Welcome to the Maths Department

Welcome to Gordon's School
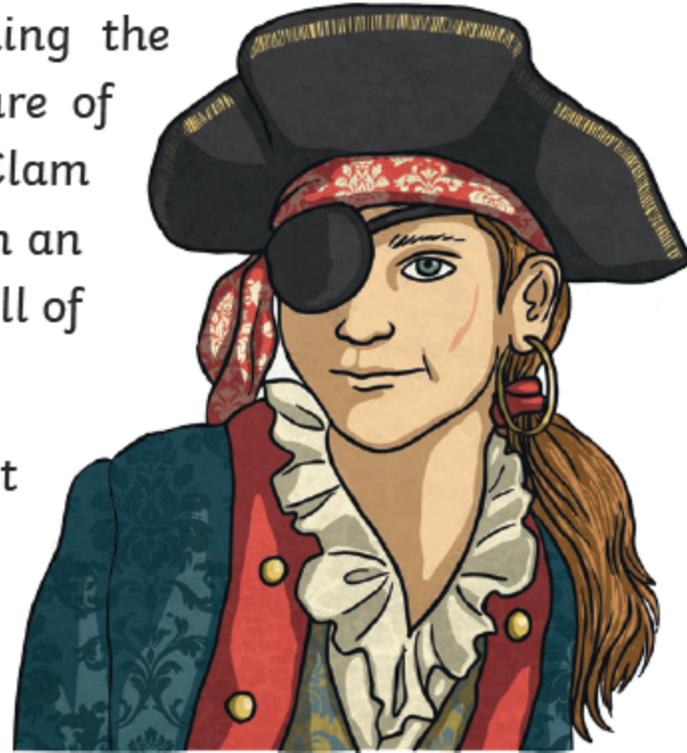
Puzzles and problem solving

- As an introduction to Gordon's Maths department please try the challenge set out over the next few slides.

- You will need a pen/pencil, some paper and a ruler.

- Each problem leads to a clue to find the buried treasure.

- Use numeracy skills and mathematical reasoning to help you solve the clues.

- If you have access to a printer you can print out the following slides but it is not essential.

- Piece together all the clues to reveal the location of the treasure.

The Mystery of the Missing Pirate Treasure

The pirates of the Jolly Jack have been searching the Caribbean for months looking for the lost treasure of the Crusty Clam. Legend has it that the Crusty Clam was damaged in a terrible storm and washed up on an island. In its hold was said to be a treasure chest full of gold, jewels and gems.

The Jolly Jack's captain, Olly Eyepatch, has thought of nothing but finding the lost treasure of the Crusty Clam. She has spent weeks searching through old pirate books and maps trying to find out which island the legendary treasure is buried on.

Can you help Olly Eyepatch and her pirate crew to solve the clues and find out which island the legendary treasure is buried on?

Good luck!

You will need this information later on to locate the treasure

Location	Highest point above sea level	Population	Distance	Location of the island's treasure caves
Albatross Cliffs Island	220m	17 246	251 miles	north
Barnacle Beach Island	575m	82 105	164 miles	south-west
Cutlass Creek Island	8m	6504	25 miles	north-east
Deserted Island	22m	19 995	39 miles	south-west
Fenny Bank Island	3m	11 785	156 miles	north-east
Grotto Island	314m	22 700	264 miles	east
Golden Ghost Island	307m	1687	189 miles	south-west
Helter-Skelter Island	689m	8452	65 miles	west
Kelpie Bay Island	64m	21 564	100 miles	south-east
Limpet Lookout Island	192m	8658	36 miles	south-west
Mermaid Mile Island	60m	1562	8 miles	north-west
Poison Reef Island	1m	12 092	154 miles	south
Ring of Rocks Island	218m	560	92 miles	north-west
Sinister Pool Island	562m	861	87 miles	south-east
Vulture Valley Island	258m	9027	98 miles	south-east
Whitewater Bay Island	452m	2929	58 miles	south-east

Clue 1

Check these maths calculations. If a calculation is right, put a tick. If it is wrong, put a cross.

Count up the number of ticks and crosses.

If there are more ticks than crosses, the buried treasure is more than 150 metres above sea level.

If there are more crosses than ticks, the buried treasure is less than 150 metres above sea level.

	Right ✓	Wrong ✗
32.6 - 21.52 = 11.8		
10.04 + 17.37 = 27.41		
2.3 + 1.84 + 3.07 = 6.94		
95.32 - 26.86 = 68.46		
1.257 + 15.682 = 16.939		
68.72 - 39.562 = 29.162		
15.686 + 39.868 = 55.554		
107.248 - 57.3 = 49.948		
84.732 - 69.92 = 14.64		
Total		

Clue 2

Use <u>written</u> methods of multiplication and division to solve these calculations. You could estimate the answers first. Circle the correct answers seen at the side and rearrange to find the second clue.
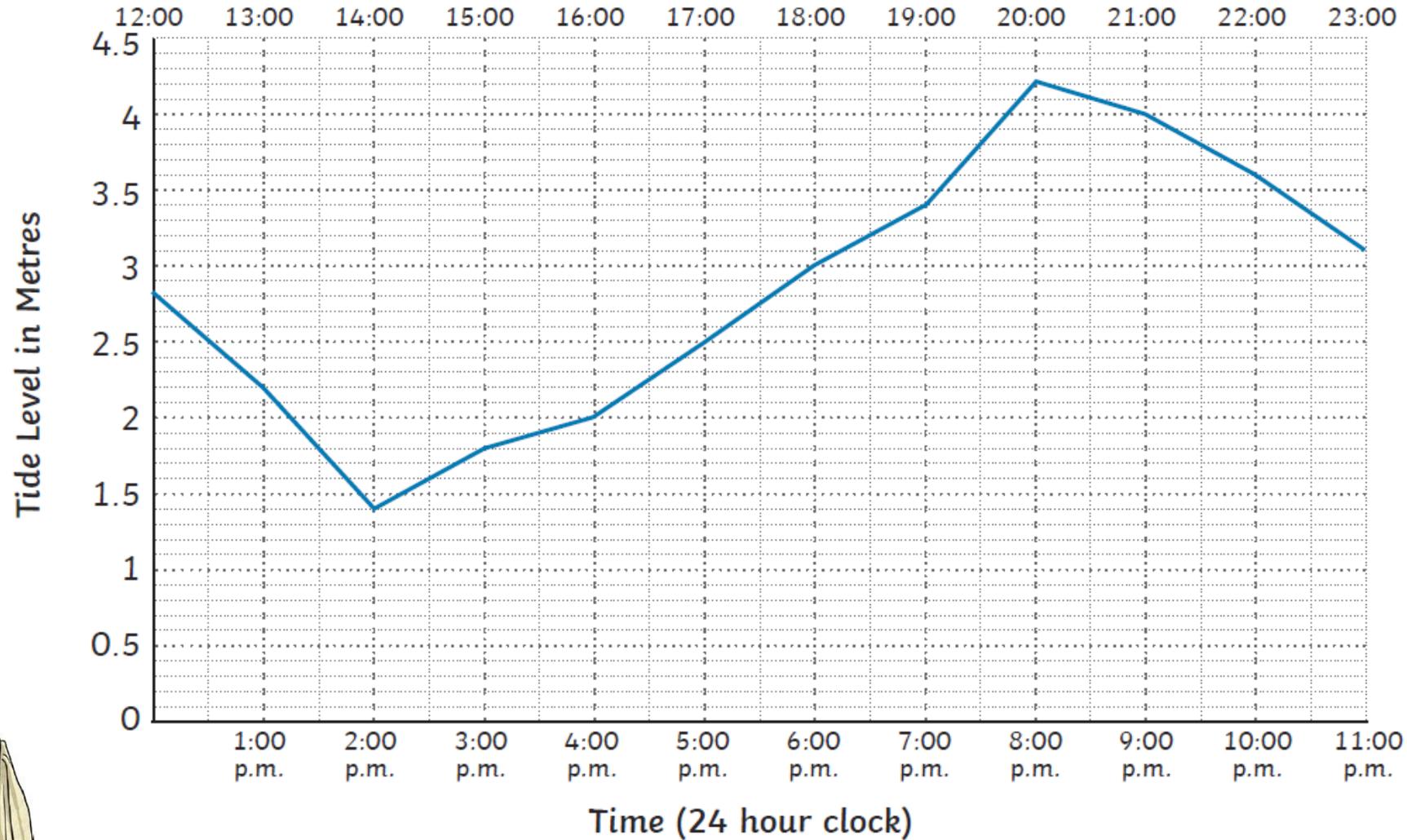
1. 18 × 36 =	2. 756 ÷ 9 =	3. 8.2 × 12 =

88 one thousand	540 six thousand
640 five thousand	130 four thousand
5980 ten thousand	6980 three thousand

4. 1024 ÷ 8 =	5. 19 × 28 =	6. 65 × 92 =

98.4 the	92.4 is more than
84 of the	532 population
648 island	128 is less than

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Clue 3

Answer the questions on the next slide and circle the answers in the table. Rearrange the words to find the third clue

A Line Graph to Show the Level of the Island's Tide

Clue 3 questions and answers

What is the height of the tide at 3:00 p.m. in the afternoon?

How many hours did it take for the tide to change from its lowest level to its highest level?

What is the height of the tide at 7:00 p.m.?

By how many metres did the tide level change between 2:00 p.m. and 8:00 p.m.?

By how many metres did the tide level change between 8:00 p.m. and 11:00 p.m.?

6 hours	1.7 metres	1.2 metres	1.1 metres
the	is less than	60 miles	70 miles
5 hours	3.4 metres	2.8 metres	1.8 metres
80 miles	island	is more than	away

Clue 4

Find the largest number in each set of numbers. Circle it from the table of answers and rearrange the words to find the final clue.

1.	2.6	1.84	1.8	1.805	2.06
2.	1.1	1.2	2.1	1.19	2.2
3.	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{5}{6}$	$\frac{11}{24}$	$\frac{2}{3}$
4.	56 235	56 181	56 824	65 455	56 881
5.	56.268	562.68	5.626	56 268	5626.8

the south-west	located in
2.06	$\frac{5}{6}$
island's	the south-east
2.6	$\frac{2}{3}$
are	the south
65 455	1.84

treasure caves	the north-east
2.2	2.1
the north	the east
56 881	5626.8
the north-west	the west
56 268	$\frac{5}{8}$

Using all the clues you have collected identify the location of the treasure

Location	Highest point above sea level	Population	Distance	Location of the island's treasure caves
Albatross Cliffs Island	220m	17 246	251 miles	north
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Answers

Clue 1: _____ **The buried treasure is more than 150 metres above sea level.** ____

Clue 2: _____ **The population of the island is less than ten thousand.** ____

Clue 3: _____ **The island is more than 70 miles away.** ____

Clue 4: _____ **The island's treasure caves are located in the north-west.** ____

The buried treasure can be found on: _____ **Ring of Rocks Island** ____

Thank you

We hope you enjoyed this Maths Department challenge.

There are many opportunities at Gordons to be creative and challenge yourself in Maths lessons and extra-curricular settings.

Have a safe and happy Summer, we can't wait to welcome you in September.