Maths Week 2020

Maths Week at Laurance Haines is different to how we had planned. However, this week we have tried to put together some fun maths activities that you can enjoy from home or school. There are also some extra challenges for KS1 and KS2 on codes and coding. We know you will be great code breakers! Remember to email and tweet your teachers or @MrsMartinLHS using #mathsLHS with photos and show off any work you have done – there are house points to be won! Use the recording sheet attached to collect your points.

Dress up in something with a number on **5 points**	Go on a number hunt – how many different numbers can you take pictures of around your home and neighbourhood? **2 points per number**	Bake some cupcakes – can you show how to cut them into halves, thirds and quarters? **8 points**	Human numbers – how many different numbers can you represent with your body? **10 points (double points for teamwork!)**
Choose four toys and lay them out from **longest** to **shortest**. Use a ruler or tape measure to measure their actual length – were you right? **8 points**	How many different things can you do in 1 minute? e.g. how many times can you write your own name? Say the 3x tables? How many star jumps? **3 points per activity**	Go on a shape hunt – how many different 2D and 3D shapes can you find around the house and your neighbourhood? **2 points per shape**	Raid a food cupboard – order the food from **lightest** to **heaviest** **6 points**
Traffic survey: watch a road for 30 minutes **(from a safe place with an adult)**. Can you **tally** how many cars go past? What about buses, vans, motorbikes, bicycles? Now can you draw a **graph** to show your results? **Pictogram: 10 points** **Bar chart: 20 points**	One million pounds! Assume you have £1 000 000 to spend or give away. Plan what you would do with it, down to the very last penny. Research the price of things using the internet. **10 points**	Use a variety of envelopes that come through your letterbox. Estimate both the **area** and **perimeter** of each envelope to the nearest centimetre by writing on the back. Measure them accurately using a ruler or draw 1cm squares to see how close your estimate was to the actual perimeter and area. **10 points**	Keep a record of how long you watch TV for each day for this week. ♦ Work out the **total** watching time for the week. ♦ Work out the **average** watching time for a day (that is, the total time divided by 7). **8 points**
Go on a **symmetry** hunt. How many symmetrical objects can you find in your home and neighbourhood? **2 points per object**	Make a **pattern** Use anything you like (paints/crayons/stones/leaves) to make a pattern and describe it e.g. my pattern goes stick, pebble, stone, stick, pebble, stone... **6 points**	Go on an **array** hunt. An array is an arrangement of objects in rows and columns. How many can you find? e.g.  **3 points per array**	Find a recipe for 4 people and rewrite it for 8 people. **6 points** Can you rewrite it for 3 people? Or 5 people? **10 points**

Cracking codes! KS1

Here are some extra challenges for KS1 based on codes and code-breaking – don't forget to show off what you have done by emailing your teachers or tweeting your activities

@MrsMartinLHS #mathsLHS

What is cryptography?

Cryptography is the use of codes and ciphers to keep information secret. There are records showing cryptography has been used for thousands of years!

Challenge 1:
Caesar shift code

Julius Caesar used a simple substitution cipher to send messages to his troops. He used a very simple rule to replace each letter with another letter from the alphabet. He substituted each letter by the letter that was 3 places further along in the alphabet, so that "a" was replaced with "D", "b" with "E" and so on.

Complete the table below to show what each letter is coded for:

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
D	E	F																							

Now try to uncode the following:

1) ODXUDQFH KDLQHV

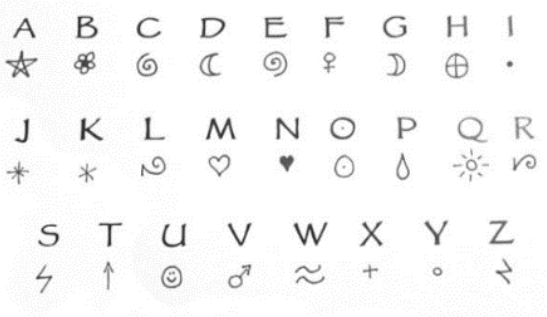
Now try to answer the following questions in code:

2) Your name
3) Your favourite food
4) Your favourite animal
5) Your favourite colour

Email your teachers with the answers and see if they can uncode them!

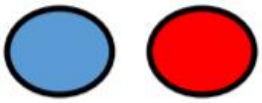
Challenge 2:
Design your own code!

For each letter of the alphabet, make up a symbol that could represent it e.g. star/cross/dot etc…

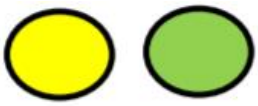


Can you write to a friend using your code?

Score Card



My school house is _____



Activity	Points available for this activity	Do I need to double my points or multiply by the number of things I found?	Have I sent evidence to a teacher?	Final score for this activity
Array hunt	*3 for each array*	*Yes x5*	*Yes - tweet*	*3x5=15*