Maths at Rushen Primary School

At Rushen we follow the key principles of a Maths Mastery approach, focusing on deep understanding through fluency, reasoning, and problem-solving, and utilising a Concrete, Pictorial, Abstract (CPA) progression. It emphasises building a growth mindset with high expectations for all, providing collaborative learning opportunities, reinforcing knowledge through logical sequences, and offering adapted support through enabling and extending questions. Many resources are used, including some planning from White Rose maths.

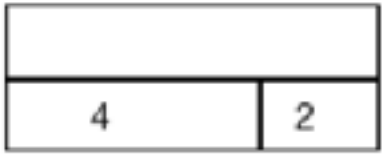
Teaching for Mastery

- **Deep Understanding:** At Rushen we aim to focus on a deep understanding of maths skills rather than just breadth of topics, ensuring knowledge is reinforced and built upon through logical progressions and small, sequenced steps.
- **Growth Mindset:** The philosophy is that everyone can succeed in maths, fostering resilience and a belief that abilities can grow.

Focus on Fluency, Reasoning and Problem-Solving

- **Essential Skills:** The approach aims to develop core competencies in mathematical fluency, reasoning and problem-solving.
- **Number Sense First:** Confidence with numbers is a foundational priority, with strong number sense built through counting, recognising patterns and understanding place value. ‘

Fluency: How many different ways can I show this calculation? With beads, with part whole model, in a bar model.

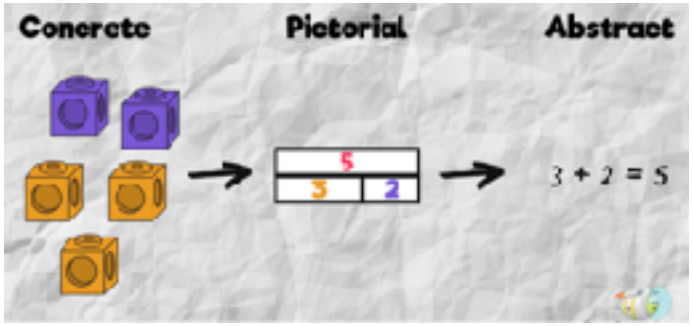


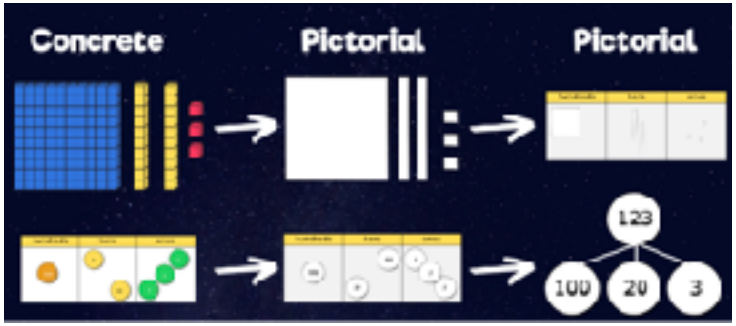
Reasoning: Explaining my answer and why I think it's correct. I know 4 + 2 = 6 because there are 4 counters there and 2 there and when I count them altogether there are 6 counters. 6 is two more than 4.

Problem solving: Applying skills to complex or real-life problems.
Tom has 4 cards, Alice has 2 cards, how many do they have altogether?

Concrete, Pictorial, Abstract (CPA) Approach

- **Three Stages:** Concepts are introduced first with concrete objects (e.g., counters), then represented pictorially (e.g., part-whole models), and finally moved into abstract calculations.





- Knowing key mathematical facts e.g. number bonds to 10 and 100, basic addition and subtraction to 10, 20 and 100
- Multiplication and division facts
- Thinking flexibly
- Making connections

Sample of maths statements that your child will cover throughout Year 4.

- Read, write and recognise numbers up to 10,000.
- Add and subtract numbers to three digit numbers.
- Know and use multiplication and division facts up to 10x10.
- Recognise and show equivalent fractions.
- Read and write times in 12 and 24 hour clock.
- Use, read, write and convert units of measure : mm, cm, m, kg, g, l, ml.
- Recognise, build and compare 3D shapes.

How you can help at home:

- Talk about whole numbers you see e.g. road signs, house numbers, blocks for building towers of different height.
- Count in steps of 2, 3, 4, 5, 6, 7, 8, 9 and 10 using counters, blocks and coins. Divide objects to represent multiples. Sing multiplication songs.
- Play 'shops' and ask children to add totals and give change in different coin combinations.
- Divide items into halves and quarters, 1/3, 1/6, and consider how you can use these to make 2/6 etc.
- Talk about time, what time they go to bed, get up, go to school. Look at digital and analogue clocks, how long is it till bedtime?
- Allow children to measure ingredients for baking, using scales and measuring jugs, looking at the scales and markings. Do similar with measuring tapes.