

Measurement (length)

HERE'S THE MATHS

Your child is learning to convert between units of length to solve problems using decimal notation.

Remember: 1 km = 1 000 m; 1 m = 100 cm; 1 cm = 10 mm. Your child needs practice estimating lengths and actually measuring lengths.

ACTIVITY

What to do

- Look at a car and take turns to complete the table with estimates of the lengths.

You will need:

- tape measure

	Estimate	Actual measurement	Change of units
Length of car			
Diameter of steering wheel			
Height of car door			
Width of number plate			
Height of number plate			
Length of windscreen wiper			
Own choice			

- Take turns to measure the lengths accurately.
- In the final column, change the units, those in metres to centimetres and those in centimetres to millimetres.
- Each person writes two problems using these measurements for their partner to solve.

Variation

- Make estimates and measurements in another setting, e.g. objects in the lounge.

QUESTIONS TO ASK

How many metres in 3 km?

How many centimetres in 5 metres?

Change 3 cm into millimetres.

How many millimetres are there in a kilometre? ($1 \text{ km} = 1\,000\,000 \text{ mm}$)



Year 6 Maths Newsletter 3



Date: _____

Name: _____

MATHS TOPICS

These are the maths topics your child will be working on during the next three weeks:

- Addition and subtraction
- Decimals
- Measurement (length)

KEY MATHEMATICAL IDEAS

During these three weeks your child will be learning to:

- add and subtract large numbers using formal written methods
- multiply decimals by whole numbers including in practical contexts
- convert between units of length to solve problems using decimal notation.

TIPS FOR GOOD HOMEWORK HABITS

Turn off the TV and computer. Choose a quiet place, preferably sitting at a table, where your child can work comfortably without disturbance.

Addition and subtraction

HERE'S THE MATHS

Your child is practising and consolidating addition and subtraction of large numbers using formal written methods. It is important to set out the calculation clearly so that the columns are lined up properly and so carrying figures are not missed. Estimating answers before working out calculations is a good way to check that answers are of the correct magnitude.

ACTIVITY

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8

What to do

- Use this table to generate multi-digit numbers from words, e.g. CARPET = 319 752.
- Each choose a seven-letter word and a six-letter word and write numbers from them.
- Subtract the 6-digit number from the 7-digit one.
- Check each other's answers.
- Repeat with new words.
- Continue for 10 minutes.

You will need:

- pencil and paper

Variation

- To simplify, use six-letter and five-letter words.

QUESTIONS TO ASK

When carrying out formal addition and subtraction, it is important to estimate.

Estimate the answers to these calculations.

$$541\,098 + 460\,231 \text{ (1 000 000)}$$

$$345\,150 - 123\,189 \text{ (230 000)}$$

$$142\,987 + 653\,761 \text{ (790 000)}$$

$$675\,987 \cdot 34 + 321\,659 \cdot 65 \text{ (1 000 000)}$$

$$761\,324 \cdot 67 - 524\,987 \cdot 32 \text{ (240 000)}$$

Decimals

HERE'S THE MATHS

Your child is learning to multiply decimals by whole numbers, starting with simple cases, such as $0.4 \times 2 = 0.8$, and in practical contexts such as measures and money. The digits move one place to the left. Children need to remember that amounts of money are always written with 2 decimal places, e.g. £0.30 not £0.3. They are also learning about thousandths.

ACTIVITY

What to do

- Take turns to roll one dice and take out that number of coins, e.g. a roll of 3 could be 30p ($3 \times 10p$), 40p ($20p + (2 \times 10p)$), 60p ($3 \times 20p$), etc.
- Change the value to a decimal, e.g. 60p becomes £0.60.
- Roll both dice and add the two values, e.g. 3 and 5, sum is 8.
- Multiply the value of the chosen coins by the dice total, e.g. $8 \times £0.60 = £4.80$.
- Record the total.
- Play for 10 minutes. The winner is the person with the larger sum of money.

You will need:

- collection of 10p and 20p coins worth 90p in a bag or box (at least six coins) (use pieces of paper with the amounts written on them if you do not have change)
- two 1–6 dice

Variation

- Increase the number of 10p and 20p coins (to at least 12 coins) and roll both dice to decide the number to choose so that the calculations involve bigger numbers.

QUESTIONS TO ASK

What is the 6 worth in 23.46?
(6 thousandths)

Tell me a number that comes between 6.74 and 6.75.

Tell me the 0.4 times table.

What is 4.3×6 ?

What is 9×0.2 ?