Year 7

Home Learning 3

Focus for this week: Measuring lengths: metric and imperial

Essential learning:	• Measure in centimetres more accurately (e.g. 6.1cm)
Practising:	• Measure in metre more accurately (e.g. 1.25 m) • Convert between mm, cm, m and km
Learning about:	• Measuring in inches, feet, yards and miles
Extension:	• Measuring in other imperial measurements

Tasks:

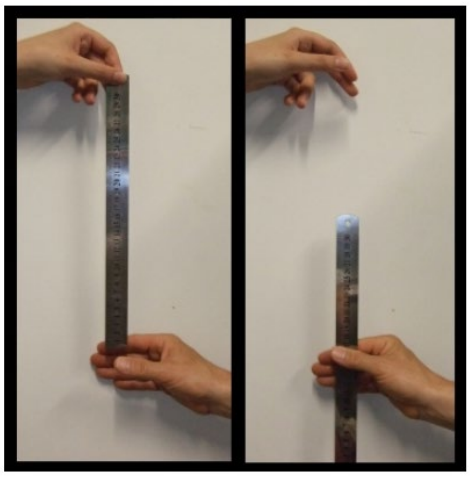
- Choose two objectives (above) to work on this week. Choose one to practise and one to learn.
- Complete at least two worksheets
- Login to MyMaths and complete MyMaths tasks
- Spend 10 minutes a day on Times Table Rock Stars; Numbots OR Sumdog
- Email Mr. Croft (below) if you would like to try another Maths game website (called MangaHigh).
- Please email a photo of any worksheets you complete to the email address below.
  This will earn you a golden token.

Additional activities:

- Measure 4 things in inches
- Find the height of the people in your household. Measure them in feet & inches as well as cm.
- Find five interesting facts in this article: https://www.britannica.com/topic/Imperial-unit
- More challenge: Go to https://nrich.maths.org/5994 for a measurement problem

If you have queries about this work, please contact me at acroft@bower-grove.kent.sch.uk

27/4/20 Maths Worksheet 1: Drawing lines and measuring exactly in cm and m



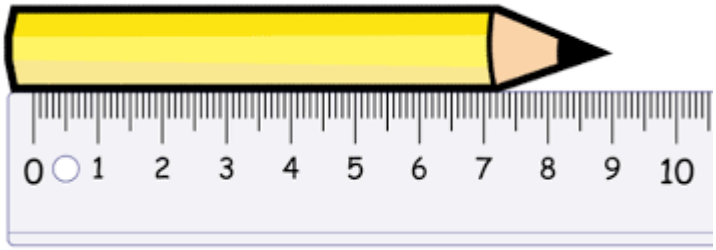
Task 1: Reaction timer (see https://nrich.maths.org/reactiontimer/note for more info)

Ask someone in your household to hold a ruler by the end, above your hand. Open your hand below the ruler and be ready to catch it. The other person will drop the rule without saying when they're going to let it go. Catch the ruler as fast as you can after it's been dropped. The picture (left) shows this experiment being carried out:

Record the level (in centimetres, e.g. 6.4cm) at which you caught the ruler in the table below. Repeat the experiment several times. If you have quick reactions, the ruler will not have travelled far when you catch it. Now swap around and see who has the quickest reactions!

	Name:	Name:
1st try		
2nd try		
3rd try		
4th try		
5th try		

Task 2: Look at the picture. Bob thinks the pencil is 9cm long. What mistake has Bob made?



_____

_____

_____

How long do you think (estimate) the pencil really is?_____cm

Task 3: Drawing lines exactly. *Make sure you have a sharp pencil and a ruler for this activity.*

a) Draw a line that is exactly 4.5cm

b) Draw a line that is exactly 4.7cm

c) Draw a line that is exactly 9.9cm

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

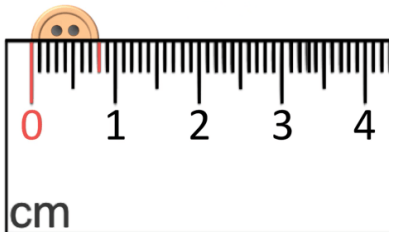
27/4/20 Maths Worksheet 2: Measuring length in cm exactly using decimals and fractions

Task 1: Convince me that the car is exactly 5cm long.

_____

_____

Task 2: This measurement could be described as:



- 8mm
- 0.8cm
- 8 tenths of a centimetre
- $\frac{8}{10}$cm

You can see that each centimetre is divided into 10 equal parts. Each part is one-tenth ($\frac{1}{10}$) of a centimetre (cm).

Match the following measurements

7mm	1.1cm	$1\frac{1}{10}$cm
0.9cm	$9\frac{4}{10}$cm	49mm
9.4cm	4.9cm	94mm
$\frac{3}{10}$cm	$\frac{9}{10}$cm	9mm
$4\frac{9}{10}$cm	3mm	$\frac{7}{10}$cm
11mm	0.7cm	0.3cm

Task 3: Draw the following lines exactly

a) $\frac{9}{10}$cm

b) $4\frac{9}{10}$cm

c) $9\frac{4}{10}$cm

Extension: How long would a line that is $\frac{23}{100}$ of a metre be in centimetres?

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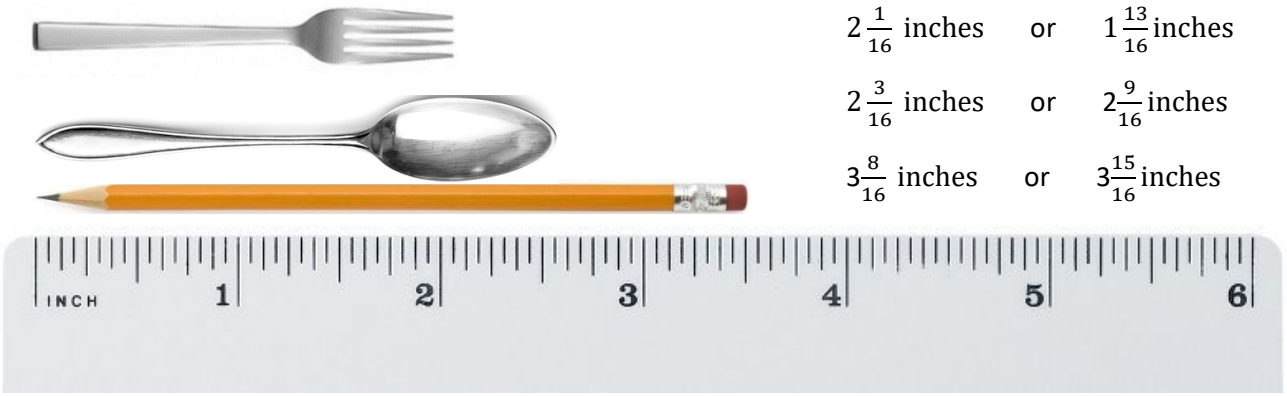
27/4/20 Maths Worksheet 3: Measuring in inches exactly using fractions

Task 1: We are going to measure some things in inches. One inch is a bit bigger than one centimetre. We can write one inch as 1".

See if you can find a ruler that has inches on it? If you can not find one, look for a picture on the internet.

You will notice that inch rulers are divided into 16 equal parts. Each part is a $\frac{1}{16}$

Measure the following items using the inch ruler below (circle the correct answer):

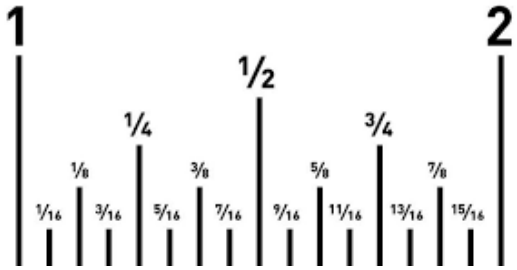


$2\frac{1}{16}$ inches or $1\frac{13}{16}$ inches

$2\frac{3}{16}$ inches or $2\frac{9}{16}$ inches

$3\frac{8}{16}$ inches or $3\frac{15}{16}$ inches

Task 2: This picture shows an inch ruler between 1" and 2". The fractions have been labelled, but someone of the fractions have been given a different name (in the same way friends at school might have a 'nick-name'). Look at the picture and find a different way of saying the following fractions:



$\frac{2}{16} = \frac{1}{8}$ $\frac{4}{16} = -$ $\frac{6}{16} = -$

$\frac{8}{16} = \frac{1}{2}$ $\frac{10}{16} = -$ $\frac{12}{16} = -$

$\frac{14}{16} = -$

Task 3: Measure 5 items using an inch ruler

Name of item	Measurement in inches

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27/4/20 Maths Worksheet 4: Measuring length using metric and imperial measure

Task 1: Complete the wordsearch and find 10 different imperial measurements

P	I	N	T	A	B	Y	A	R	D
I	O	U	N	C	E	Z	S	G	M
F	N	P	O	U	N	D	T	P	I
O	M	C	A	P	S	G	O	O	L
O	I	E	H	Y	G	F	N	I	E
T	N	O	L	L	A	G	E	P	F
F	L	U	I	D	O	U	N	C	E

P _ _ _

Y _ _ _

M _ _ _

O _ _ _ _

I _ _ _

P _ _ _ _

F _ _ _

F _ _ _ _ / O _ _ _ _

S _ _ _ _

G _ _ _ _ _

Task 2: Search for 8 different items that have imperial measurements on them around where you live (which could include whilst out on your daily exercise. Write them in the table below. There are some picture clues that may help you.

Item	Imperial Measurement






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