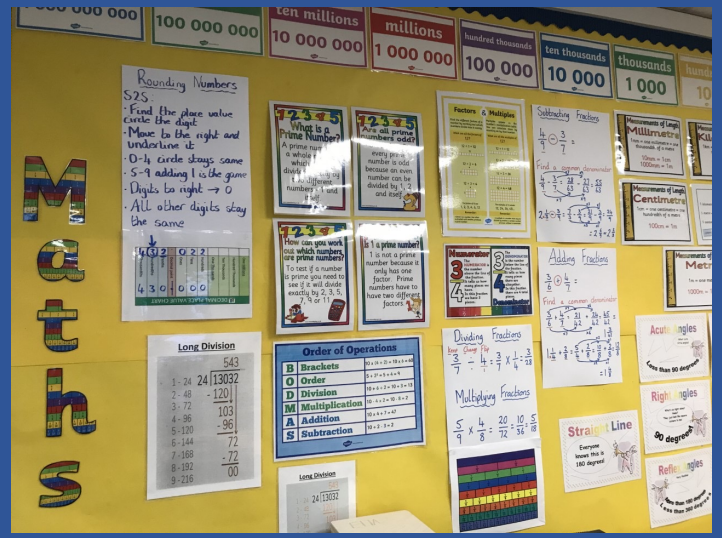
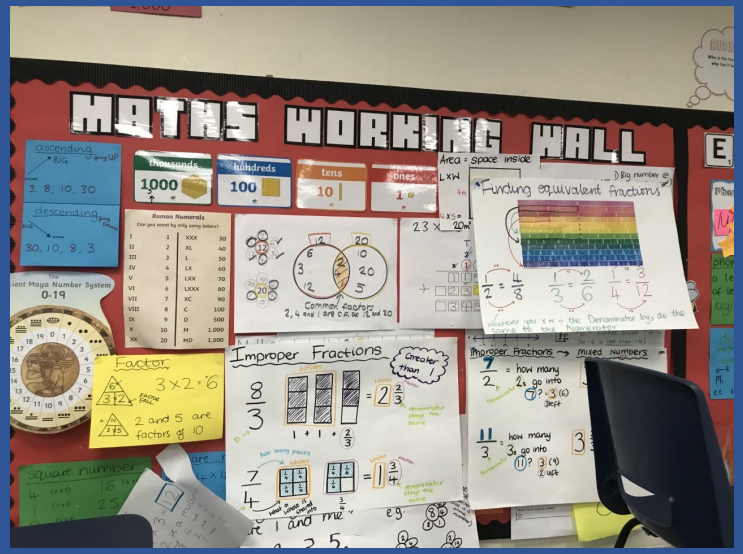
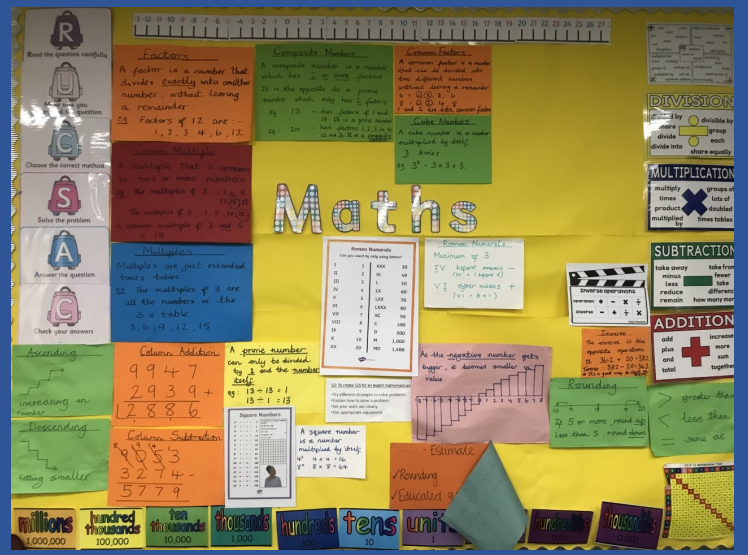
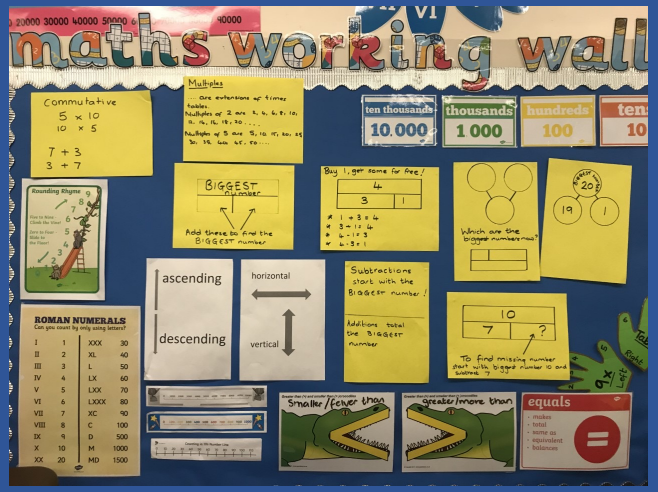
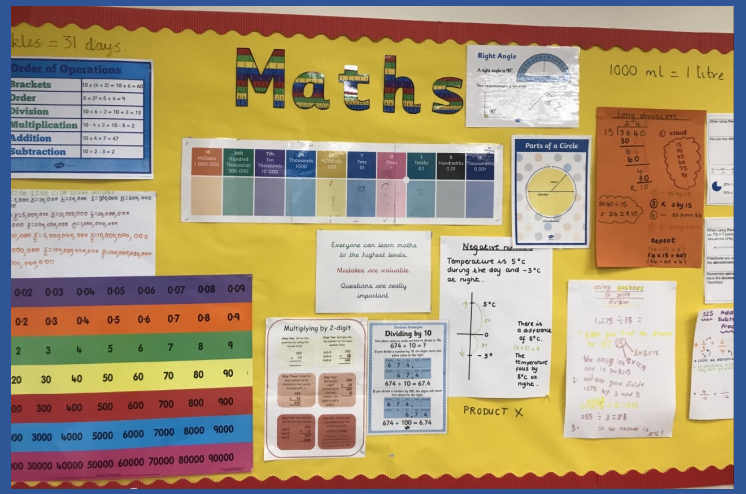
Maths at Fir Tree









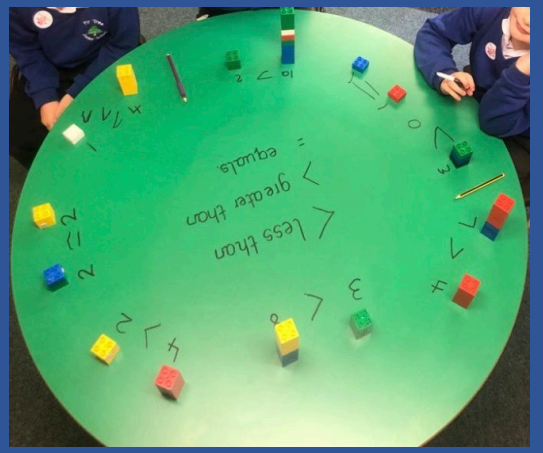


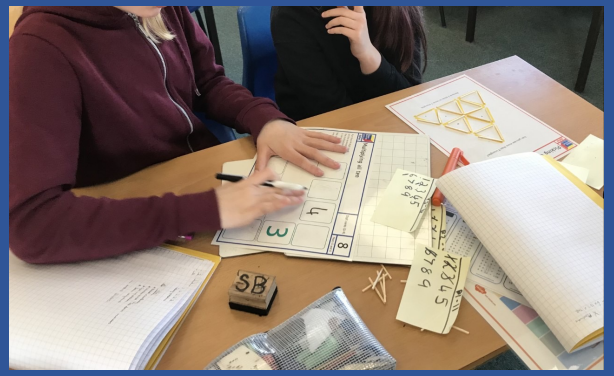
Hello!

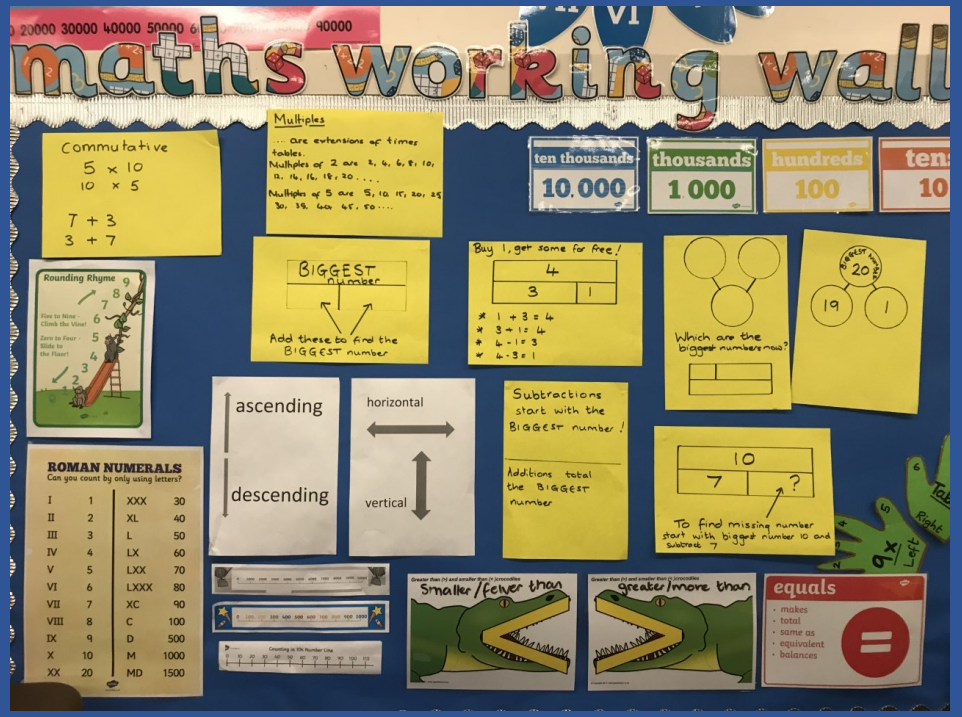
My name is Mrs Jackson and I am the Maths Subject Leader at Fir Tree.

The Maths Curriculum focusses on the following areas:

- Number – Number and Place Value
- Number – Addition and Subtraction
- Number – Multiplication and Division
- Number – Fractions
- Measurement
- Geometry – Properties of Shapes
- Geometry – Position and direction (not included in year 3)
- Statistics



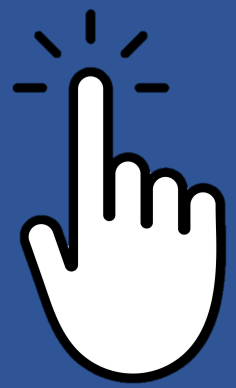




Intent

Mathematics is an important discipline that helps us to understand the world we live in. We want all pupils at Fir Tree Junior School to enjoy Mathematics and develop a sense of curiosity about the subject with a clear understanding.

At Fir Tree we promote a growth mindset; developing a 'can do attitude' so that the children are confident to have a go. We believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts through manageable steps. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems. At our school, the majority of children will be taught the content from their year group only; they will spend time learning the knowledge and skills and delving deeper into the subject so that they can apply their knowledge to solving more complex problems.



Click here to find our 'Fir Tree Curriculum' & 'Knowledge and Skills Progression' documents:

https://www.fir-tree-juniors.org/maths/

Implementation

Our whole curriculum is shaped by our school vision which aims to encourage all children to aspire to work hard and achieve high standards; to be independent and inquisitive learners.

We teach the National Curriculum, supported by a clear skills and knowledge progression. This ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children.

At Fir Tree we focus on 3 main areas: fluency, reasoning and problem solving; working with a variety of representations of number, so that children become confident and efficient when working with number. Children are taught the language skills necessary to explain their mathematical understanding and become efficient problem solvers; developing the characteristics to tackle investigations and the confidence to pursue their own lines of enquiry.

How is assessment used to develop learning through the curriculum?

Assessment is ongoing through questioning throughout the lesson to gauge children's understanding and marking with the class. This is then used to inform our future lessons. We have developed our marking policy to ensure we do as much marking with the children as possible as this appears to be the most effective way for the children to make progress.

Formal assessments take place once every long term and this is to see how the children work completely independently, find the areas of strength and more importantly the areas for development.

Impact

By the end of KS2 we aim for children to be **fluent** in the fundamentals of mathematics with a conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

They should have the skills to **solve problems** by applying their mathematics to a variety of situations with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios. Children will be able to **reason mathematically** by following a line of enquiry and develop and present a justification, argument or proof using mathematical language

The rings show the projects that link to Maths

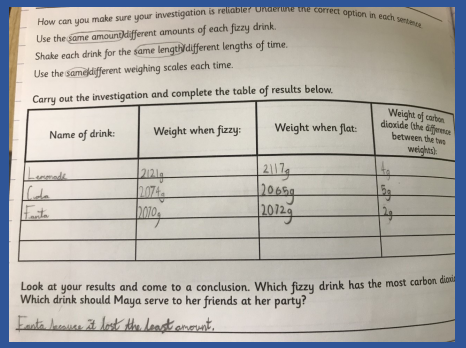
Fir Tree Curriculum Overview of Projects

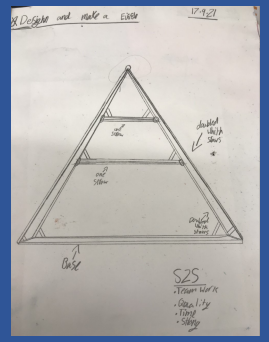
Most of the Science and Geography projects will have elements of maths in them in the form of measures (weights, volume, time) in Science and co-ordinates, distances and scale for Geography.

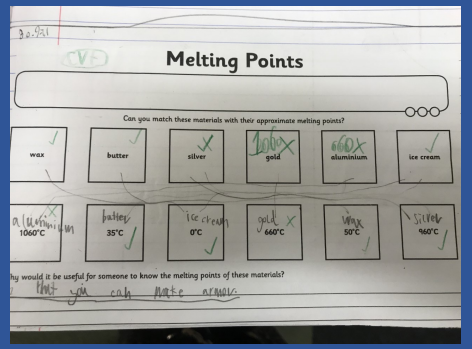
	Autumn Term		Spring Term		Summer Term	
	Term 1 (7w+2d)	Term 2 (7w)	Term 3 (7w)	Term 4 (6w)	Term 5 (5w)	Term 6 (6w+2d)
Year 6	Take One Picture **(Art)** Macbeth **(Shakespeare)** The Origin of Species - Evolution and Inheritance **(Science)**	Lest We Forget – Remembrance **(History and Geography)** Shine A Light – Light **(Science)**	Take One Piece **(Music)** Awesome Egyptians **(History and Geography)** Animal Architects - Living Things and their Habitats **(Science)**	Take One Tale **(English)** Staying Alive - Animals Including Humans **(Science)**	From Past to Present - UK **(Geography)** Innovative Inventors - Working Scientifically **(Science)**	Shocking Electricity - Electricity **(Science)** The Prince of Egypt - Production
Year 5	Take One Picture **(Art)** Hamlet **(Shakespeare)** Phenomenal Forces - Forces **(Science)**	Out of this World - Earth and Space **(Science)** The World From Above – Ordinance Survey Maps **(Geography)**	Take One Piece **(Music)** Majestic Mayans **(History and Geography)** Growing and Changing - Animals, Including Humans **(Science)**	Extreme Earth **(Geography)** The Circle of Life - Living Things and their Habitats **(Science)**	Take One Tale **(English)** The Godly Greeks **(History and Geography)** Sensational Scientists - Working Scientifically **(Science)**	Victorious Victorians **(History)** From Yorkshire to Mexico **(Geography)** Terrific Transformations - Properties and Changes of Materials **(Science)**
Year 4	Take One Picture **(Art)** River Journey – States of Matter **(Science and Geography)**	Magnificent Mappers **(Geography)** Digesting Digestion – Animals, Including Humans **(Science)**	Take One Piece **(Music)** Production Bright Sparks - Electricity **(Science)**	A Midsummer Night's Dream **(Shakespeare)** Listen Up - Sound **(Science)**	Take One Tale **(English)** Creepy Crawlies – Living Things and their Habitats **(Science)**	Vicious Vikings **(History and Geography)** Inventors and Discoveries – Working Scientifically **(Science)**
Year 3	Take One Picture **(Art)** The Stone Age **(History)** Beneath My Feet – Rocks and Fossils **(Science)**	Extraordinary Journeys **(Geography)** Luminous Light - Light **(Science)** Nativity **(RE)**	Take One Piece **(Music)** The Great Invasion - Romans **(History and Geography)** Exciting Experiments - Working Scientifically **(Science)**	The Iron Man **(English)** May The Force Be With You – Forces and Magnets **(Science)** Marvelous Maps **(Geography)**	Take One Tale **(English)** Amazing Bodies – Animals, Including Humans **(Science)**	The Tempest **(Shakespeare)** Wonderful Wallingford **(History)** Roots and Shoots - Plants **(Science)**

Fir Tree Projects

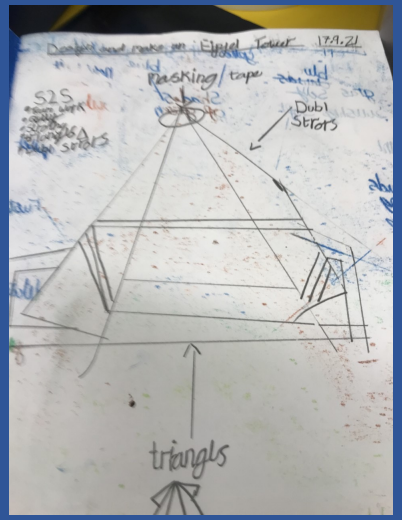
Although the maths curriculum is taught discretely - ensuring the skills and knowledge are embedded within each year group - maths is used whenever possible within other subjects.

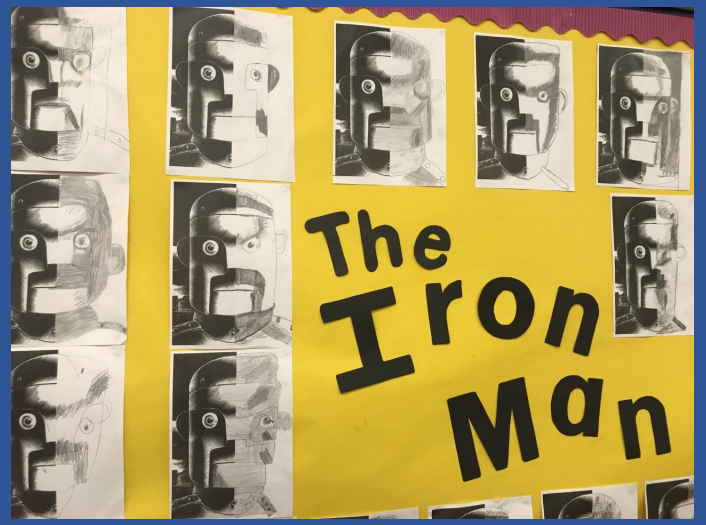


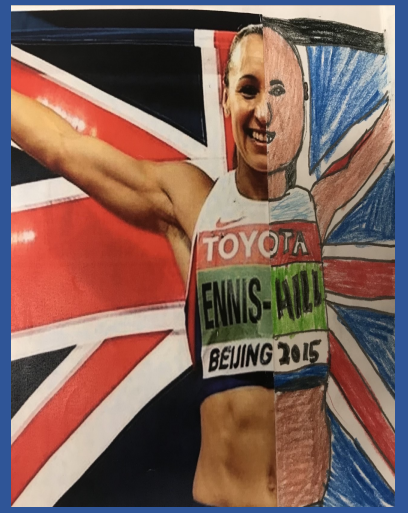


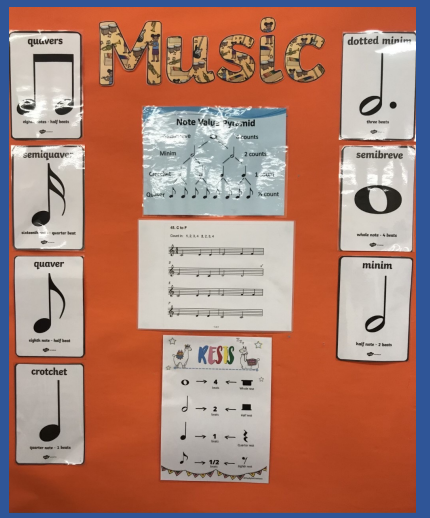


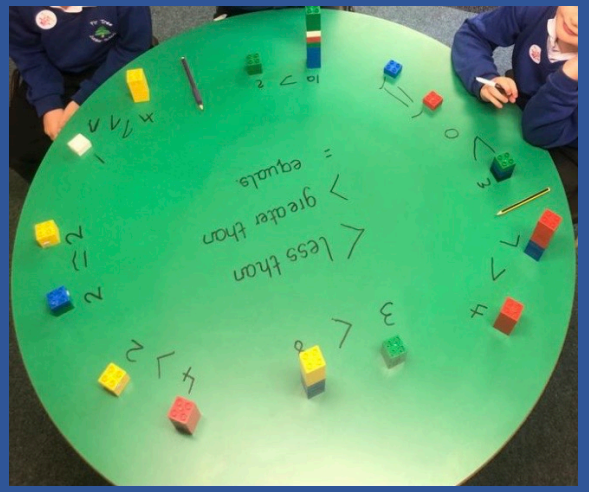
Art, Science, DT and Music are just some of the subjects where Maths is used.

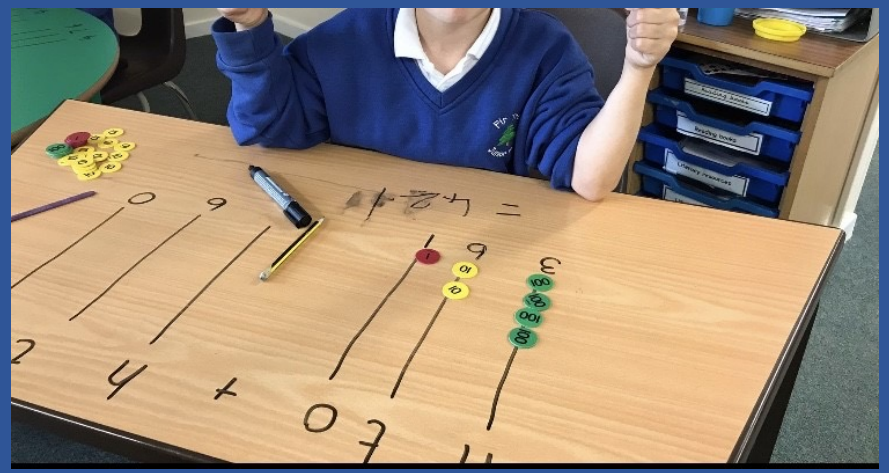


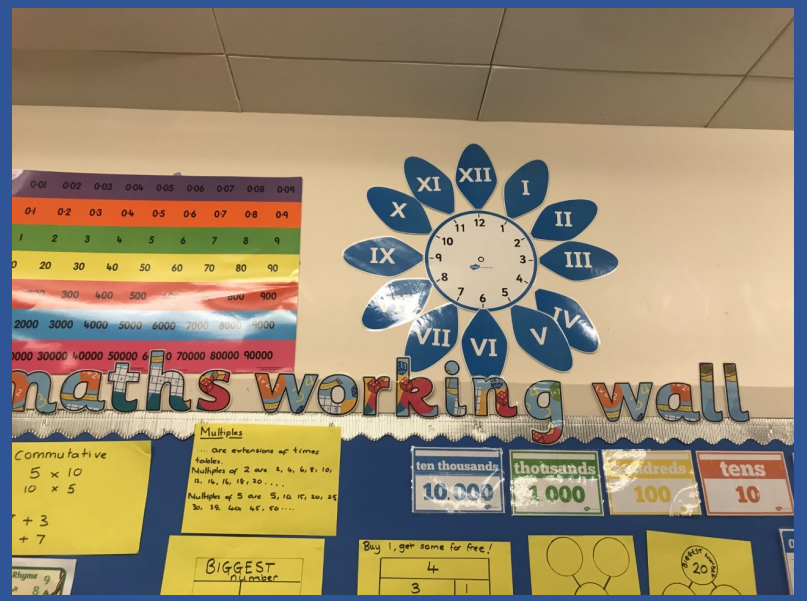


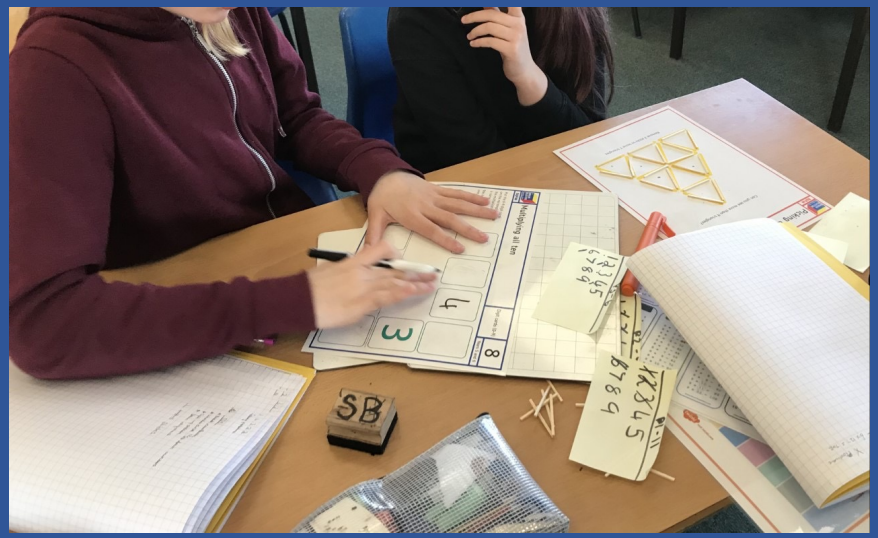


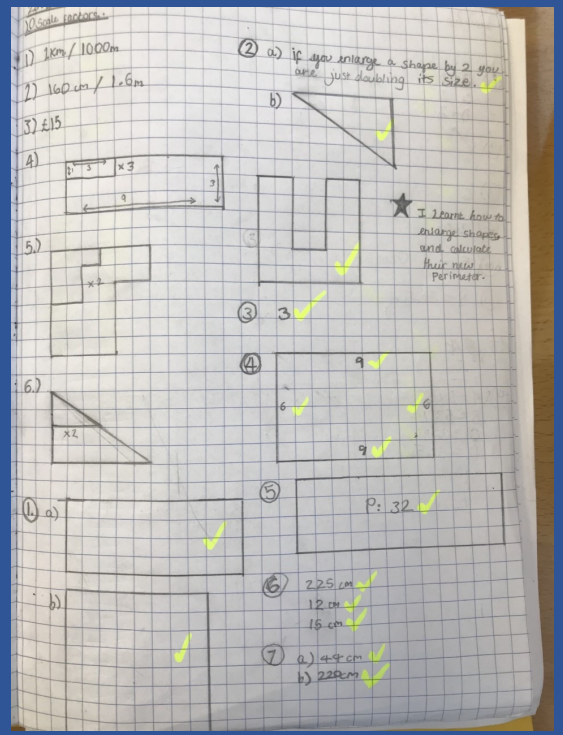


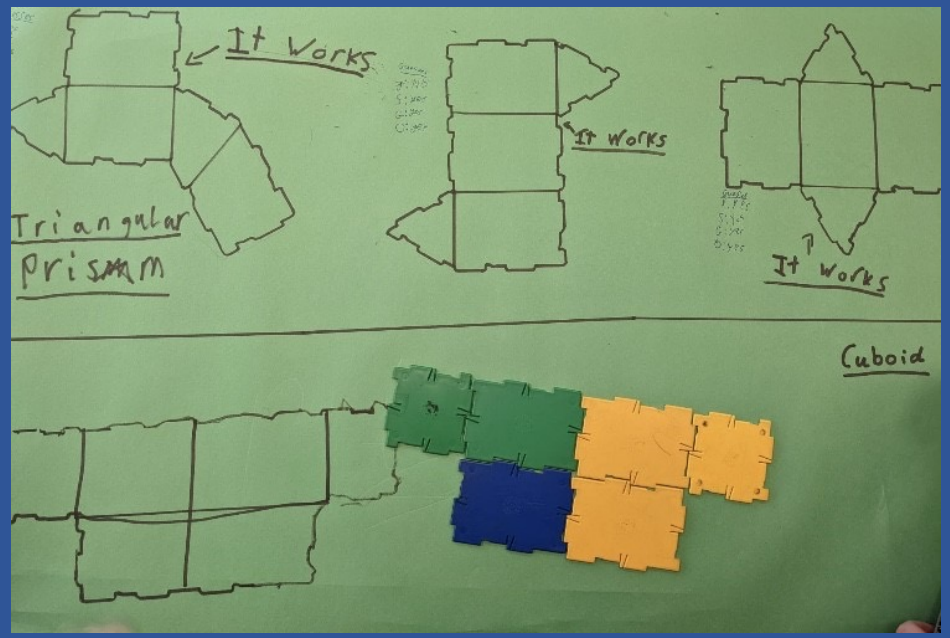












Opportunities to use resources and to discuss mathematical thinking is essential to embed learning.

Quotes from the children

I find maths exciting because you get to learn new things. I like problem solving because it gives me challenges.

The teachers explain things really well. I really like maths.

I love the challenges. When you get into the rhythm of solving a problem you don't want to stop!

I enjoy maths because we can choose a level that suits us. My favourite area of maths is fractions because they just make my brain boil with calculations.

I didn't used to like maths but I do now because times tables and problem solving give me a challenge. I write extra questions at home for myself to do.

I love maths because it is fun – it bends your brain in unusual ways and it is exhilaratingly hard in a fun way because if I need help teachers will help me.