

## Day 1: Use negative numbers in context of temperature

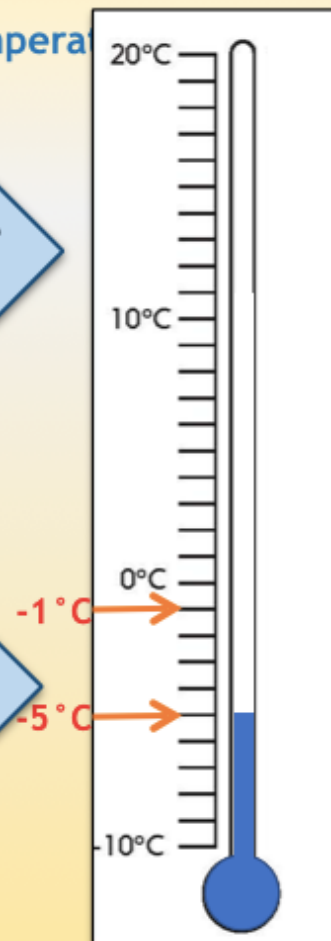
Watch this video to help

<https://www.bbc.co.uk/bitesize/topics/znwj6sg/articles/zxthnbk>



Numbers more than 0 are called **positive numbers**.

Numbers less than 0 are called **negative numbers**.

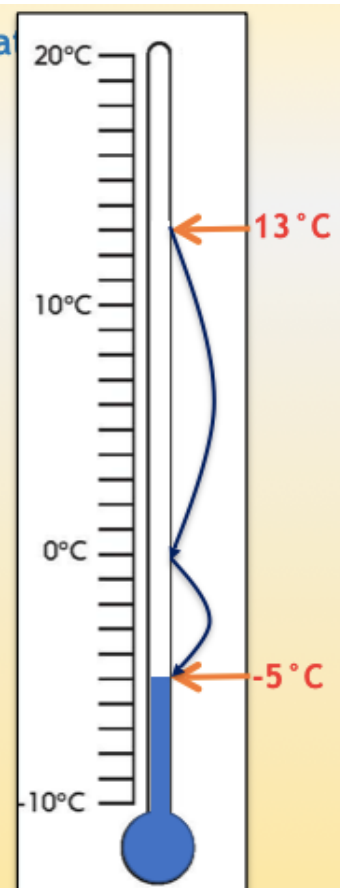


## Day 1: Use negative numbers in context of temperature

On another day it was **13°C**.  
Overnight it **fell** to **-5°C**.  
What is the **difference** and the **change** in temperature?

The difference between 13 and 0 is 13; then between 0 and -5 another 5.

The total **difference** is 18, with a **change** of -18.



# Temperature Sheet 1

Mark the following temperatures on the thermometer: 15°C

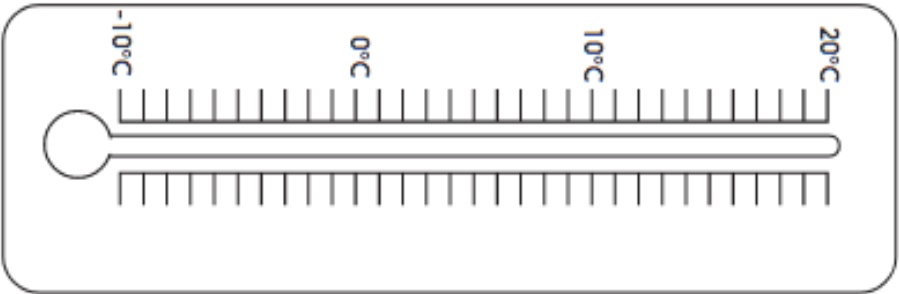
- 1°C
- 9°C
- 5°C
- 7°C
- 8°C

Day	Maximum day temperature	Minimum night temperature
Monday	5°C	-1°C
Tuesday	7°C	-2°C
Wednesday	4°C	-3°C
Thursday	2°C	-5°C
Friday	1°C	-4°C

Was the night colder on Monday or Tuesday?  
Which was the coldest night?  
Which was the mildest night?  
How much colder was it during the day on Thursday than Monday?

## Challenge

Which day had a temperature drop of 5°C?





Day 2: Place negative numbers on a line. Order positive and negative numbers.

Numbers more than 0 are called **positive numbers**.

Numbers less than 0 are called **negative numbers**.

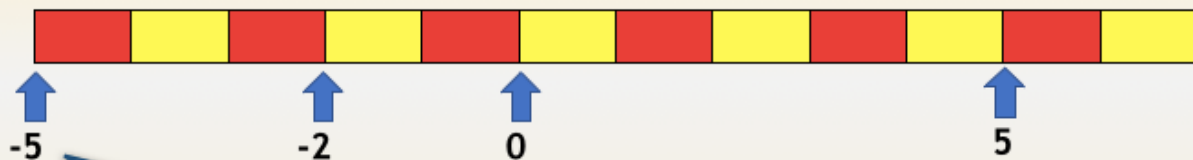


Let's count down from 5  
in 1s.  
5, 4, 3, 2, 1, 0.

Where should we mark  
**-2** on the counting stick?

Where should we mark  
**-4** on the counting stick?

Day 2: Place negative numbers on a line. Order positive and negative numbers.



We can use the counting stick horizontally, starting with minus 5 on the left. Let's count on in 1s to 5, then back again...

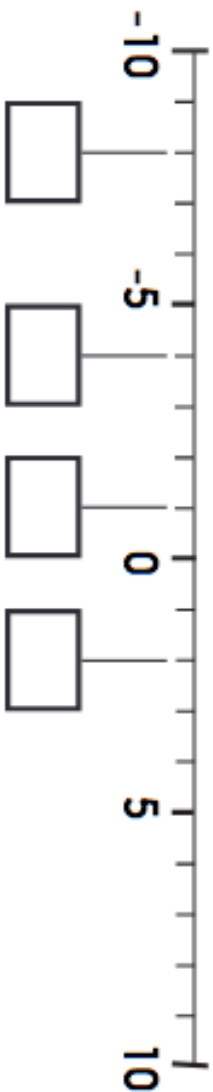
Where should we mark  
**0** on the counting stick?

Where should we mark  
**-2** on the counting stick?

# Positive and negative numbers

## Sheet 1

1. Write the missing numbers in the boxes.



2. Write the number that goes between the numbers.

-2  0

-10  -8

-1  1

-6  -4

3. Write  $<$  or  $>$  between each pair of numbers.

-4    4    3    -1    -5    -2    -10    -6    3    -3    -8    2    0    -7

4. Write each group of numbers in order, smallest first.

-2, 2, 0

4, -1, 6

-10, 3, -5

4, -3, -1

-5, -9, -2

3, 0, -6

### Challenge

The year this year is \_\_\_\_\_.  
What year was it 2050 years ago?



## Converting cm and m

### Sheet 1

Convert the measurements to complete the tables:

**Table 1**

cm	m and cm	m
100 cm	1 m 0 cm	1 m
50 cm	0 m 50 cm	0.5 m
	2 m 0 cm	2 m
15 cm		0.15 m
	0 m 25 cm	0.25 m
320 cm	3 m 20 cm	

**Table 2**

cm	m and cm	m
	0 m 10 cm	0.1 m
575 cm		5.75 m
60 cm	0 m 60 cm	
	2 m 4 cm	
88 cm		
		4.1 m

**Table 3**

cm	m and cm	m
603 cm		
	0 m 19 cm	
		9.26 m
		0.34 m
	0 m 7 cm	
721 cm		



Day 2: Measure in centimetres and millimetres; Convert from millimetres to centimetres.

Thursday

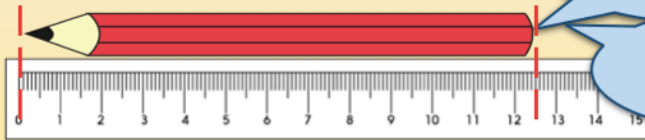


Look at these pencils.  
What unit of measurement could we use to measure these?

Using millimetres will give a more accurate measurement, so helping us to tell between pencils that are the same whole number of centimetres.

We need to line the end of the pencil up with 0 on the ruler.

How long is the pencil in millimetres?



Watch this video for more help:

<https://www.bbc.co.uk/bitesize/clips/zvsvcdm>

Day 2: Measure in centimetres and millimetres; Convert from millimetres to centimetres.

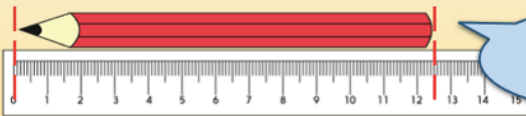
What is the pencil's length in centimetres? Remember that  $1\text{cm} = 10\text{mm}$ .

We need to divide 125 by 10 by moving each digit one place to the right.

125mm  
12.5cm

We need to line the end of the pencil up with 0 on the ruler.

How long is the pencil in millimetres?



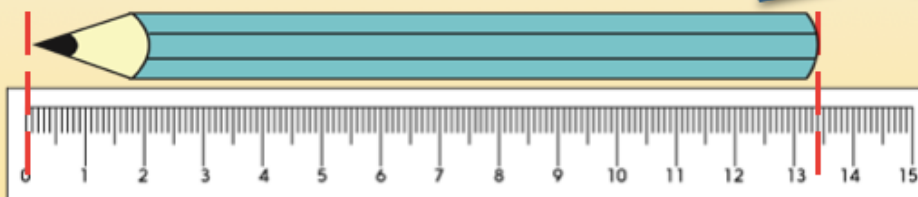
Day 2: Measure in centimetres and millimetres; Convert from millimetres to centimetres.

How long is the pencil in millimetres?

What is the pencil's length in centimetres? Remember that  $1\text{cm} = 10\text{mm}$ .

134mm  
13.4cm

We need to line the end of the pencil up with 0 on the ruler.



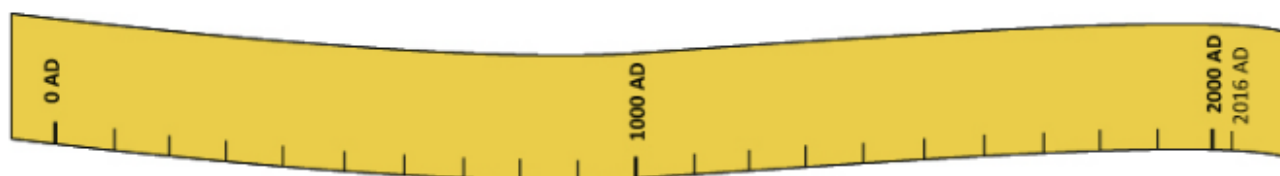
Measure these lines. Write the measurements underneath in mm and then in cm and mm, e.g. 45mm = 4cm 5mm.





## Timeline

1. Work together to make a timeline from 0 to the current year. Each year will be represented by one millimetre. Work out how long the line needs to be.
2. Mark and label each century and each millennium. What length will represent a century? And a millennium?  
You can mark (but not label) each decade if you wish. What length will represent a decade?



3. Mark on the year that you were born. What length represents your age on the timeline?
4. Choose some other dates to mark on the line. These could be:
  - Dates of events you have learnt about in history lessons.
  - Years of interesting inventions, e.g. the bicycle, the car, the computer, the internet, mobile phone...etc.
  - Important dates in history, e.g. year the first person stood on the moon, start and end of World Wars I and II, the year Vikings started invading Britain, the Great Fire of London, the year Shakespeare was born, the year of the London Olympics, or whatever events you find interesting from the past. Carry out some research to help you online or using books.
  - Years that are important for you, your friends, your school, your family or your religion.

It's entirely up to you! If you like, you could extend your timeline to before 0, to 1000BC for example. Did your research uncover any surprises?

Ask some interesting questions, e.g. how long have women been able to vote in the UK?

How old is your school? How long have people played football in England? The choice is yours!

Compare your timeline with that of another pair/group. Which parts of the timeline have more information than others? Why do you think that this is?

Use the next page to do this activity.  
You will need a ruler for this activity.





Time line activity