleman@bower-grove.kent.sch.uk . Each good attempt earns a golden token.

Worksheet 2 Compare and order lengths, capacities and weights in different standard units

Task 1 Write each list of measures in order starting with the **smallest**.

a) 5 cm, 6 m, 35 mm

b) 400 ml, 30 cl, 0.5 litres

c) 9 kg, 900 g, 0.95 kg

Task 2 For each pair circle the **largest** measure.

a) 3 cm 35 mm

b) 300 ml 2 litres

c) 420 cm 5 m

d) 200 ml 2 cl

e) 28 mm 3 cm

f) 90 cl 2 litres

g) 3 m 250 cm

h) 1500 g 2 kg

i) 100 g 10 kg

j) 0.3 kg 30 g

k) 500 ml 0.6 litres

l) 0.7 kg 800 g

Worksheet 3 Bisect lines

Resources: You will need paper, pencil, compasses and a ruler

Task 1: Go to <https://www.bbc.co.uk/bitesize/articles/zyfb2nb> for an easy to follow tutorial explaining how to bisect lines and angles

Task 2: Draw three lines and bisect them using paper, ruler, pencil and compasses.

Worksheet 4 Bisect angles

Resources: You will need paper, pencil, compasses and a ruler

Task 1: Go to <https://www.bbc.co.uk/bitesize/articles/zyfb2nb> for an easy to follow tutorial explaining how to bisect lines and angles

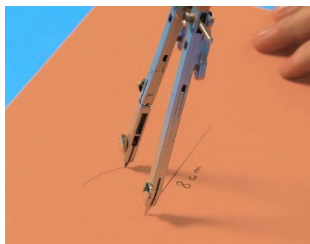
Task 2: Draw three angle and bisect them using paper, ruler, pencil and compasses.

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Worksheet 5 Construct a triangle using ruler and compasses

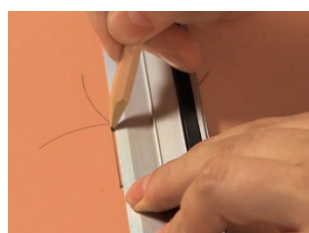
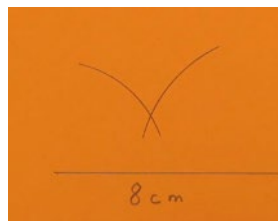
Resources: You will need paper, pencil, compasses and a ruler

Task 1: Follow these instructions to draw a triangle with sides 8cm, 4cm and 5cm:



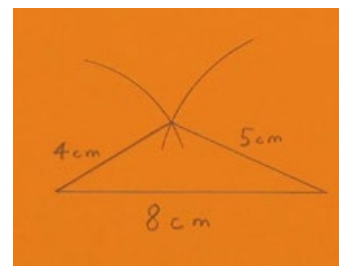
- Step 1: Draw a straight line of the longest length (8cm in this example)
- Step 2: Set the compass width to the smallest length (4cm in this example)
- Step 3: Place the compass on one end of the line and draw an arc (see picture)

- Step 4: Set the compass width to the last length (5cm in this case)
- Step 5: Put the point of the compass on the other end of the line
- Step 6: Draw an arc that crosses the first arc



- Step 7: Use a rule to draw a line from the left end of the line to the point where the arcs cross

- Step 8: Use a ruler to draw the other end of the line to the point where the two arcs cross. Leave the arcs. They show you have drawn the triangle accurately.



Task 2:

Draw at least three more triangles from the table below:

Less challenge (equilateral triangles)	Moderate challenge (isosceles triangles)	More challenging (scalene triangles)
1a) 4cm, 4cm, 4cm	2a) 6cm, 5cm, 5cm	3a) 4cm, 5cm, 6cm
1b) 5cm, 5cm, 5cm	2b) 7cm, 6cm, 6cm	3b) 6cm, 8cm, 10cm
1c) 6cm, 6cm, 6cm	2c) 4cm, 7cm, 7cm	3c) 5cm, 12cm, 13cm

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