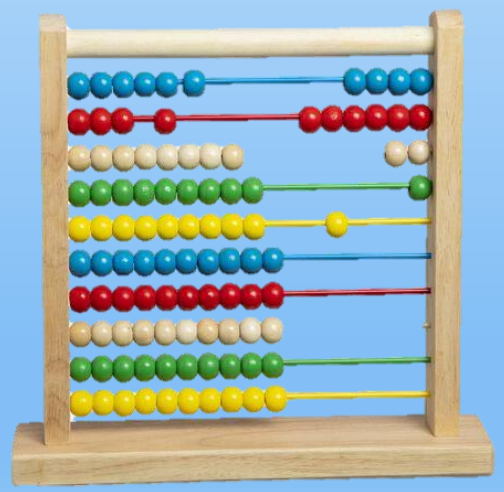
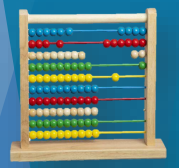
Southway Junior School

Mathematics



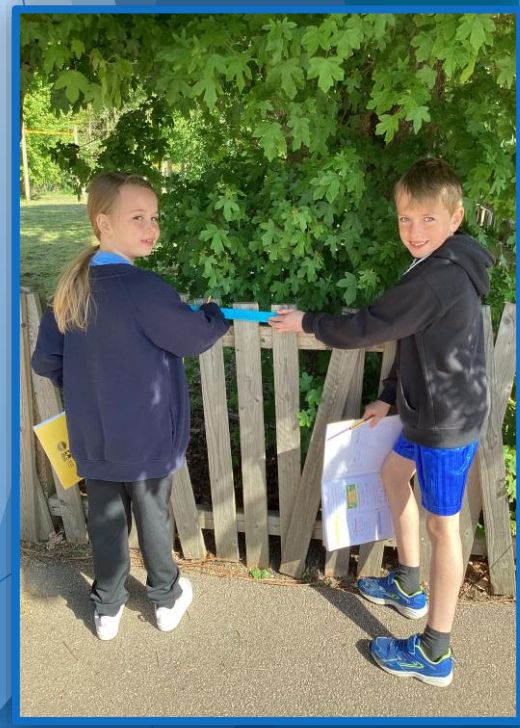
Intent



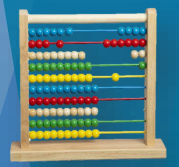
At the centre of our approach to the teaching of mathematics at Southway Junior is the unwavering belief that all children have the potential to succeed. We believe that all children need a deep understanding of the mathematics they are learning and use small steps to build all children into great mathematicians.

Our intent for the maths curriculum is:

- To ensure all pupils are fluent mathematicians, who are confident and **resilient** in the fundamentals of mathematics through varied, frequent and independent learning. Using a maths mastery approach and small step teaching, with cohesion throughout the school, pupils use mathematical concepts, facts and procedures fluently, flexibly and appropriately
- To promote mathematical reasoning by following a line of enquiry, conjecturing relationships and making generalisations with **respect** in their mathematical learning, and by developing an argument, justification of proof using high quality mathematical vocabulary through inside-out teaching
- Have sufficient breadth of knowledge and understanding to solve problems by applying their mathematics to a variety of questions with increasing sophistication and persevering in seeking solutions, whilst demonstrating creativity, imagination and **kindness**
- To encourage a sense of enjoyment and curiosity about maths, through ambitious, interactive lessons and activities, showing **teamwork**
- To make sure that children leave Southway as confident, creative and inquiring mathematicians



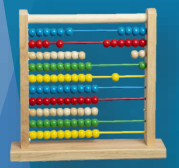
Implementation



Southway Junior School strives to reach the highest standards, using the mastery approach, which involves breaking down larger, complex learning goals into smaller, more granular steps, where every child has the same starting point.
We take a starting point of a concrete, pictorial and then abstract approach (CPA) to maths lessons, where firstly the children are introduced to a new concept through concrete, physical resources. Children then move on to pictorial, visual representations to further consolidate their understanding. Finally, the children will be introduced to abstract ideas on paper, where they can apply their knowledge through a range of fluency, reasoning and problem solving activities. A CPA approach, along with valuing manipulatives within lessons and building in variation within our teaching allows a mastery maths approach to be taught across the school.

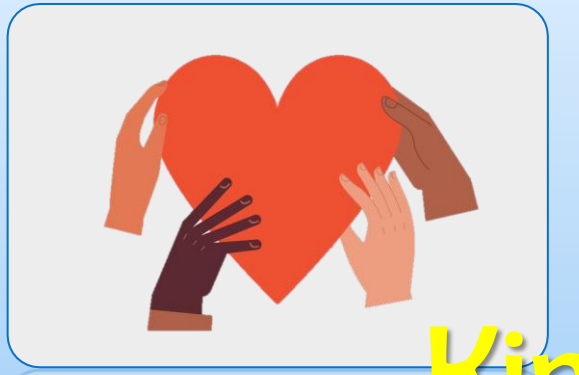
Using a mastery approach, this allows all pupils to develop deep knowledge, understanding and confidence using small steps and allows them to develop their **resilience**, **teamwork**, **independence** and **respect** within the subject.

Impact



We believe that every child has the potential to become a confident and successful mathematician at Southway Junior School. During their time here, the children will develop their fluency and learn how to reason and problem solve effectively and efficiently, using **teamwork**. Using these skills to solve real life problems will help them succeed with mathematical challenges in the future and build upon their **resilience**. At Southway Junior School, we will help the children develop the tools they need, so that they are ready for the challenges of secondary school and beyond, facing any challenges with **respect** and **kindness** towards others.

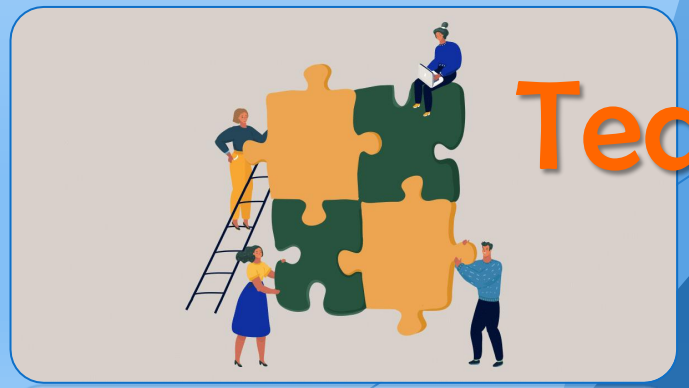
Southway's Values



Kindness

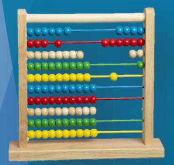
Respect

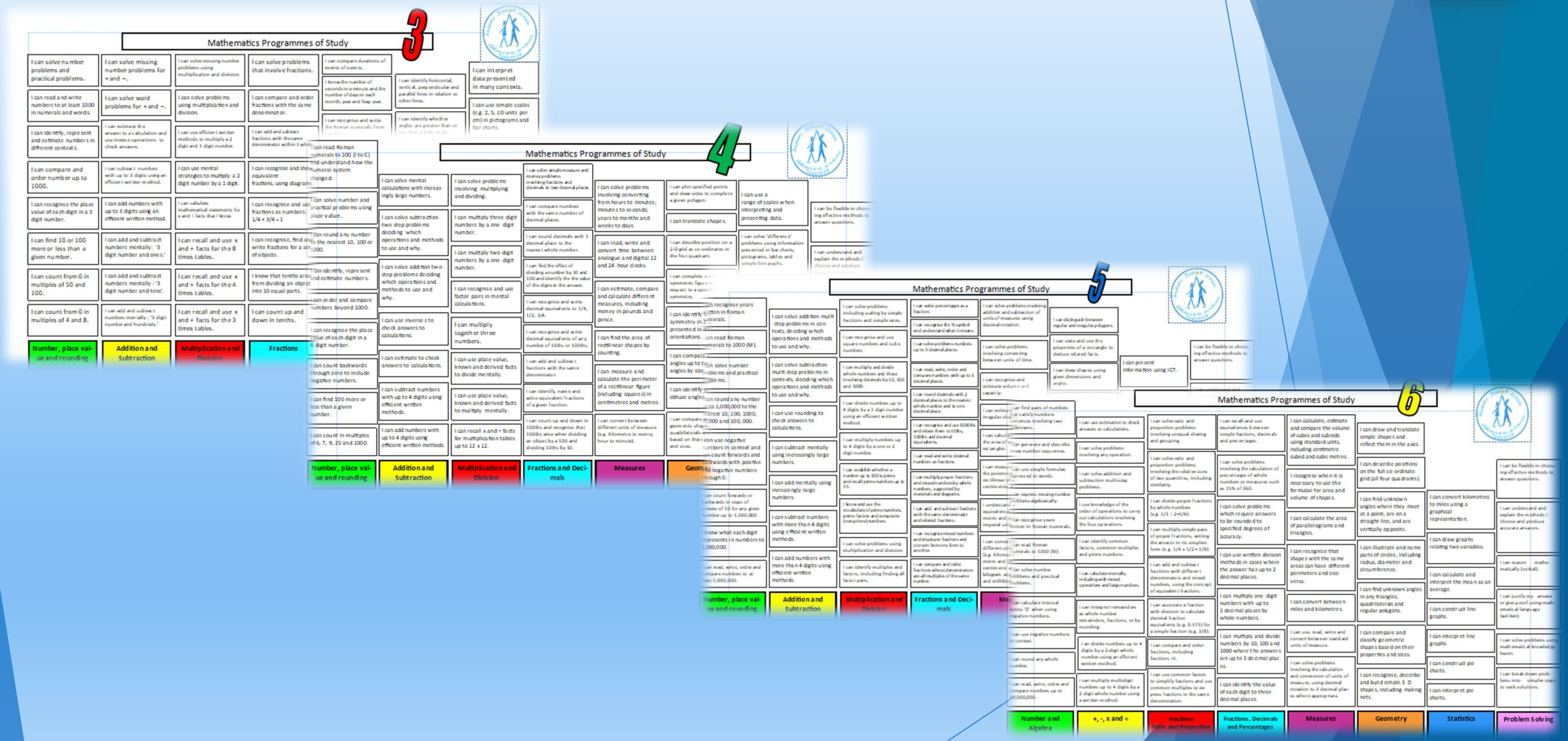
Resilience



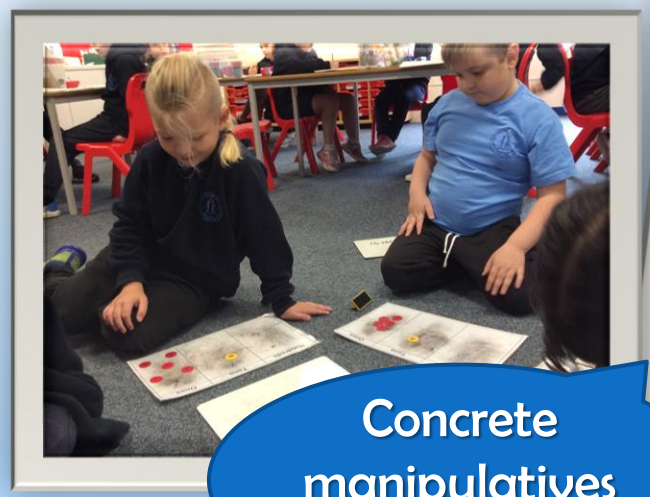
Teamwork

Curriculum Overview





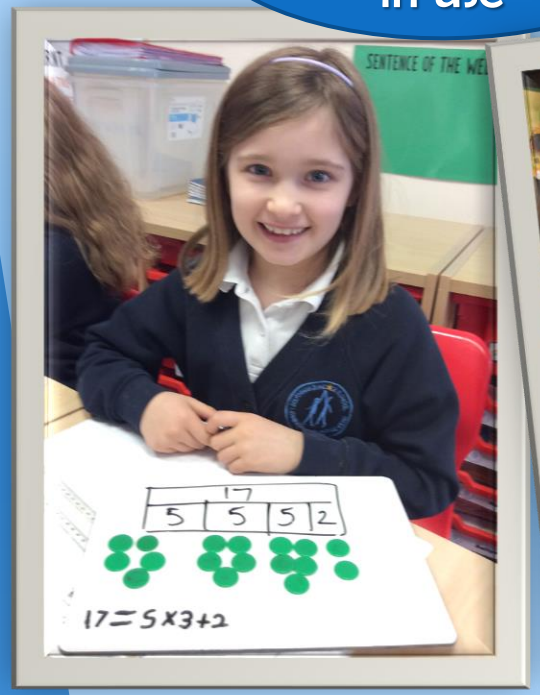
STANDARDS IN YEAR 3

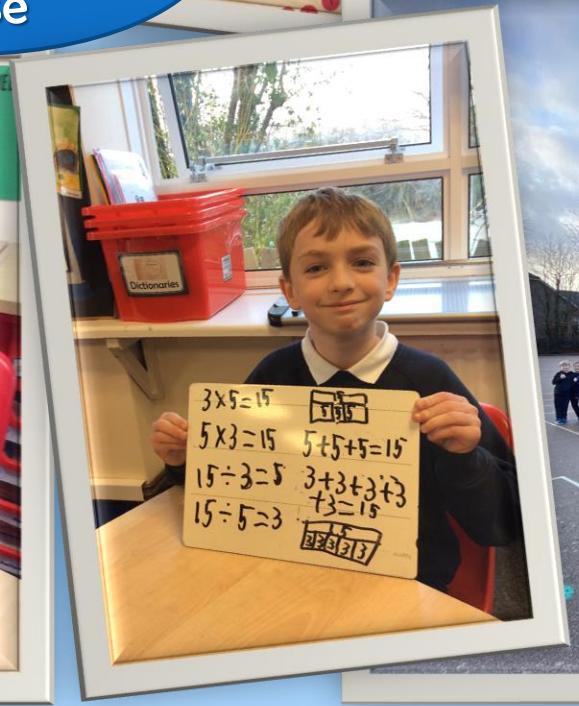


Concrete manipulatives in use

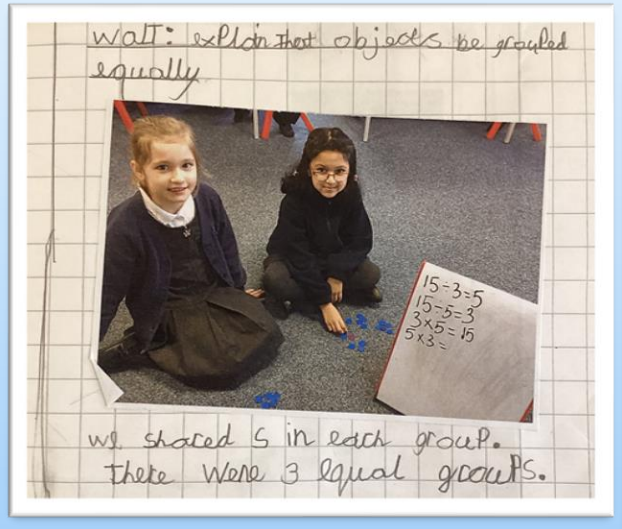
Children becoming teachers

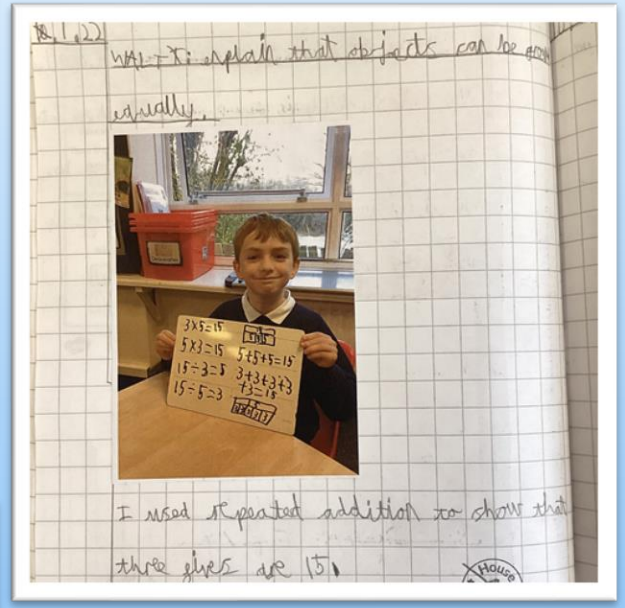
Outside learning

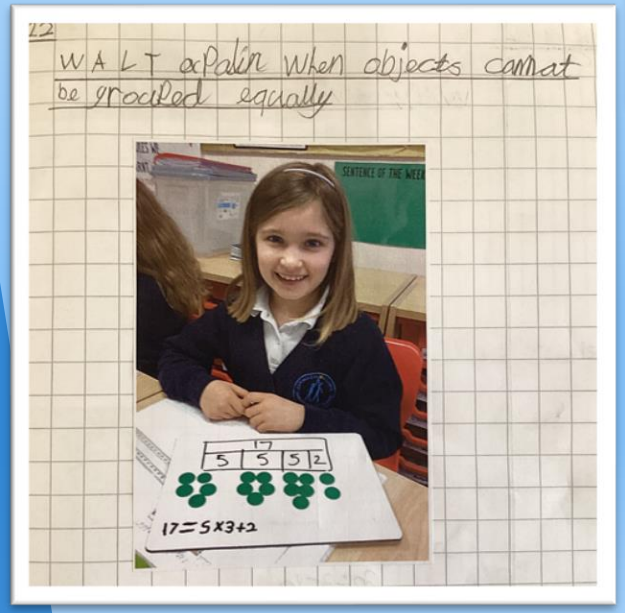




STANDARDS IN YEAR 3

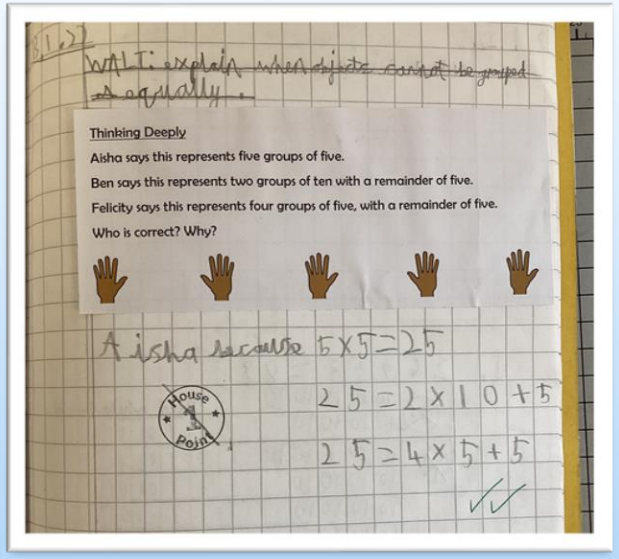


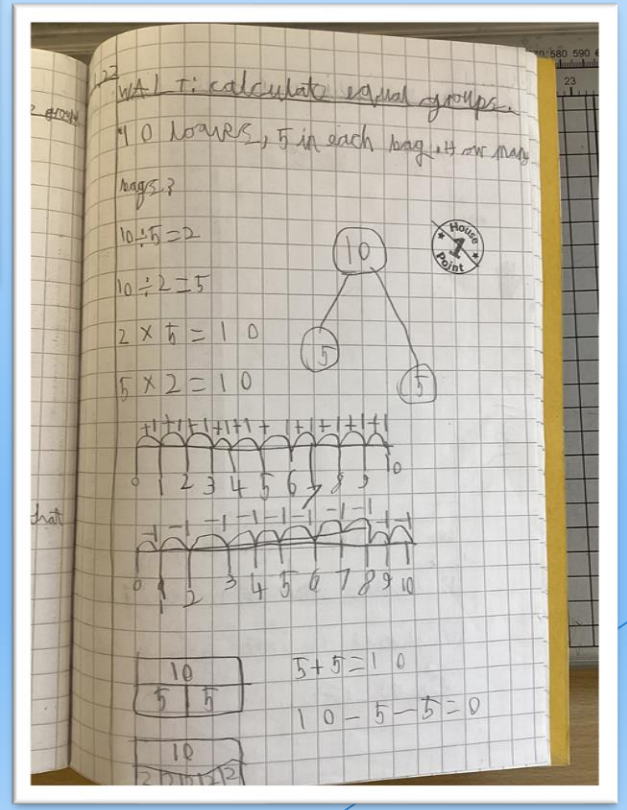


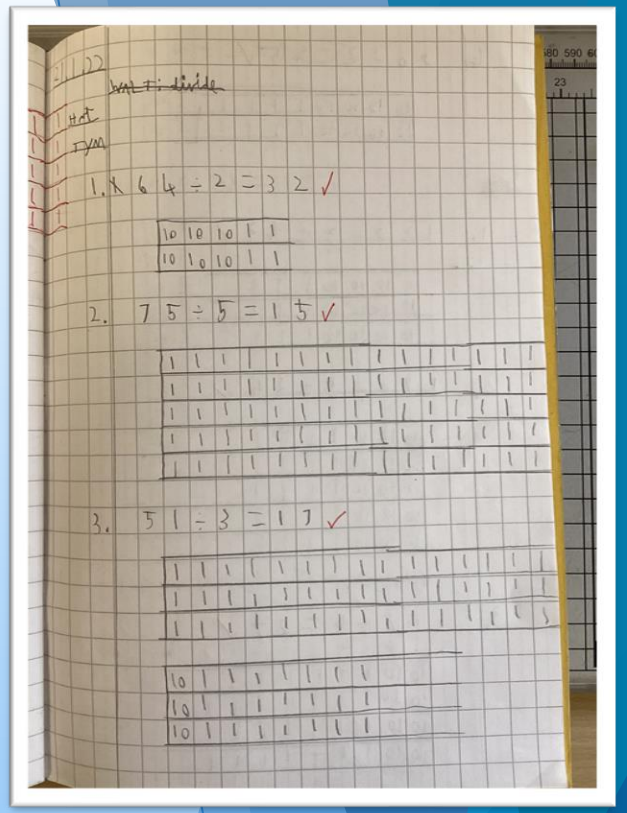


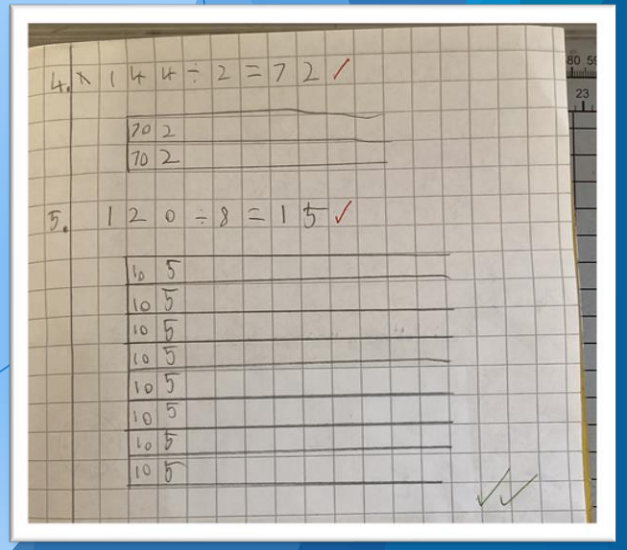
Division

Progression in Year 3



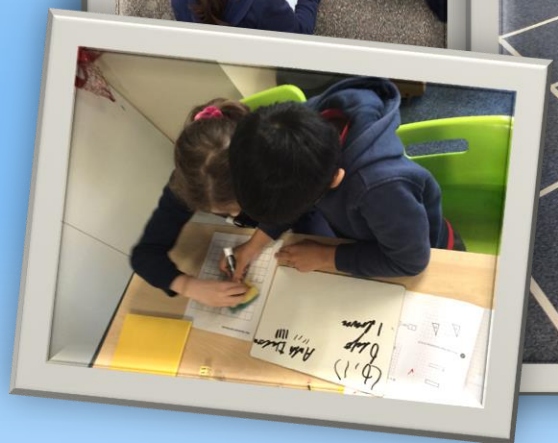






STANDARDS IN YEAR 4

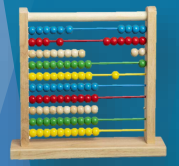
Outside learning



Translation

Buddy maths

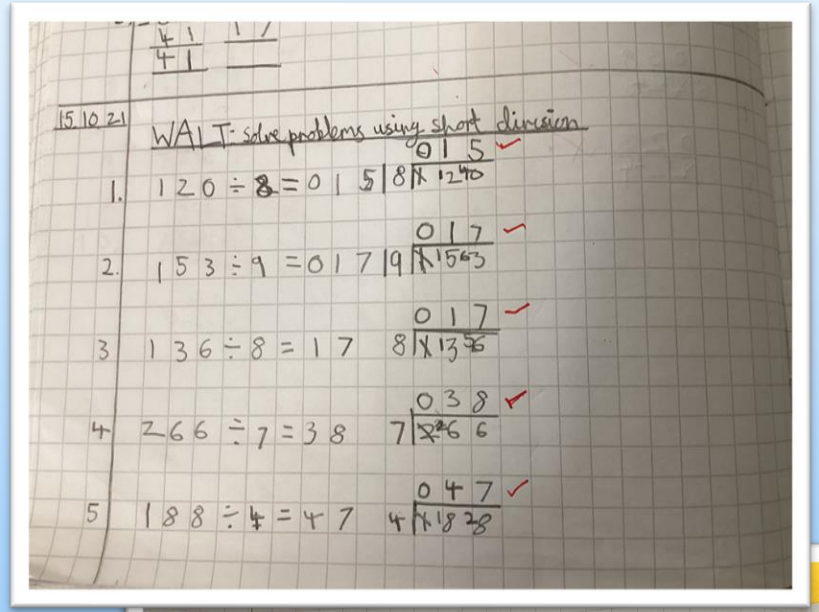
Perimeter

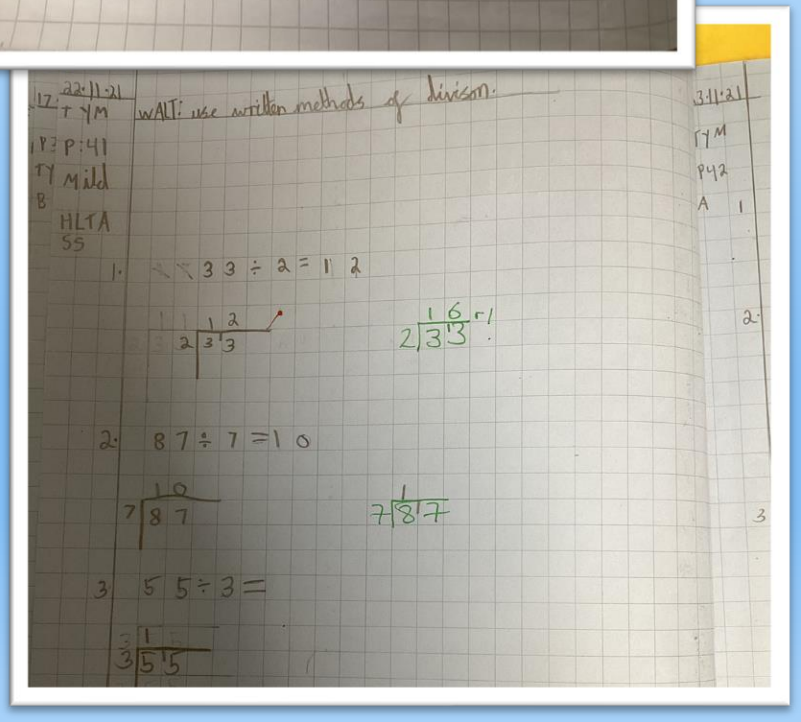


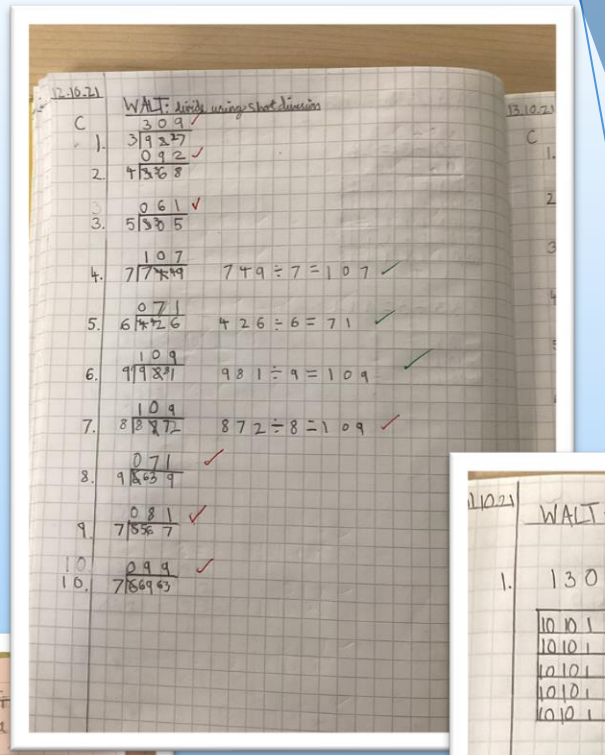
STANDARDS IN YEAR 4

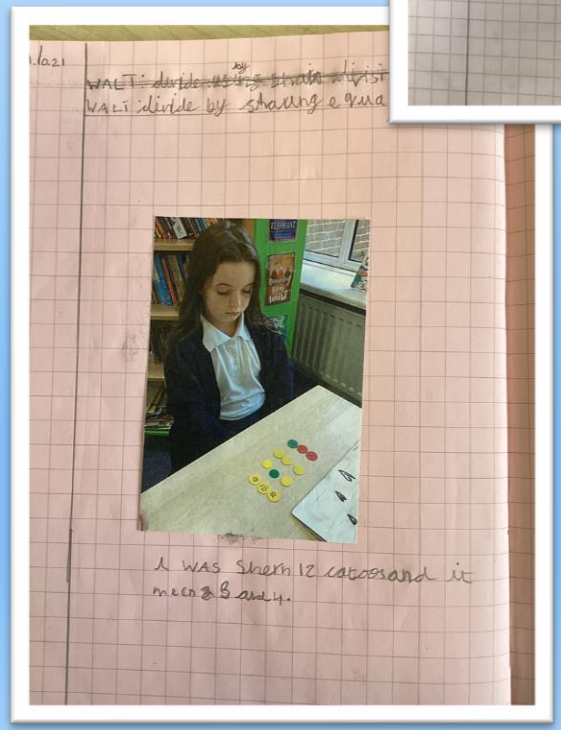
Division

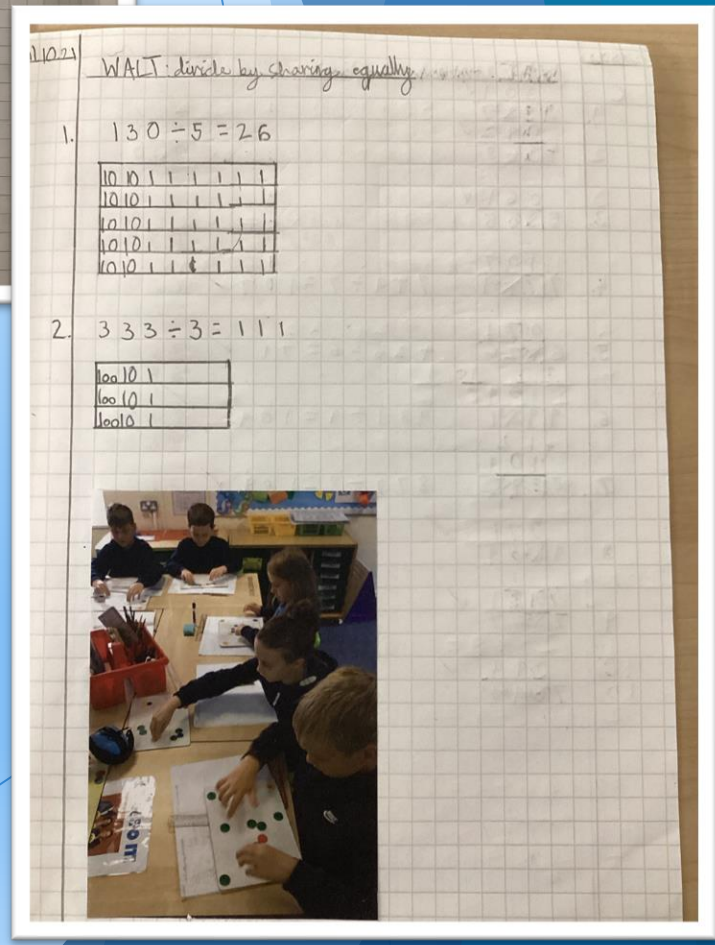
Progression in Year 4







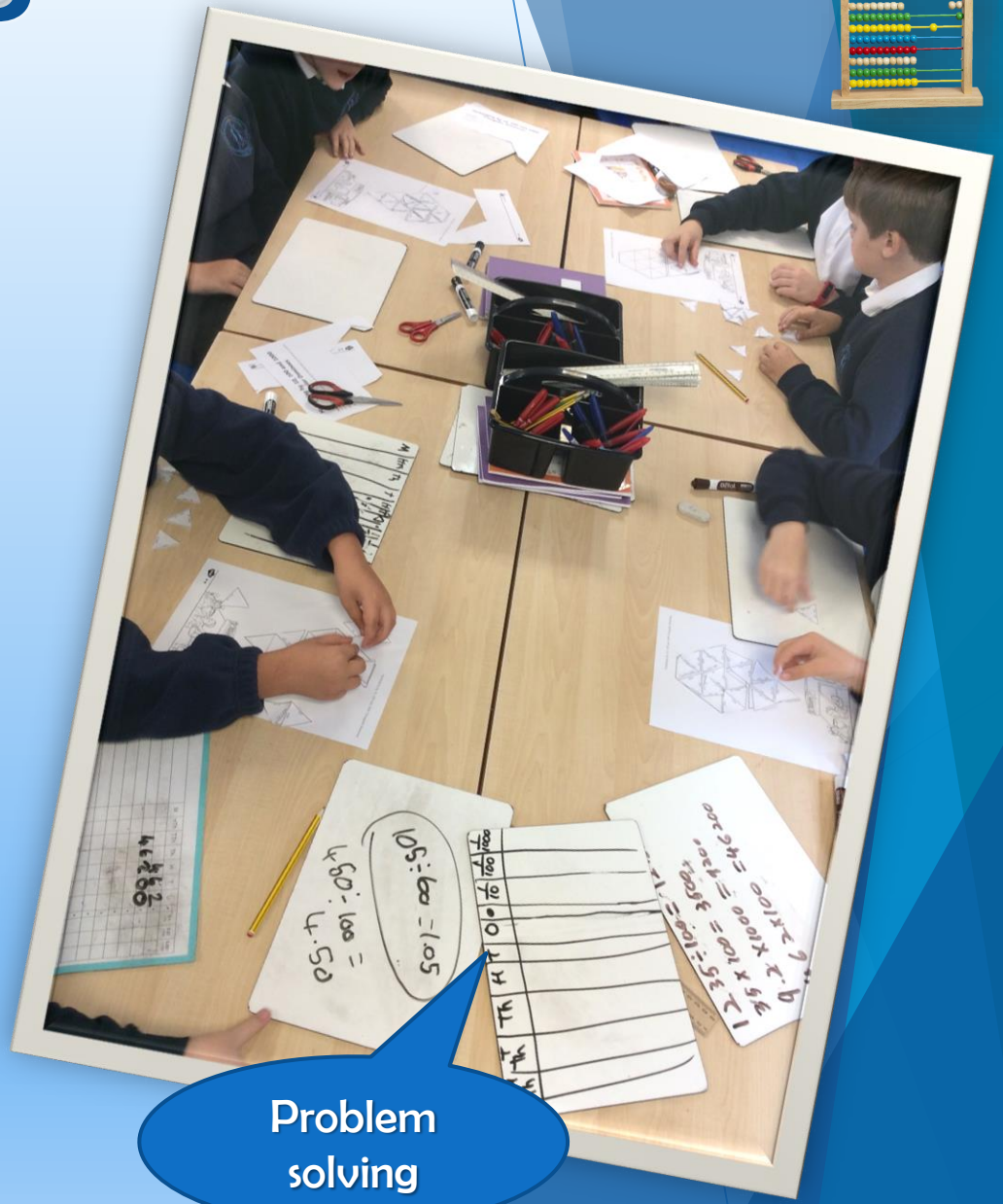




STANDARDS IN YEAR 5

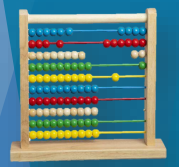
Collaborative learning

Interactive



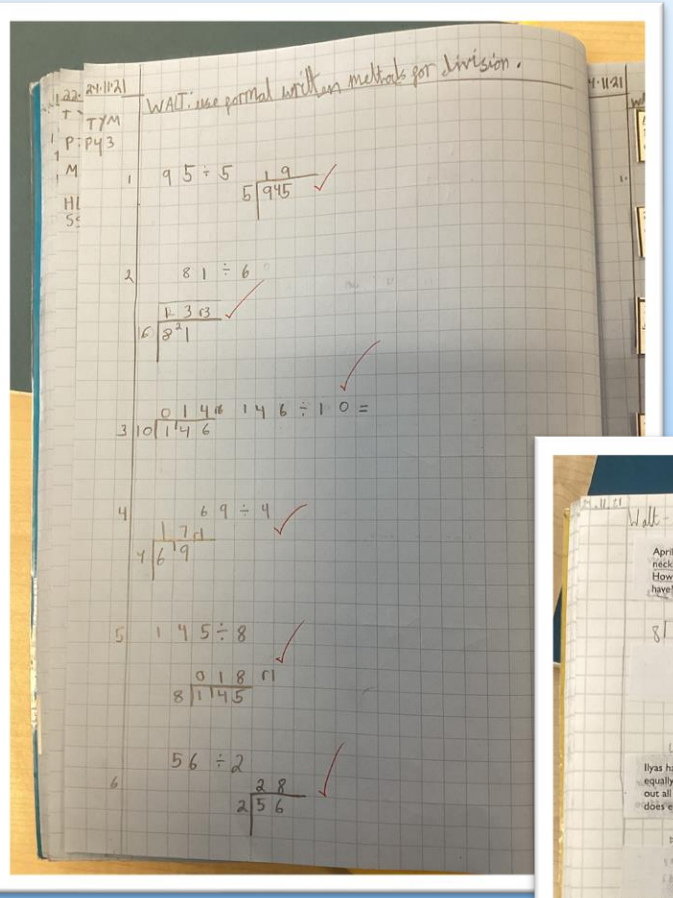
Problem solving

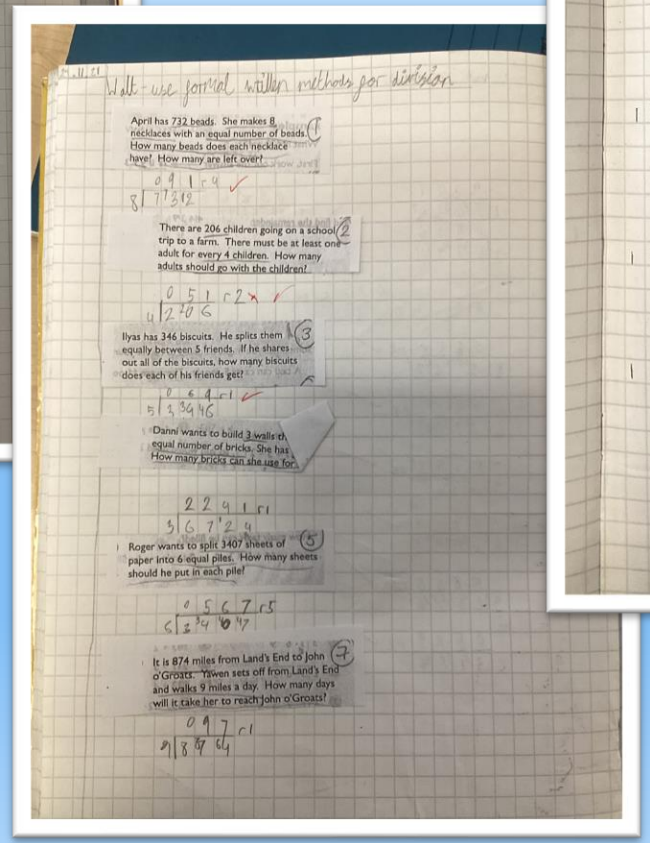
STANDARDS IN YEAR 5

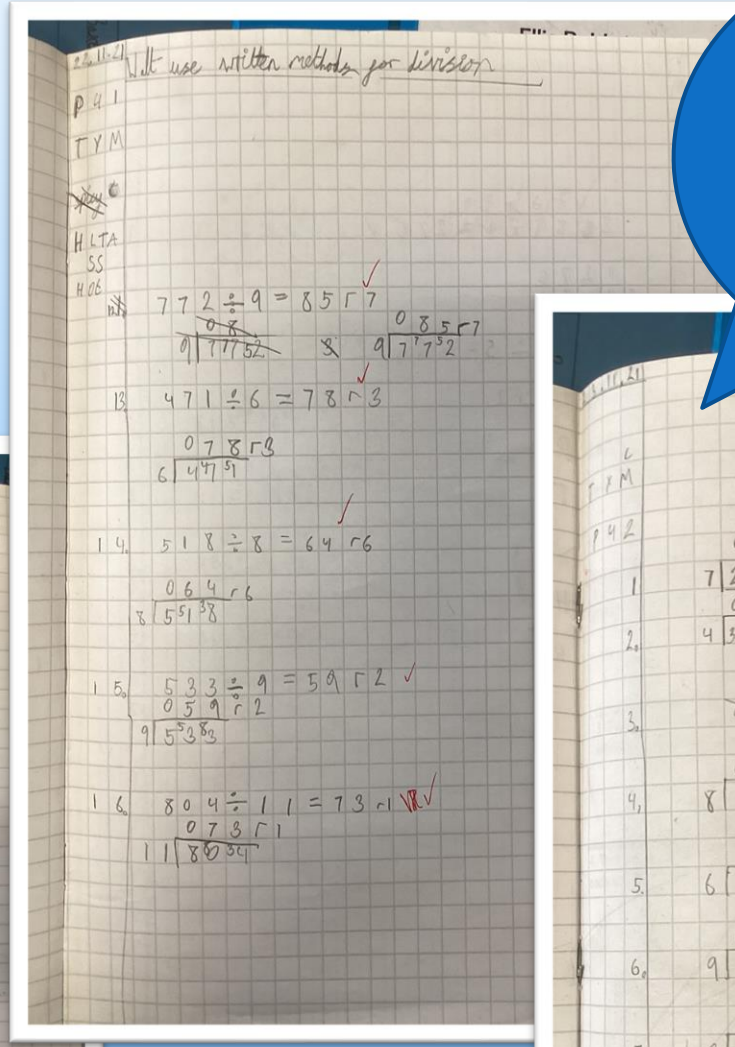


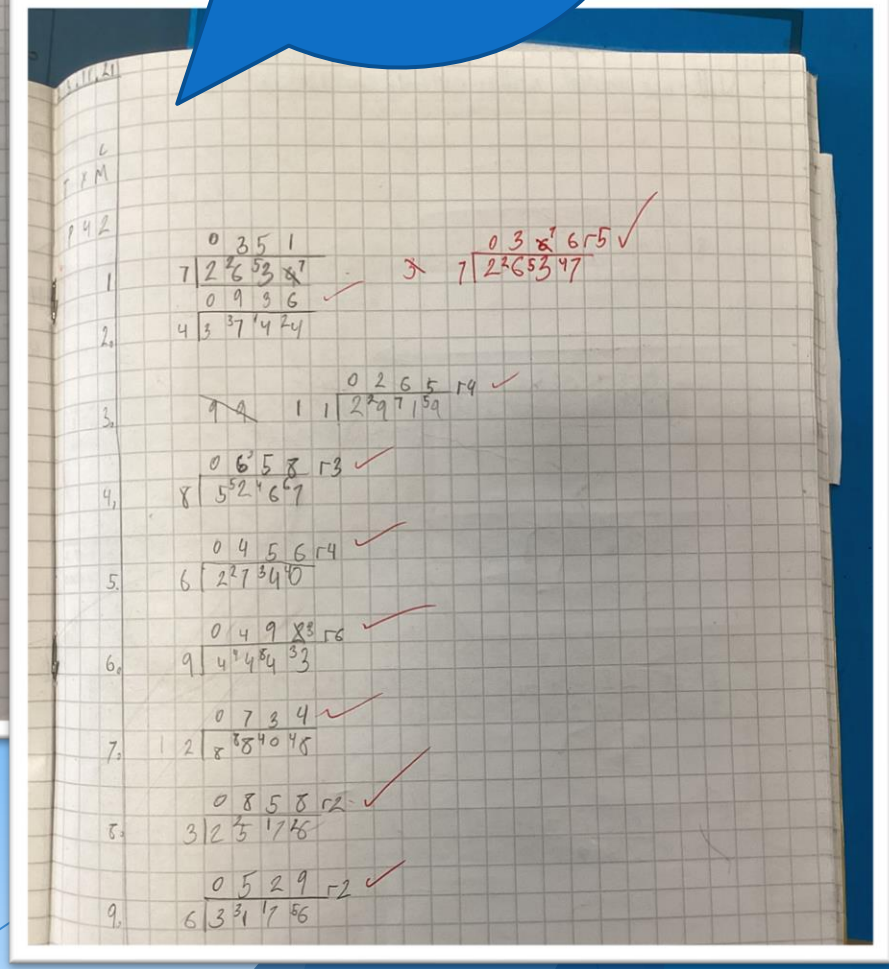
Division

Progression in Year 5



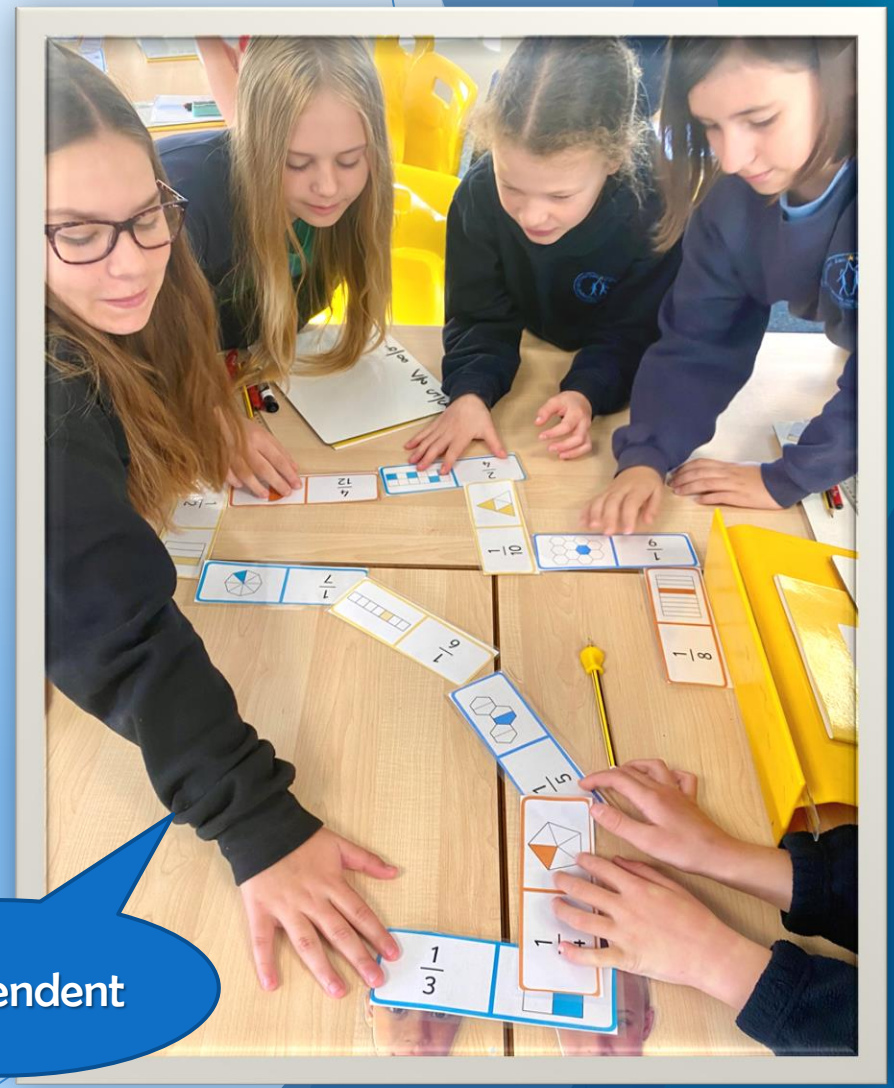






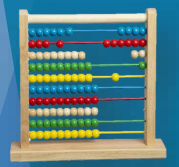
STANDARDS IN YEAR 6

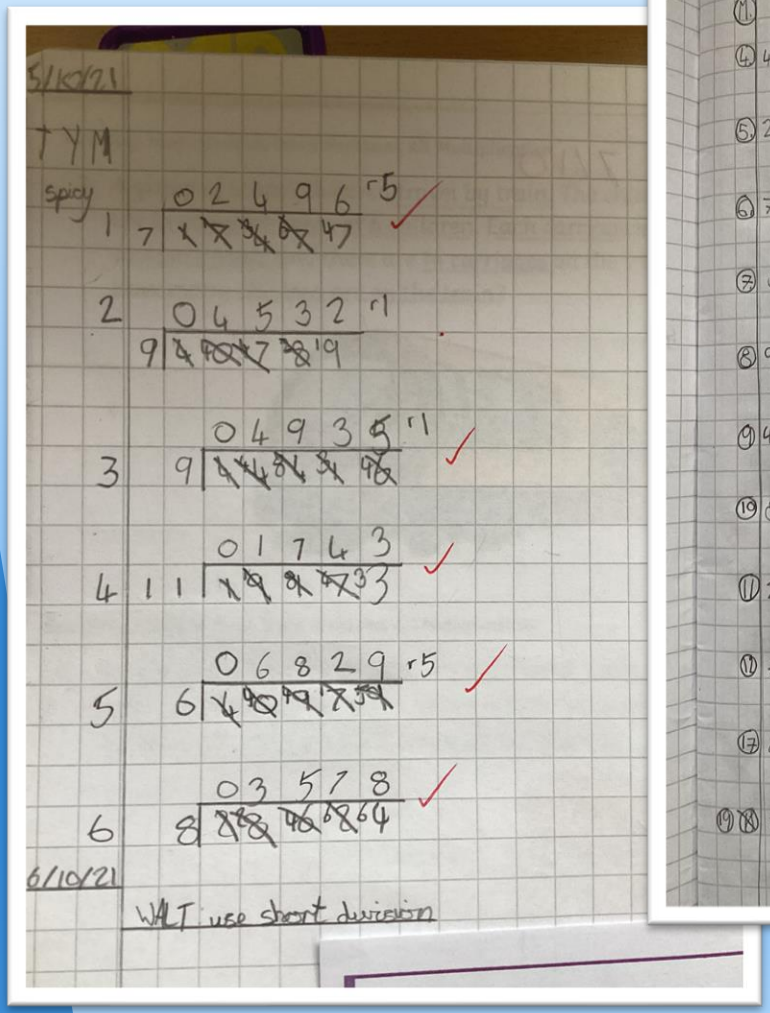
Interactive

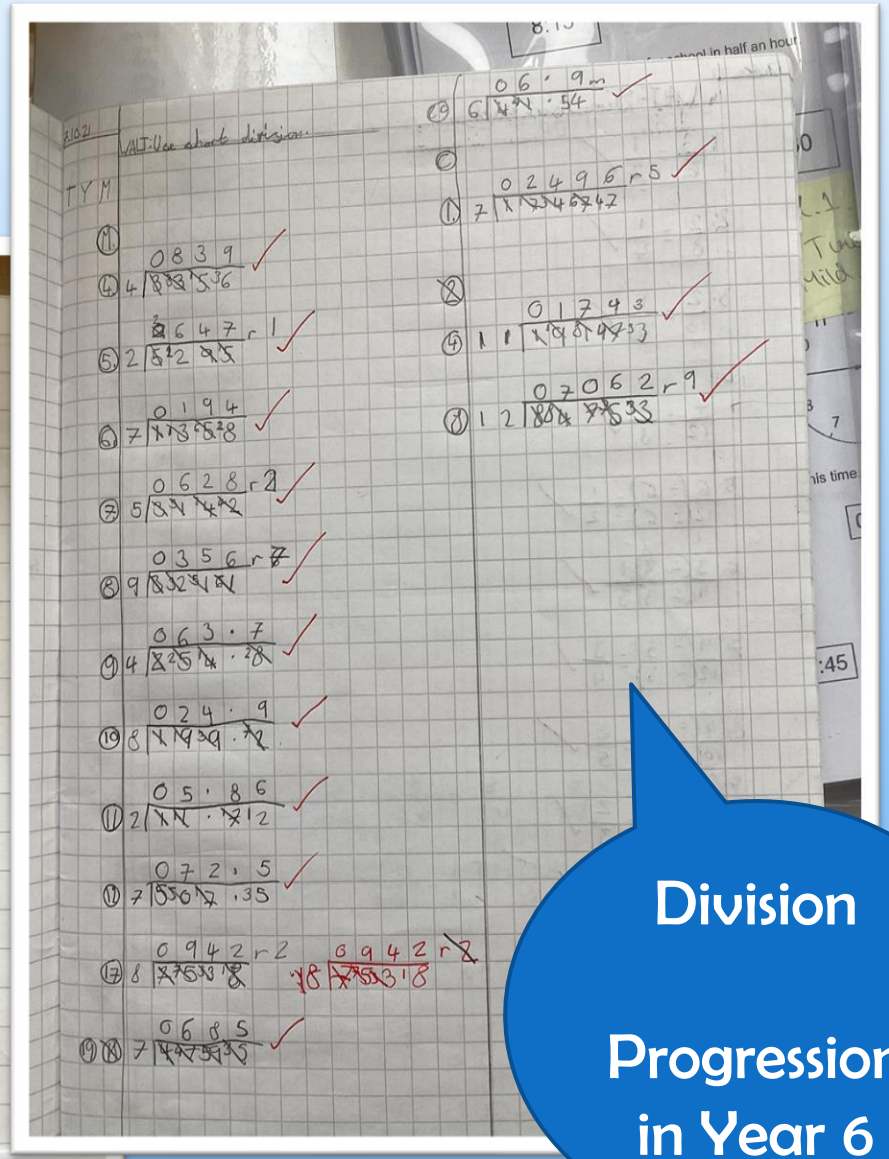


Independent

STANDARDS IN YEAR 6

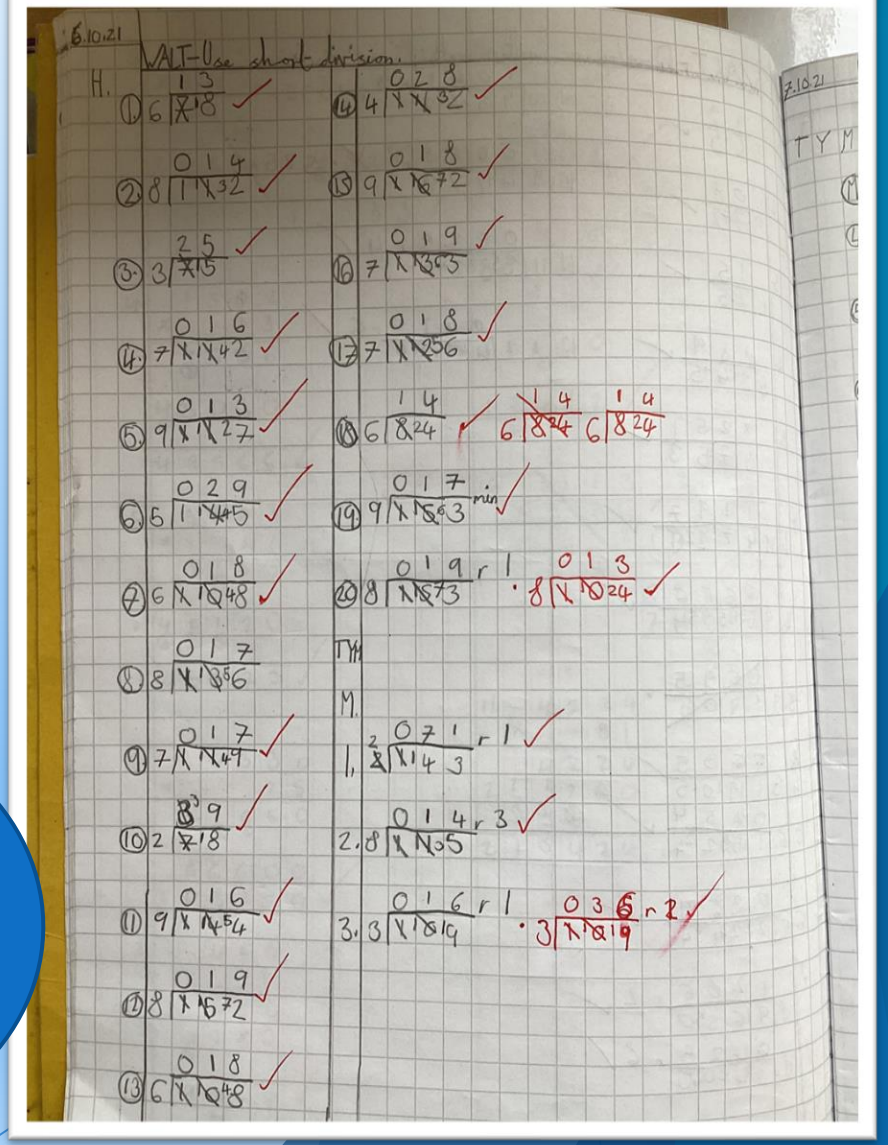




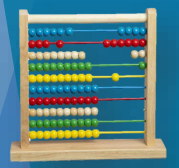


Division

Progression in Year 6



Pupil Voice



My favourite types of maths activities are....

I pregene when we are in groups.

I learn most in maths when...

I explain to my partner about it

I learn most in maths when...

I'm challenged

I learn most in maths when...

when I have a good night sleep

My favourite types of maths activities are...

Really, really hard maths.

I learn most in maths when...

I challenge myself

My favourite types of maths activities are....

Physical learning

My favourite types of maths activities are....

maths, etc on the playground

I learn most in maths when...

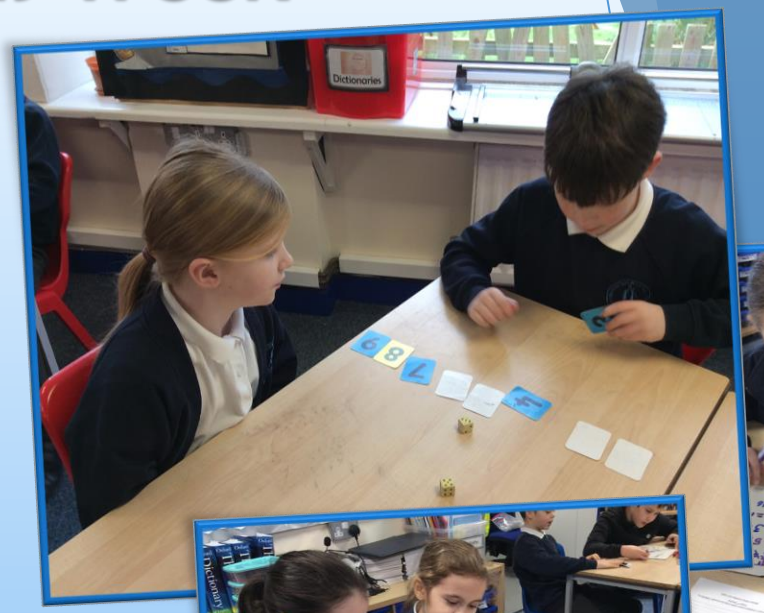
in working with a sensible partner

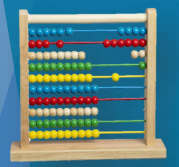
Maths at Southway could be improved by:

having more counters

Enrichment Opportunities – Maths Week

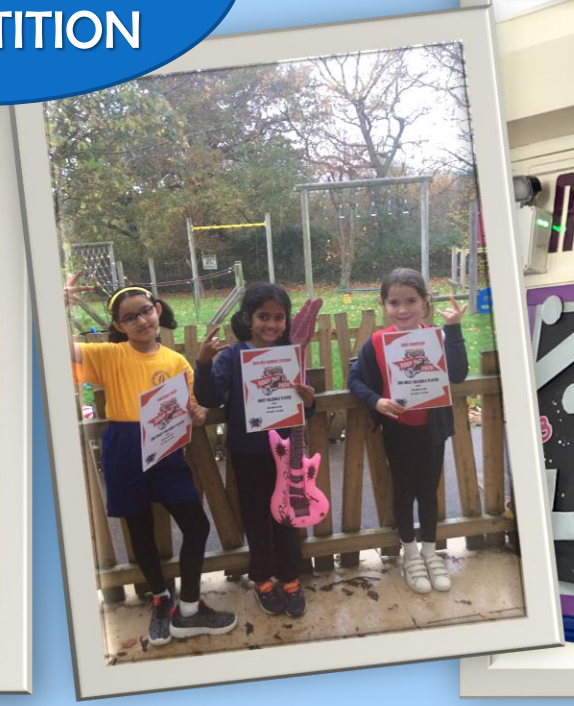
Throughout the week we had a maths quiz, a Times Tables Rockstars battle across the whole school and buddy maths, where we played games including Shut the Box and Countdown, with children from across the year group! We also had an opportunity to look at some wonderful maths related books, including Emily Gravett's 'The Rabbit Problem'. Over the week, each year group had a different mathematical task to complete. Year 3 had to create their own Zoo, making sure that they had enough money and space to buy a variety of different animals. Year 4 planned a theme park and had to make sure their plans included a variety of rides, whereas Year 5 planned day trips to London and Brighton, where they had to factor in the cost of different museums. Year 6 were put to work planning a day trip for their Isle of Wight residential and put forward different ideas based on cost and time spent at the different amusements. The culmination of the week was a visit from 'House of Maths', who tailored mathematical shows to each year group and wowed everyone!



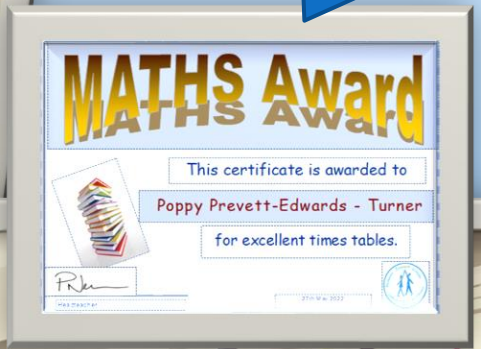


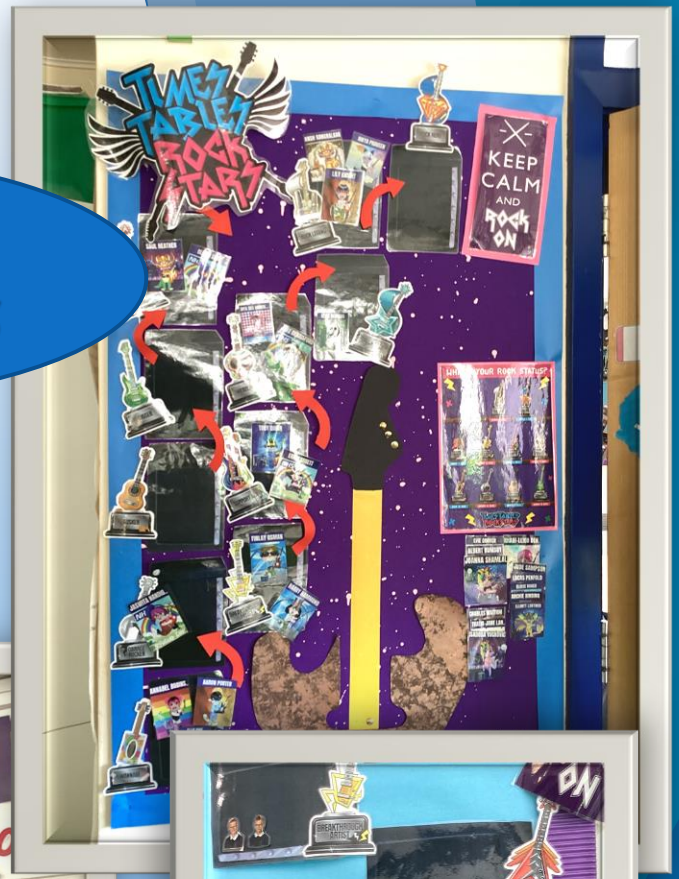
CELEBRATING SUCCESS

TIMES TABLES ROCKSTARS COMPETITION



HALF-TERMLY MATHS AWARDS





ROCKSTAR LEADER BOARDS