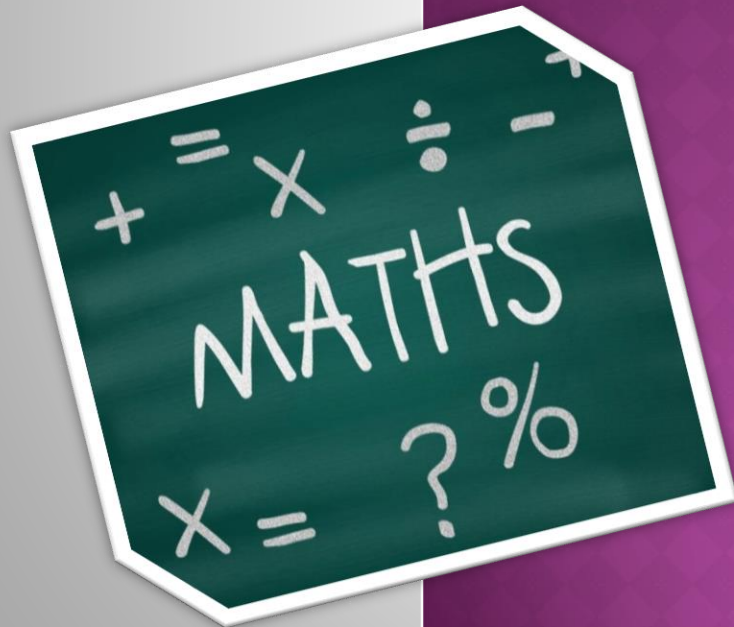


# WELCOME YEAR 3 AND 4 MATHS STAY AND LEARN



# THE AIM OF TODAY'S STAY AND LEARN FOR MATHS...

- ◉ Give you an overview of our approach in maths and the methods we use in Years 3 and 4.
- ◉ Look at example questions from previous assessment papers.
- ◉ Ideas about how to support your child with maths at home.
- ◉ An opportunity for you to explore some maths activities with your children.
- ◉ Year 3 and 4 Programme of Study for Maths
- ◉ Mission Impossible

# MATHS IN YEARS 3 AND 4

- ◉ The children are set across Year 3 and Year 4 for maths. Like in previous years, this is according to ability. They are set to a class so that they can learn maths at a pace that works for them and in a way more tailored and targeted to their needs so that they are both adequately supported and challenged.
- ◉ Maths lessons focuses on building on the previous year's curriculum and extending learning further
- ◉ Expectation and pace for Years 3 and 4 are higher than in previous years as the curriculum increases

# CALCULATIONS

- ◉ We teach children how to add, subtract, multiply and divide with different methods.

***Addition and Subtraction*** - Columnar methods.

***Multiplication*** - Grid method.

***Division*** - Chunking method.

Each step is aimed at **increasing understanding**, not just at being able to do the calculation. This is important as children are going to need to be able to problem-solve through life.

Application of methods once secure when using method  
Fluency --- problem solving and reasoning

# OUR APPROACH TO TEACHING MATHS

At Thorpe Hesley we use White Rose Maths to structure our maths teaching whilst pulling resources from a range of different sources.

White Rose Maths teaches maths fluency (arithmetic) and problem solving and reasoning.

## FLUENCY, REASONING AND PROBLEM SOLVING...

# EXAMPLE FLUENCY QUESTIONS...

Complete the column additions.

a)

Tens	Ones

	T	O	
	2	8	
	+	4	3
	_____		
	_____		



Use Tiny's fact to complete the number sentences.

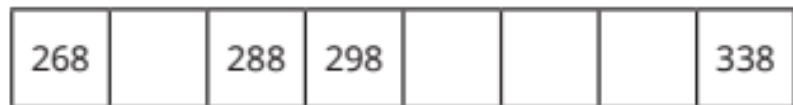
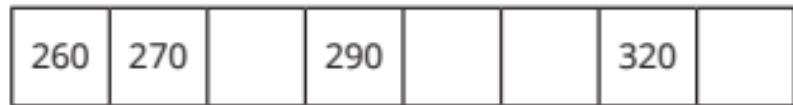
- ▶  $20 + 50 = \underline{\quad}$                       ▶  $500 + 200 = \underline{\quad}$
- ▶  $7 - \underline{\quad} = 2$                               ▶  $70 - \underline{\quad} = 50$
- ▶  $70 = \underline{\quad} + 50$                           ▶  $\underline{\quad} = 700 - 200$

b)

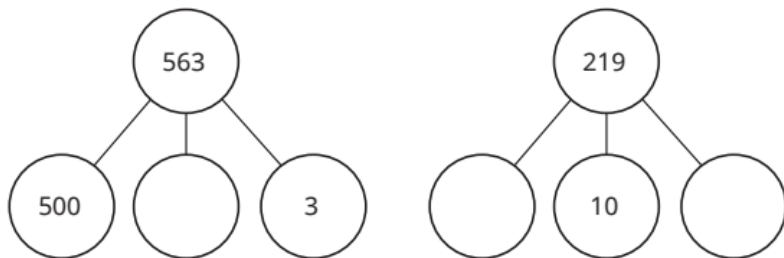
Hundreds	Tens	Ones

	H	T	O	
	2	3	5	
	+	1	5	7
	_____			
	_____			

Complete the number tracks.



• Complete the part-whole models.



Work out the subtractions.

$70 - 3$	$370 - 3$	$640 - 8$	$520 - 7$
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# EXAMPLE REASONING AND PROBLEM SOLVING QUESTIONS...

Dexter is thinking of a number.

My number is a 3-digit number.



It has the same number of tens as ones.

The digit sum is 10

What could Dexter's number be?  
Find each possibility and partition it.

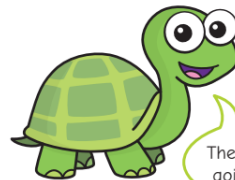
Tommy is thinking of a number.



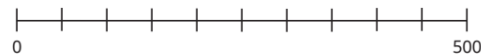
My number rounds to 4,500 to the nearest 100, but to a different number when rounded to the nearest 10

What number could Tommy be thinking of?

How many answers can you find?



The number line is going up in 100s.



Do you agree with Tiny?  
Talk about your answer with a partner.

$$627 + \square = 943$$

I think the answer is 1,570



Show by estimating that Tiny has made a mistake.

What mistake has Tiny made?

Find the correct answer.

Complete an inverse operation to check your answer.



# TIMES TABLES

- ◉ Times tables are key to helping your child being able to calculate quickly, even when using written methods and underpin many areas of the maths curriculum, e.g. division, fractions etc.
- ◉ We will be working to develop a fluency in all the times tables over the course of Year 3 and Year 4.
- ◉ You can help your child by practising at home on a regular basis.
- ◉ By the end of Year 4 your child needs to know these off by heart and be able to recall with speed and accuracy, e.g.  $6 \times 4 = 24$ ,  $5 \times 9 = 45$ .



# BEYOND CALCULATIONS...

Maths isn't just calculations and we don't only teach Number and Place value and calculations. Other areas of the maths curriculum are:

- ◉ Shape
- ◉ Statistics
- ◉ Money
- ◉ Measurement (length and perimeter, mass and capacity)
- ◉ Fractions
- ◉ Time

# EXAMPLE REASONING QUESTIONS...

A pizza is cut into 8 slices. Zara says, “If I take half of the pizza, and my brother takes 4 slices, we will both have the same amount.” Is she correct? Convince me by using a diagram.

A class is planning a trip to a theme park. Adult tickets cost £8. Children’s tickets cost £4. How many tickets could they buy for £100. How many different ways can you find to do this?

Here are the co-ordinates of corners of a rectangle which has width of 4. (7, 2) and (14, 2)  
What are the other two co-ordinates?

A shape has the area of  $17\text{cm}^2$ . Could the shape be a rectangle? Explain your answer.

Put these amounts in order starting with the largest.  
Half of 5 litres  
Quarter of 8 litres  
700 ml  
Explain your thinking.

Which would you rather have, five 50p coins or 12 20p coins? Explain why.

# TOP SECRET

- ◉ ‘Top secret’ activities show where children are reasoning and explaining their mathematical thinking
- ◉ Examples might be activities which ask the children to... explain their thinking, justify their answer, convince me, prove it, true or false etc.
- ◉ We use a ‘top secret’ stamp in school for this and the children are familiar with this
- ◉ This is a really good way to extend children’s thinking and challenge them further and deepen their learning



# MISSION ~~IM~~POSSIBLE

- ◉ Whole school innovative introduced a couple of years ago
- ◉ Opportunities to use problem solving and reasoning skills
- ◉ Lessons help develop perseverance and resilience
- ◉ Children enjoy being the “secret agents” or “detectives”
- ◉ Ask your child about Mission Impossible in school 😊

# ASSESSMENT

- ◉ We continuously assess your child during every maths lesson and adapt teaching to suit their needs.
- ◉ Opportunities for post-teach and pre-teach.
- ◉ We assess progress towards the end of each term, using assessment papers (1 paper arithmetic and 1 paper problem solving and reasoning)
- ◉ Your child is assessed against **Age Related Expectations**
- ◉ We will let you know about these in parent consultations and in their reports. However, if there are any concerns or areas to focus on, this is something your child's teacher or maths teacher will discuss with you.

# HOMework

- ◉ Set by your child's maths teacher.
- ◉ Usually every Friday & this is to be completed by the following Friday.
- ◉ We will mark before your child receives their book with their next homework or mark with your child in school as part of the lesson.
- ◉ If your child does not understand their homework, ask them to come and speak to me about it before it is due in! We are more than happy to go through it with a child during break time or lunchtime if they are struggling.
- ◉ Homework club available on a Tuesday

# SUPPORTING YOUR CHILD AT HOME...

- ◉ Support your child with the methods and other mathematical concepts they have been taught. Ask your child about the methods we use in school
- ◉ The calculation policy is on our school website along with other helpful links for home
- ◉ Come and ask us and we would be happy to go through homework - things have changed since we were at school!
- ◉ Times tables, counting, telling the time...
- ◉ Support with homework tasks
- ◉ Practise times tables.
- ◉ Discuss the time - analogue and digital.
- ◉ Use and discuss money.
- ◉ Maths in every day life. Link to every day life experiences, e.g. change from a shop, reading bus timetables etc.
- ◉ Real- life maths opportunities



# MULTIPLICATION TIMES TABLES CHECK (MTC)

- Children should be going on TT Rockstars as often as they can.
- Times tables are very important as there is a Government check at the end of Year 4 in June (MTC).
- We have an MTC meeting for Y4 parents booked on 17<sup>th</sup> January 2023 @ 3:30pm and a times table stay and learn for on 23<sup>rd</sup> March.
- The format of TTRockstars Soundcheck is very similar to the check. We will use Kindles with a touchscreen for the MTC test.

