Year 6

Hi Year 6, below you have two days of work before you join us on Wednesday.

	-	
Maths Remember extension work on this area can be found on Mathletics.	Monday	Below you have a magic crosses investigation. Read the instructions and see how many answers you can find. LO: Can I solve the magic crosses investigation?
	Tuesday	LO: Can I investigate the tiling problem? See how many possibilities you can make to the problem below.
English **Please also	Monday	LO: Can I record my summer holiday memories? Write down your favourite holiday memory. Remember to use lots of quality adjectives and punctuation. We will share these when you return on Wednesday. You can bring these with you on Wednesday to share.
encourage your child to read daily either independently or to an adult.	Tuesday	LO: Can I write a book review? Complete a book review for a book you have read, while you have been away from school. You could use the template below as a guide: Book Title: Author: Fiction or Non-fiction: What is the book about? Book Illustration Rating: Can you write three facts you have learnt or three things you have learnt about one of the characters? 1. 2. 3.

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Topic/Science	Торіс	As we start learning about World War II, make a poster about what you already know about WWII.
		and Roppies
	Seience	and Foppies.
	Science	what has been your favourite area of Science you learnt about in Oak Class, during last year?
		Make a poster to show me. A reminder of some of the sciences topics you have covered in Oak (before lockdown) were:
		evaporation and condensation and separating mixtures (sieving, filtering, magnetism).
	Activity 1	Cosmic Kids Yoga
	Activity 2	Real PE at home – online learning resources Real PE at home includes an online programme which supports families to be active, play
		and learn together. Here are the details to access real PE at home:
		The website address is: home.jasmineactive.com
		Parent email: parent@lyngcofepr-1.com
		Password: lyngcofepr
Art/Crafts	Activity 1	Create a decorated version of your name. Write your name in 'Bubble style', see the examples below.
		Either decorate each of the letters in a different way or with pictures of things you like.
	Activity 2	Design your dream pencil case. Design what you would like on the case and the equipment you would put inside.

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Maths below:

Monday's work: Magic Crosses investigation

Here are pictures of two crosses:

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5 4

What do you notice about the two crosses? What is the same? What is different?

Both crosses use the digits 1, 2, 3, 4, and 5. The left cross has a horizontal total of 12 and a vertical total of 6. The right cross has a horizontal total of 8 and a vertical total of 8.

We call the cross on the right a *magic cross*, because its horizontal total is equal to its vertical total.

Can you find any more magic crosses using the digits 1, 2, 3, 4 and 5? Can you find all the possibilities?

Can you convince yourself you have found them all?

Here are some questions you might like to consider:

Are there any magic crosses that use the numbers 2, 3, 4, 5, 6?

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Or 3, 4, 5, 6, 7? Or 98, 99, 100, 101, 102?

How many magic crosses can you find with the number 50 in the middle?

What if the numbers went up in 2s instead? Or 3s? Or 10s, or 20s, or 100s?

Perhaps you have some questions of your own that you would like to explore too!

Tuesday's work: Tiling investigation Let's imagine we are tiling a floor or patio area. Suppose the area is square and is 3 by 3.

Tiles come in three sizes: 1 by 1, 2 by 2 and 3 by 3. You are allowed to use any arrangement of these tiles to cover the space completely. However, none of the tiles can be cut.

For this challenge, we are interested in the total number of tiles you use for any arrangement. For example, for the 3 by 3 square you could do it by using:



nine 1 by 1 tiles,

OR

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one 2 by 2 and five 1 by 1 tiles,

OR

one 3 by 3 tile.

Therefore the smallest number of tiles is one and the largest is nine and the only other value you can get between one and nine is six (using one 2 by 2, and five 1 by 1).

Now imagine you also have tiles which are 4 by 4 in size. What total numbers of tiles can you use for a square patio that is 4 by 4? If you could have tiles which are 5 by 5 as well, what total numbers of tiles can you use for a square patio that is 5 by 5?

The final part of this activity is to examine carefully the answers you get for each of the three sizes of floors - 3 by 3, 4 by 4 and 5 by 5.

Now talk about and record what you notice. Make some statements about what you therefore think will happen if someone takes the long time needed to explore a 6 by 6 and 7 by 7 square.