

just do it.

<u>Maths: Week One</u>

Tables and Line Graphs

I can interpret and construct line graphs and tables (Theme: Creatures of the Deep)



Maths warm ups



If **60** is the answer, What could be the question? (e.g. $120 \div 2$, or 59 + 1) Come up with lots of questions, see if you can include $+ - x \div$



Line Graphs: a recap

Line graphs are a way of representing data that changes, over time or distance for example.



Here is a good (ice cream!) example. Notice it has:

- A title

2

- Labels on both axis
- (Numbers of Ice Creams Sold and Days of the Week)
- **Regular intervals** (the same amount of space between

numbers on the axis).

Check out 'Line Graphs – Primary' by corbettmaths on YouTube for a good demo and more help.



Line Graphs - Primary corbettmaths + 1.9K views + 1 year ago

This video explains what a line graph is and goes the questions. Ideal for Key Stage 2 (SATs) students ...



If you don't have squared paper at home, just use a ruler to do your best to stay neat and keep everything in line!

Tables: a recap

Tables are a useful way of collecting and recording data.

We can use the data from tables to create our line graphs with.

For example: this is a table with the information from the ice cream graph:

<u>Ice</u>	Day	Sales	
	Monday	9	
<u>cream</u>	Tuesday	2	
sales	Wednesday	5	
<u>in a</u> week	Thursday	3	
	Friday	7	
	Saturday	13	
	Sunday	8	

So we can see that Tuesday was the quietest day, with ice cream sales of 2. Saturday was busy!

When drawing a line graph, you can also use the table to see how big your axis need to be.

We can see the most ice creams sold on any day was 13, so there's no need to draw a 'y' axis that goes all the way to up to 100!



Ice-Cream Sales in a Week

Fishing for queenies



One of the most famous 'creatures of the deep' around the Isle of Man are Queen Scallops (a.k.a. queenies!). It is only legal to fish for them for certain months each year. The Manx Ranger is a fishing boat from Peel. Here's how many queenies she caught in 2016!

Tonnes of queen scallops caught by the Manx Ranger in 2016



 In which month of the season did the boat catch the least?
 What is the difference between the number of queenies caught in August and September?

3. In what months do you think the queenie fishing season officially began and ended in 2016?

4. Use the information in this line graph to draw a table.

5. How many tonnes of scallops did the Manx Ranger catch in 2016 altogether?

Seal pups at the Calf!



Grey seals come from all over the Irish Sea to give birth at the Calf of Man every autumn. A 6-week survey of new births showed there were **172** pups born in 2017 and **222** in 2018.



Which colour line on the graph represents 2017 and 2018? How do you know?
 In which year were there more births in Week 6 than there were in Week 1?
 How many weeks did it take to reach more than 100 births in a) 2017 and b)2018?



Moon Jellyfish are very common all around the Isle of Man, they float near the surface and are not harmful to people. Did you know they have no brain? They can live up to 40 years old, but when they die they often wash up on the beach. The table shows the number of Moon Jellyfish washed up on two different Manx beaches in September, October and December:

Beach	No. Jellyfish	No. Jellyfish	No. Jellyfish
	September	October	November
Fenella	20	80	60
Glen Maye	10	50	40

1. Can you draw a line graph for this table? You can put both beaches on the same graph (use a different colour for each beach, like in the seal pup graph!). Make sure your graph is labelled, and use a ruler to keep everything in line!

The Giants of the Irish Sea	Basking sharks are the second largest fish in the world. They can grow to over 10 metres long and weigh 7 tonnes, but they are gentle giants. They come	Age of shark (years) 0 (born) 4 10 13	Length of shark (m) 2 4 6 8	nark (years) 9 & 0	<u>Graph a</u>	<u>about sharks</u>
	in summer to feed on tiny plankton. The table shows some data of how big a basking shark is when it is born, and how much it grows as it gets older.	The table above is correct. But the line graph is a bit rubbish! 1. What mistakes can you find on the line graph? 2. Can you use the table to draw a better line graph? Does your line look different from this one?		4 Fength of sh	1 2 4 5 Age of s	6 7 8 9 10 11 12 13 shark (metres)
Port St Mary lifeboat 1. Match the corre	the situations/pictures with ct graph. How do you know?	Make yo We are ve Minke Wh But the n	ery lucky to so ales off our co	p hs! metimes see past! s I've put in	YouTube this	Watch: 'Minke Whale Breaches off Scottish Coast'



table is wrong. Watch the video on YouTube and correct the red numbers!

Time in video	Jumps out of the water	Total
0-20 seconds	2	2
20-40 secs	+4 more	6
40-60 secs	+1 more	7



1. Once you have watched the video and corrected the red numbers, draw your own graph of Minke Whale jumps using your table. Remember it is the 'Total' jumps column that you will put on the graph. Your line should keep going up! 2. Find another YouTube clip that you could make into a table/line graph. 3. Or... create something at home that you can make into a graph! For example... how many people walk past the window? Or do sit ups for 3 minutes and ask someone to count how many you do each minute! Did you do less in the 3rd minute?