Here are some links to websites that have videos to support your child's learning in Maths. If you are struggling to find time to sit down with them, they could watch and make notes independently. These are not necessarily linked to the current topic but are still useful tools for learning. They can also be used as additional learning if needed.
https://www.bbc.co.uk/bitesize/subjects/z826n39
https://www.thenational.academy/online-classroom/year-4/maths#subjects

Statistics

Task 1
- **Line graphs**

A line graph is used to display information which changes over time. It is plotted on a graph as a series of points joined with straight lines. We call this information/data 'continuous data' because the data continues to change over time. It's important to remember that the values we read off between actual measurements are only estimates.

Examples of data displayed in a line graph:
- Measurement of temperature over a period of time
- Measurement of something growing – e.g. a plant or flower
- Number of ice creams sold over a period of time

The different parts of a line graph:

- The Y-Axis - In a line graph, there are two axes to represent two different types of data. The Y-axis is vertical (upwards). This is typically the axis that shows a measurement, it always starts at 0. It's important that all measurements are split equally down the axis.

- The X-Axis - The X-axis is the horizontal (across/flat) line that often represents the names, dates or times being measured in the line graph.

- The Title - This is the first thing a reader will see when they look at your graph. It needs to be short, to the point and answer exactly what the graph is about. A title for the school lunch graph could be *'Number of hot school lunches sold p/day: From the 10th of February to 10th of March'*.

- The Legend - This is vital for showing the reader what each line means. Write a short sentence explaining each axis, e.g. *'Number of Lunches sold (in hundredths)'* for the Y-axis and *'Date'* for the X-Axis.

Vocabulary:

- *Discrete data – can only take certain values, for example – the number of children in a class (we can't have half a student!)*

- *Continuous data – data that can be measured that changes over time, for example – a person's height.*
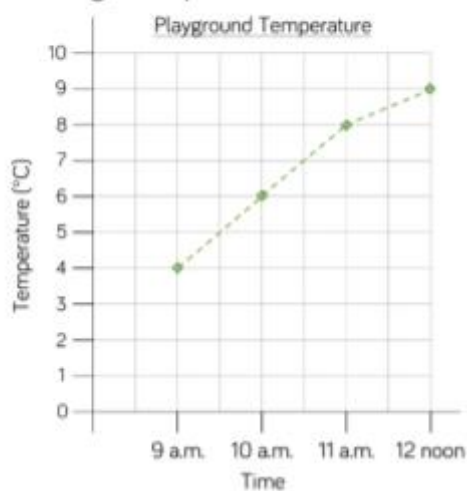
Here is an example of a line graph:

Here is a line graph showing a sunflower's growth. It was planted on Saturday 30th July and its height was measured every 2 days.
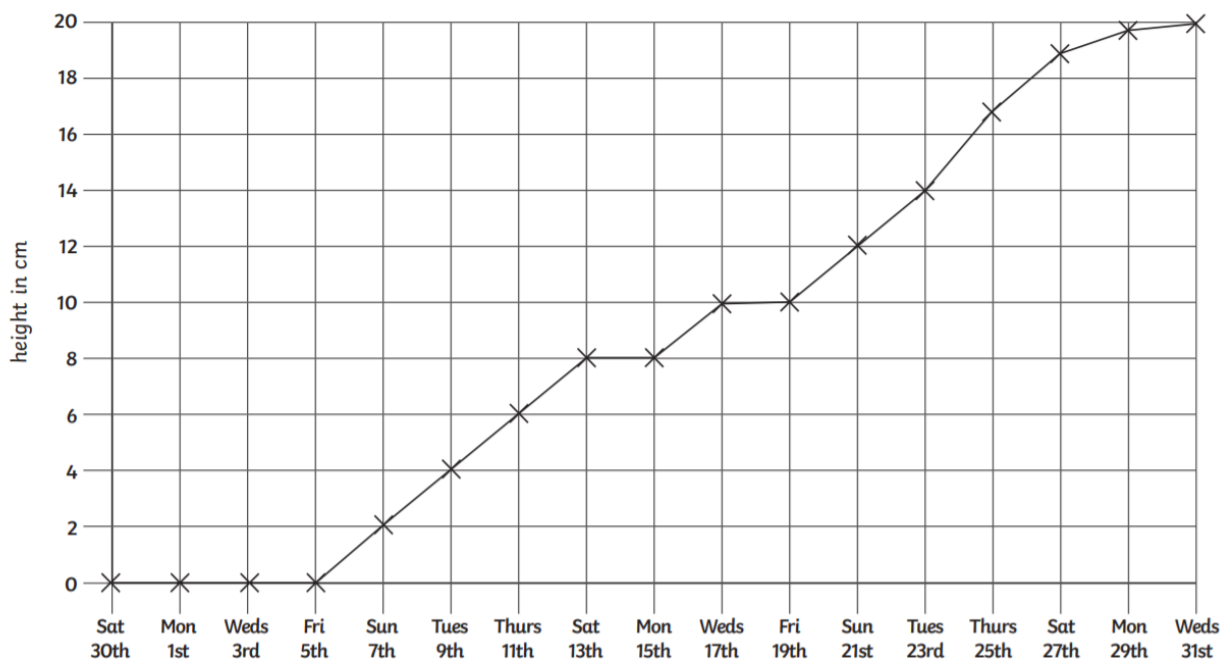
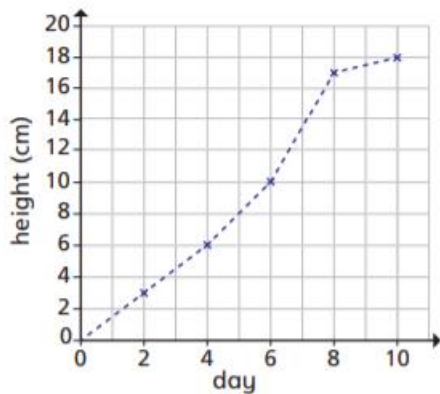**Have a go at interpreting these line graphs and answering the questions:**

The graph shows the temperature in the playground during a morning in April.

The temperature at 9 a.m. is _____ degrees.

The warmest time of the morning is _____.

This line graph shows the growth of some cress over 10 days

a) How tall was the cress on Day 2?

b) On what day did the cress reach 10 cm?

c) Estimate the height of the cress on Day 5

d) Estimate when the cress will reach a height of 14 cm.

e) Between which two consecutive days did the cress grow the most?

Task 2

- **Line graphs**

Follow these instructions to draw a line graph in your book to represent this data about the growth of a plant:

Class 4 grew a plant. They measured the height of the plant every week for 6 weeks.
The table shows the height of the plant each week.

| Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
4 cm	7 cm	9 cm	12 cm	14 cm	17 cm

Create a line graph to represent this information.
What scale would you use on the x and y axes?
Between which two weeks did the plant reach a height of 10 cm?

- The general rule is that time goes along the horizontal axis – space out the weeks equally along the x axis (the horizontal axis).
- Look at the highest measurement and make sure that the y axis (the vertical axis) goes up as high as this number.
- Make sure that there are an equal number of squares in between each number on the y axis.
- Make sure that the y axis starts at 0.
- Make sure that are an equal number of squares between each number.
- Look at the measurement taken after each week and plot these points on the graph by marking them with an x.
- Now join all the xs with straight lines drawn with a ruler.

Task 3

- **Line graphs**

This graph shows the growth of a plant over 6 months.
Write 5 questions that you could ask about the data in this graph.
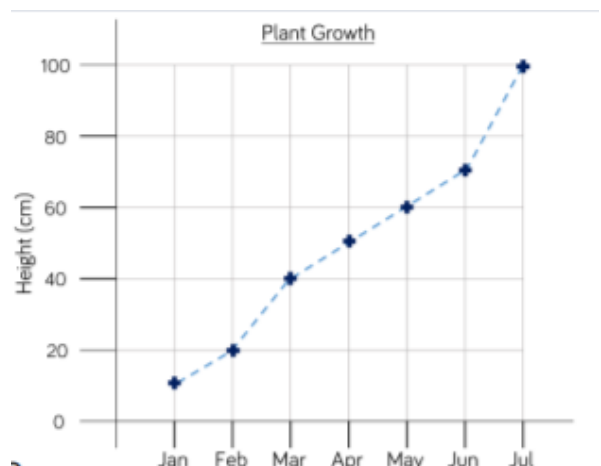
Task 4

- **Line graphs**

Using the instructions in task 2 as a reference, have a go at drawing a line graph for the data in these tables:

You will need to use a different colour for each line and create a key to show which colour shows which data.

The table shows the temperature outside on Monday.

Time	09:00	10:00	11:00	12:00	13:00	14:00	15:00
Temperature (°C)	14	16	20	26	24	20	18

a) Use the information in the table to draw a line graph.

b) On Tuesday, the following temperatures were recorded.

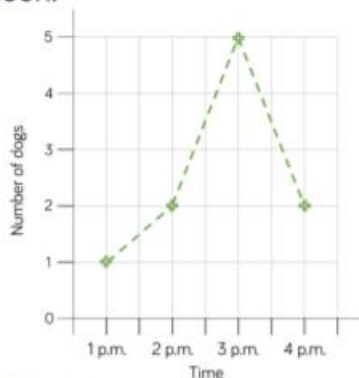| Time	09:00	10:00	11:00	12:00	13:00	14:00	15:00
Temperature (°C)	13	16	21	22	22	19	17

Add the new information to your line graph using a different colour and complete a key.

c) At what time was it hotter on Tuesday than on Monday?

Task 5

- **Reasoning and problem solving**

Tommy created a line graph to show the number of dogs walking in the park one afternoon.
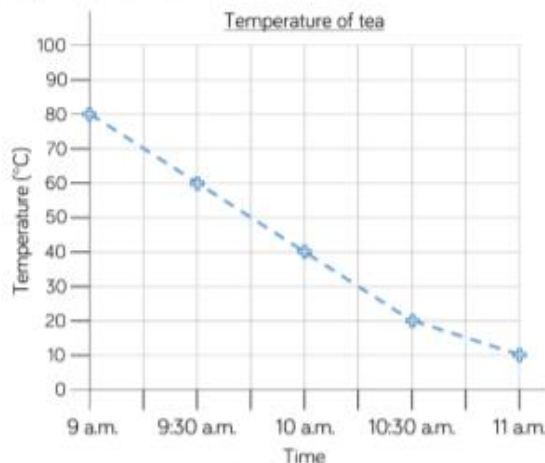

Tommy says,

At half past one there are 1.5 dogs in the park.

Why is Tommy incorrect?

What would be a better way of presenting this data?

Eva measured the temperature of a cup of tea every 30 minutes for 2 hours. The graph shows Eva's results.
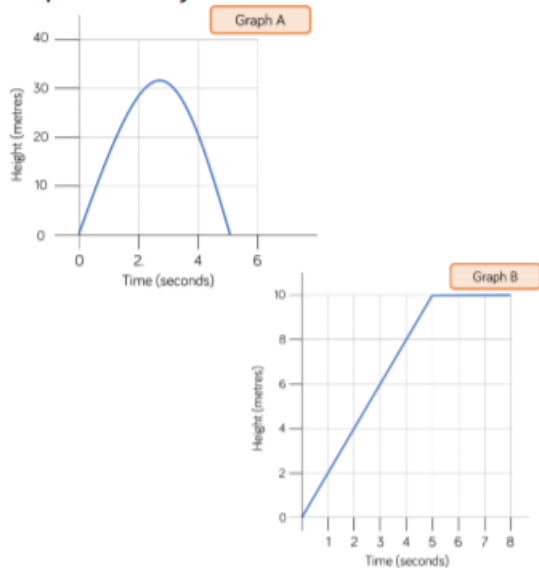

Eva says,

In the first 45 minutes the temperature of the tea had dropped by 20 degrees.

Do you agree with Eva? Explain why.

Jack launched a toy rocket into the sky.
After 5 seconds the rocket fell to the ground.
Which graph shows this?
Explain how you know.

Graph A

Graph B

Make up your own story for the other graph.