Archbishop Cranmer C of E Academy

'Striving for life in all its fullness' John 10:10

Maths and Online Safety Parent Workshop

Agenda

During the workshop we will:

- share details about our online safety provision and guide parents to our online safety web page
- share details about the new math curriculum.
- explain how it supports and challenges.
- share KS2 end of year SATs questions and how the maths scheme supports with these, giving them the tools to tackle them.
- answer any questions or concerns you may have

What is White Rose Maths?

White Rose Maths is a comprehensive and structured approach to teaching mathematics that focuses on developing a deep understanding of mathematical concepts. It offers a carefully designed curriculum that progresses in a logical sequence, ensuring students build a solid foundation in maths.

Five Big Ideas

1. Representation and Structure:
This idea focuses on presenting mathematical concepts in various forms and structures. It emphasises the importance of using different representations (such as visual, symbolic, or concrete) to explore and understand mathematical concepts. By using diverse representations, students can develop a deeper understanding of the underlying structures and relationships within mathematics. eg the part, part whole model and the bar model.

2. Mathematical Thinking:
Mathematical thinking involves encouraging students to approach problems thoughtfully and strategically. It nurtures their ability to think critically, analyse problems, and use reasoning to solve mathematical challenges. It's about fostering a mindset that promotes problem-solving skills and logical thinking in various mathematical contexts.

3. Fluency:
Fluency in mathematics refers to having a strong grasp of foundational mathematical skills. It's not only about being quick with arithmetic but also having a deep understanding of mathematical concepts. Students should be fluent in applying mathematical procedures accurately and efficiently, which allows them to tackle more complex problems confidently. eg Fluent in 5 and Flashback 4.

4. Variation:
Variation involves presenting mathematical concepts in different ways, using various contexts, and exposing students to a range of problems related to a single mathematical idea. This helps students develop a deeper understanding of the concepts by seeing how they apply in different situations. It also encourages flexibility in thinking and problem-solving. eg Conceptual Variation is showing a quarter in a 2D and 3D shape or procedural variation 120-90=30, 122-92=30, 220-190=30, 117-87=30, 110-80=30.

5. Coherence:
Coherence stresses the importance of connecting different mathematical concepts. It ensures that learning is not compartmentalised but rather interconnected. This idea aims to show the relationships between various mathematical topics and how they build upon each other. By establishing connections between different areas of mathematics, students develop a holistic understanding of the subject. This shown through the progression of White Rose and the small, connected steps in the individual unit. Our Go4s and Ad+ challenge highlights this.

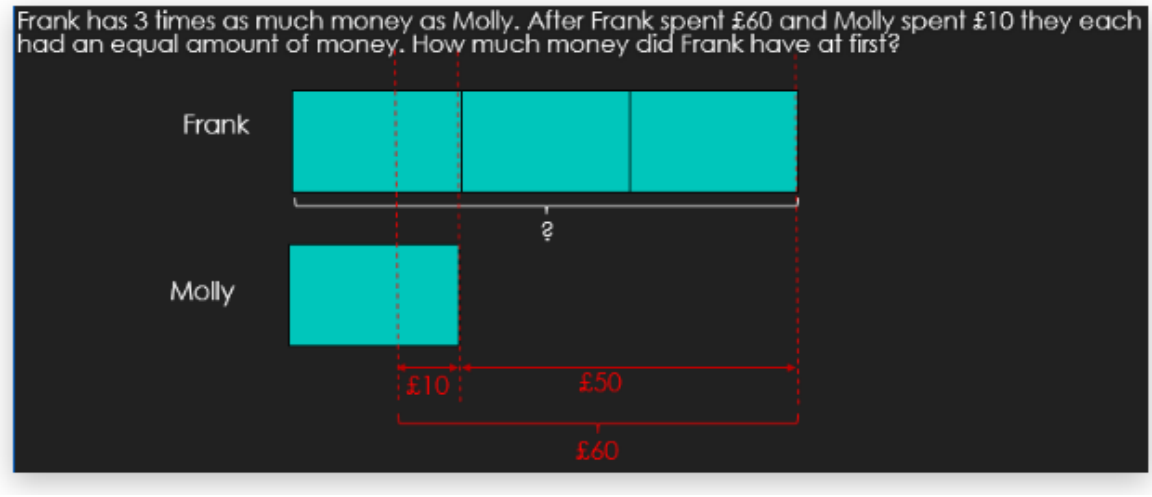
Benefits to Students:

- Conceptual Understanding: The scheme emphasises a deep understanding of mathematical concepts rather than rote memorisation, allowing children to grasp the "why" behind mathematical processes.
- Progressive Learning: The curriculum is structured in a way that ensures a gradual progression from basic to more complex concepts, enabling students to build upon their knowledge incrementally.
- Clear Learning Objectives: The scheme outlines clear learning objectives for each lesson, making it easier for students to track their progress and for parents to understand what their children are learning.
- Practical Application: White Rose Maths often incorporates real-life scenarios and problem-solving tasks, enabling students to apply mathematical concepts in practical situations.

Impact on Students:

- Improved Performance: Students exposed to the White Rose Maths scheme exhibit improved performance due to a deeper understanding of the subject matter.
- Confidence Building: By understanding the fundamentals of mathematics, students gain confidence in their problem-solving abilities, leading to increased self-assurance in tackling mathematical challenges.
- Critical Thinking Skills: The scheme encourages critical thinking and problem-solving, nurturing analytical skills that are essential not only in maths but also in various aspects of life.

Challenge:



Question: Frank has 3 times as much money as Molly. After Frank spent £60 and Molly spent £10 they each had an equal amount of money left. How much money did Frank have at first?

Answer: As we can see from the bar model each of the larger green units must be worth £25 so while Molly started with £25, Frank had £75 at first.

9

12	3	5	32	50	8	1

+	−	×	÷

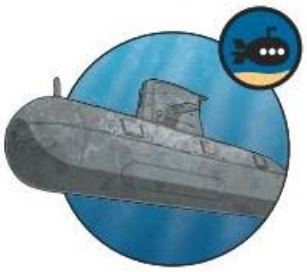
Use the cards to make the number 120 in different ways.

You can use each number card once only in each calculation.

You can use each operation as many times as you want.

Each calculation should involve a multiplication and/or a division.

1) In Rose's submarine, the pressure gauge beeps every 3 minutes and the depth gauge beeps every 5 minutes. How many times in an hour will the two gauges beep at the same time? Provide examples to back up your answer.



2) Rose leads a team of two divers who send reports back to her monitor throughout the day, from 7 a.m. to 1 p.m. Caspar sends his reports back every 12 minutes. Ingrid sends her reports back every 18 minutes. How many times a day will their reports come into the monitor at exactly the same time? Explain your reasoning using examples.

Can you work out all the times that the reports will come in at the same time?

N.B: It's essential to support your children by reinforcing learning at home. This could involve practicing maths through games, encouraging real-life problem-solving situations, or simply showing interest and asking about what their children are learning either in school or as part of their homework tasks eg timestables.

Feedback

Feedback from the session was wholly positive leading to a half-termly parent workshop: reading and grammar to follow in the coming terms.