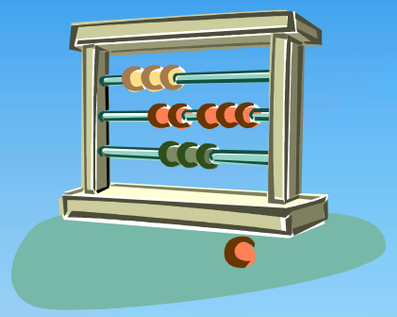
Belleville Primary School



Maths

Parent workshop KS1

Belleville School Aims

- All children are excellent learners
- All children have excellent social and emotional skills
- All children fulfill their potential

Aims of the Hour

- To inform you of the contents of the mathematics curriculum
- Highlight end goals
- To share strategies you may want to use when supporting your child at home

Current curriculum

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Current curriculum

- Focus on mastering essential arithmetic at an early stage
- New emphasis on problem solving, practice and fluency
- Number bonds to 20 by year 2
- Multiplication tables (up to 12x12) by end of year 4
- Arithmetic, numbers, fractions, decimals and percentages at the heart

Key stage 1

- Pupils develop confidence and mental fluency with whole numbers, counting and place value.

- Working with numerals, words and the four operations

- Including practical resources [for example, concrete objects and measuring tools].

Key stage 1

- Develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary.
- Use a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

Key stage 1

- By the end of year 2, pupils should know the number bonds to 20

- Be precise in using and understanding place value.

- Practice at this early stage will aid fluency

Key stage 1

- Read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Spoken language

The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically.
The quality and variety of language that pupils hear and speak are key factors in developing their **mathematical vocabulary** and presenting a **mathematical justification**, **argument** or **proof**.
They must be assisted in **making their thinking clear** to themselves as well as others and teachers should ensure that pupils **build secure foundations** by using **discussion** to **probe** and **remedy** their **misconceptions**.

Current curriculum

- One set of mathematical concepts and big ideas for all.
- **All** pupils need access to these concepts and ideas and to the rich connections between them.
- There is a need for **all** pupils to master the curriculum and for some to gain greater depth of proficiency and understanding.
- Challenge is provided by going deeper rather than accelerating into new mathematical content.
- Mathematics is mathematics and the key ideas and building blocks are important for everyone.

Current curriculum

- Mastery is not just being able to memorise key facts and procedures and answer test questions accurately and quickly.
- It involves knowing ‘why’ as well as knowing ‘that’ and knowing ‘how’. It means being able to use one’s knowledge appropriately, flexibly and creatively and to apply it in new and unfamiliar situations.

Belleville Research

- The review of the curriculum looked at the curricular of **high performing countries** in mathematics - those which regularly out-perform us in international tests like PISA
- Visits to Shanghai, Singapore and Finland by head, senior leaders and maths team
- Textbook in mathematics- mini trial in Year 4 2013/14
- Trial in Year 1 class, across Year 1, Years 2 and 3 in 2014/15

Training

- Over 18 videos totaling 600 minutes watched
- Teachers and senior leaders visited Singapore and Shanghai
- Singapore and Shanghai visitors to Belleville
- Ongoing support provided by senior leaders

Challenge

- Development **of deep** mathematical knowledge
- Showing secure understanding in learning

To Master Ideas

- I know how to do it
- It becomes automatic and I don’t need to think about it
- I’m really good at doing it
- I can show someone else how to do it.

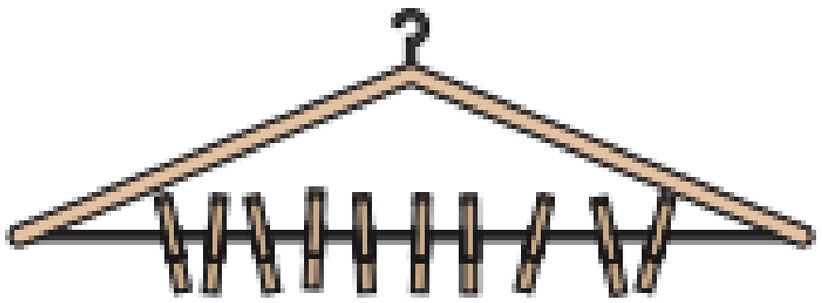
To Master Ideas Number

- I am going to count backwards in twos from 20. How many steps will it take to reach 0? Convince me.

- ‘When I count in tens from any number the units digit stays the same.’ Do you agree? Explain your reasoning.

To Master Ideas
Addition and Subtraction

If each peg on the coat hanger has a value of 10, find three ways to partition the pegs to make the number sentences complete.



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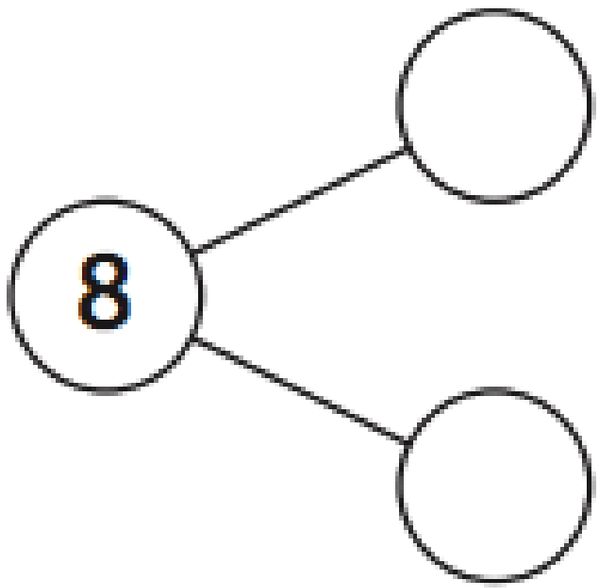


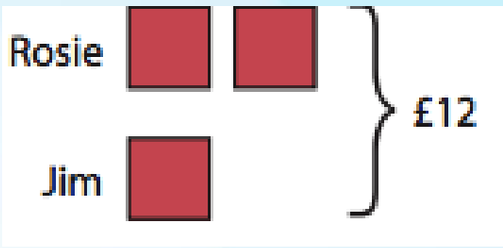
To Master Ideas
Multiplication and Division

- Year 2: 2, 5, 10

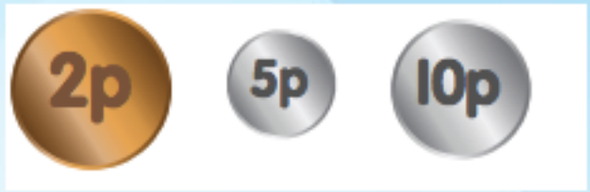
To Master Ideas Multiplication and Division

- Baking
- 5, 10,… , 20, ,… ,

Together Rosie and Jim have £12.
Rosie has twice as much as Jim.
How much does Jim have?
12 divided by 3 = 4
•Jim has £4



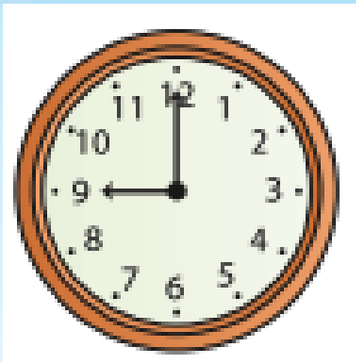
To Master Ideas
Money



Can you show how to make …p?
How many ways?
How do you know?

To Master Ideas Time

Wake up at…



School starts at…

Brownies/ rainbows finishes at…

To Master Ideas Statistics

Forget cars in a car park, make car journeys fun!

Cars in the car park on Monday at 10 o'clock	
Red	𝍸 |
Blue	𝍸
Black	𝍸 𝍸 |||
Silver	𝍸 𝍸 ||
White	𝍸 ||
Other	𝍸 ||||