Year 6 Maths Home Learning

Week six includes:

- 5 a day – one for each school day (set a timer for between 3 and 5 minutes)
- Maths I do you do – read the measure PowerPoint (40 minutes)
- Practice questions (60 minutes)
- Evidence questions (60 minutes)
- Problem solving questions (as long as it takes!)
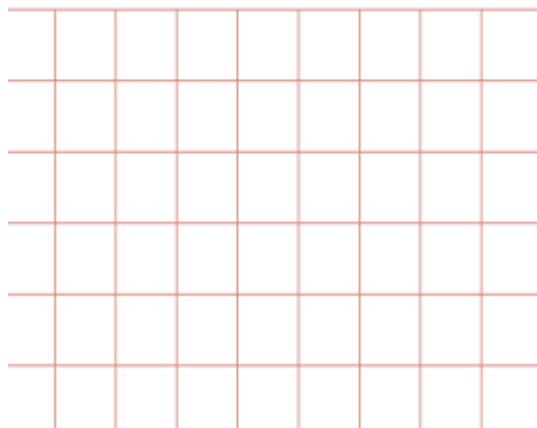
5 A Day   Week 6   Day 1

10 x 420

_____ = 873 + 427

234 x 5

16.72 + 34.272

4/5 - 7/15

5 A Day   Week 6   Day 2

```
      4 3 6 2
  ×       3 7
  _____
```

30% of 500

) 7362 ÷ 9

3/4 × 7

```
1 5 | 5 3 4 6
```

5 A Day   Week 6   Day 3

563 x 5

0.8 x 1000

1/3 of 120

_____ = 7832 - 437

12.2 ÷ 10

```
    8 4 6
×     1 7
```

15% x 1000

1/3 ÷ 4

3/5 x 150

```
1 8 ) 7 1 3 5
```

5 A Day   Week 6   Day 5

30% of 700

6 – 3.45

178239 – 46758

4.005 + 7.89

763 × 5

Practice questions
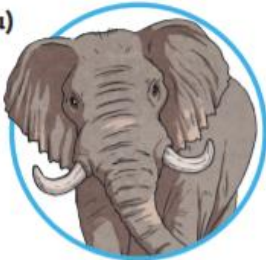
Give the most appropriate unit
of measurement:

- height of a door _____

- volume of water in a glass _____

- length of a pencil point _____

- mass of a person _____

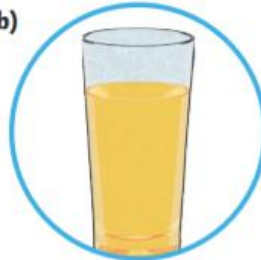- length of a reading book _____

- mass of a rubber _____

Tick the best estimation for each question.

a)
- ⭕ 5kg
- ⭕ 5 tonnes
- ⭕ 500g
- ⭕ 0.05 tonnes

b)
- ⭕ 2ml
- ⭕ 2l
- ⭕ 20l
- ⭕ 0.2l

c)
- ⭕ 18m
- ⭕ 1.8m

Use the conversion charts to help you convert between the different units of measurement.

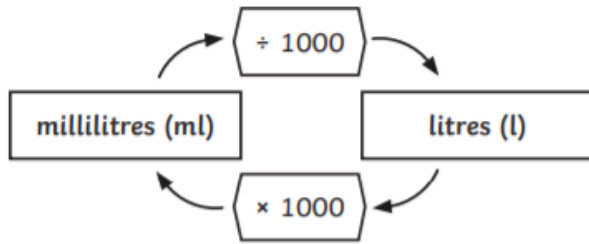÷ 1000 → | ÷ 1000 →

| grams (g) | kilograms (kg) | tonnes |

× 1000 | × 1000
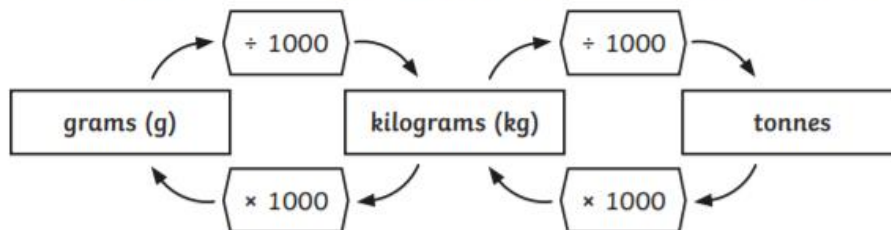
1)

g	kg
1500	
	0.8
3010	
	2.95

2)

kg	tonnes
	7
1500	
	0.9
4080	

3)

ml	l
	7.5
950	
	0.065
1990	

$\div 1000$

millilitres (ml) → litres (l)

$\times 1000$

$\div 10$ $\div 100$ $\div 1000$

millimetres (mm) → centimetres (cm) → metres (m) → kilometres (km)

$\times 10$ $\times 100$ $\times 1000$
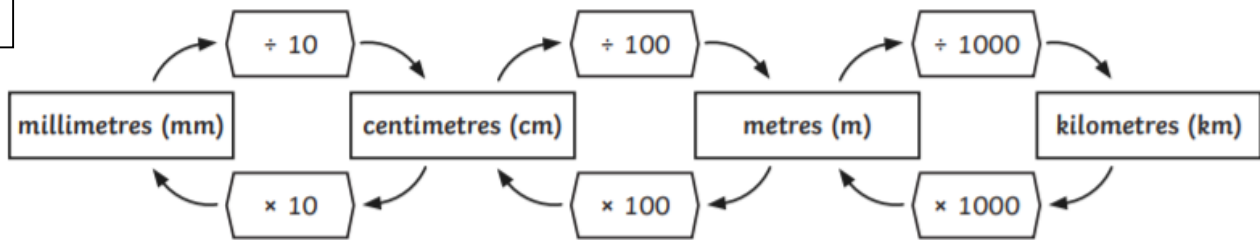
4)

mm	cm	m	km
	20 000		
		412	
			1.1

Mr Smith needs to fill buckets of water. A large bucket holds 6 litres and a small bucket holds 4 litres. If a jug holds 250 ml and a bottle holds 500 ml suggest some ways of using the jug and bottle to fill the buckets.

Evidence questions

An average walking speed is 85m a minute. Daniel takes 30 mins to walk to school every day.

The distance Daniel currently walks to school is about $\frac{1}{9}$ of the distance between his primary school and his brother's secondary school.

Estimate how far Daniel lives from his brother's school.

If the average walking speed is 85m a minute, estimate how far you could walk if you walked continuously for:

a) 6 hours _____

b) A whole day _____

c) A week _____

d) A year _____

True or false? Correct any mistakes.

a) 1.7km = 1.700km = 1700m _____

b) 10 001g < 10.1kg > 0.1 tonnes _____

Use the statements to match each volume of orange squash given below to each of the bottles.

Volumes:

0.11l	0.25l
0.9l	775ml
150ml	

A Contains more than bottle B but less than Bottle C.

B Contains between 0.1 and 0.2l.

C Contains 0.025l more than $\frac{3}{4}$ l.

D Contains a lower volume of orange squash than Bottle B.

E Contains more than bottle C.

ARE 5

A teacher is buying pencils for the school.

Each pencil has a mass of 2.35g.
There are 38 pencils in each box.
The teacher decides to buy 30 boxes
of pencils for the school.

Give the total mass of the pencils
she has bought, in kilograms.

ARE 6

Finlay has a piece of string which measures
0.9m. He cuts off a piece measuring 15cm and
then cuts the remaining string into three equal
pieces. How long is each piece?

ARE 7

Mo cycles 45 miles over the course of 3
days.

On day 1, he cycles 16 km.

On day 2, he cycles 10 miles further than
he did on day 1

How far does he cycle on day 3?

Give your answer in miles and in
kilometres.

The distance between Cardiff and London is 240 km.

A car is travelling at 60 mph.

How long will it take them to get to London from Cardiff?

Chen, Megan and Sam have parcels. Megan's parcel weighs 1.2kg and Chen's parcel is 1500g and Sam's parcel is half the weight of Megan's parcel. Write down some other statements about the parcels. How much heavier is Chen's parcel than Megan's?

A square has the perimeter of 12 cm. When 4 squares are put together, the perimeter of the new shape can be calculated. For
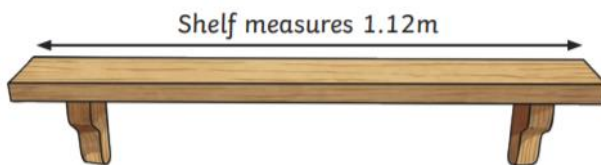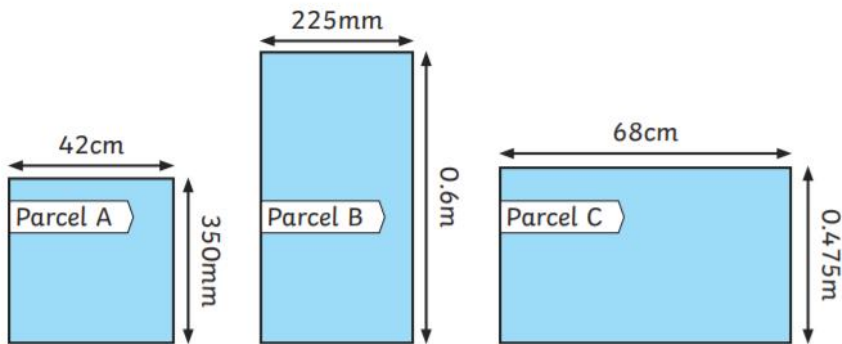
example:

 What arrangements will give the maximum perimeter?
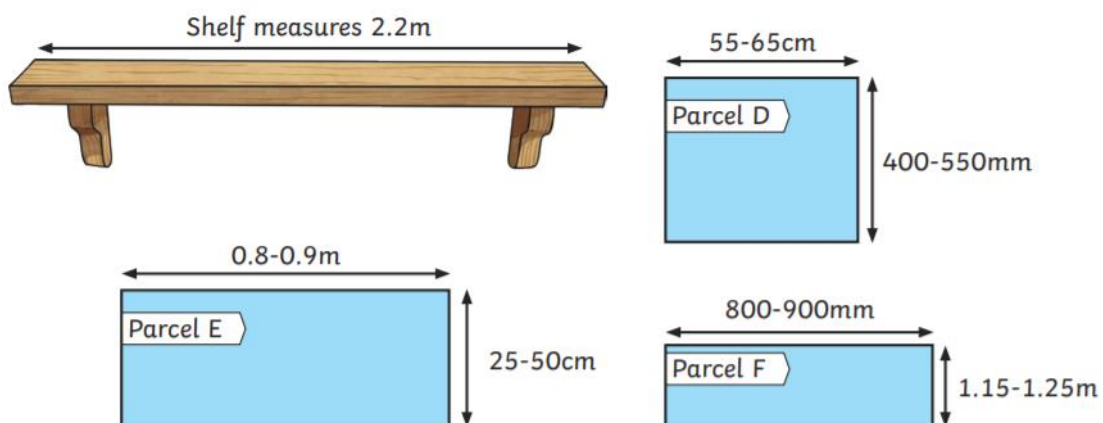
Problem solving challenge

Patsy, the postal worker, is arranging some parcels on the shelves in the post office.

Parcel A — 42cm (width), 350mm (height)

Parcel B — 225mm (width), 0.6m (height)

Parcel C — 68cm (width), 0.475m (height)

Shelf measures 1.12m

1) How could she arrange the three parcels so that they sit on the shelf with no gaps?
(Think about turning the parcels round so they could fit.)

_____

_____

2) How could Patsy fit the same parcels on a shelf which measures 1.05m?

3) Patsy receives three more parcels. When placed on the shelf below, there are no gaps between them.

Shelf measures 2.2m

Parcel D — 55-65cm (width), 400-550mm (height)

Parcel E — 0.8-0.9m (width), 25-50cm (height)

Parcel F — 800-900mm (width), 1.15-1.25m (height)

Give the possible dimensions for each parcel so that all three parcels can be arranged on the shelf with no gaps. Find three different possible answers.

_____

_____

_____