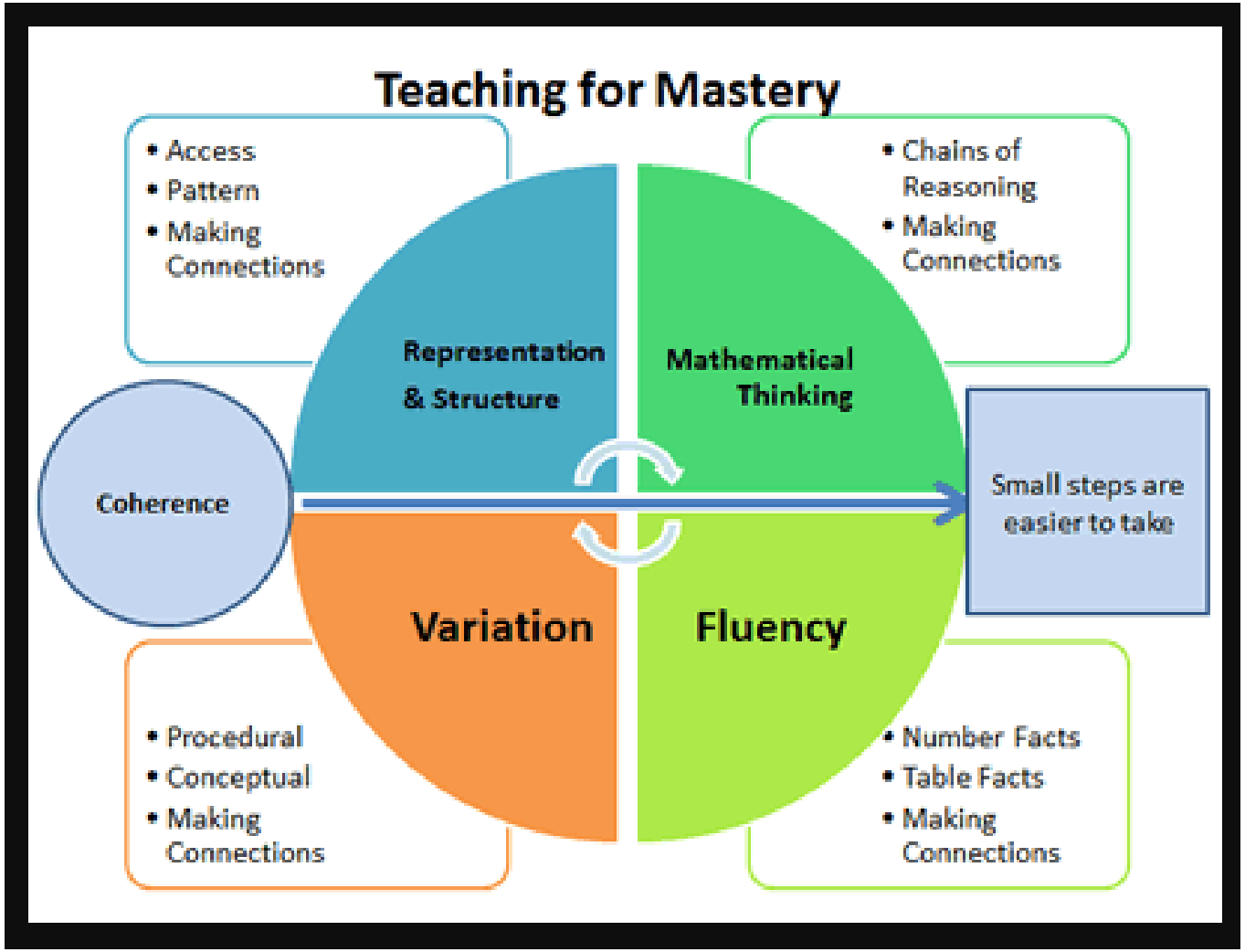
Mastery Maths at Inglewood
September 2021

Maths Mastery – The five big ideas



Maths Mastery – The five big ideas

A true understanding of these ideas will probably come about only after discussion with other teachers and by exploring how the ideas are reflected in day-to-day maths teaching, but here's a flavour of what lies behind them:

- Coherence

Lessons are broken down into small connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts.

- Representation and Structure

Representations used in lessons expose the mathematical structure being taught, the aim being that students can do the maths without recourse to the representation

- Mathematical Thinking

If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others

- Fluency

Quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics

- Variation

Variation is twofold. It is firstly about how the teacher represents the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow up practice, paying attention to what is kept the same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

- *The Five Big Ideas were first published by the NCETM in 2017.*

Our work with the maths hub…

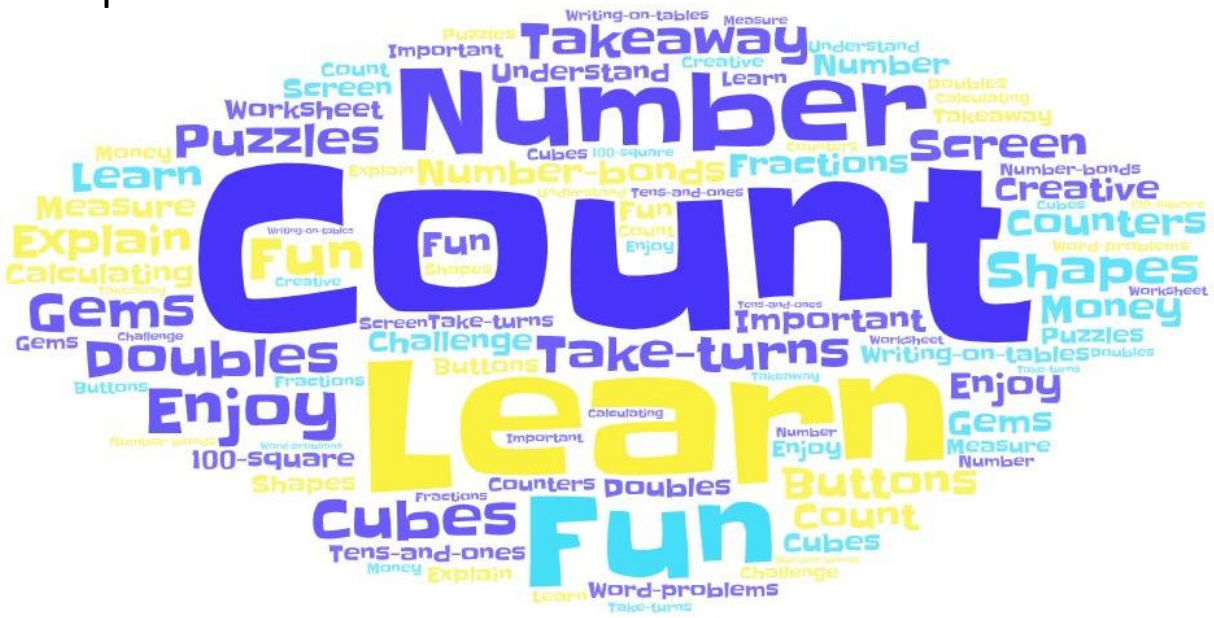
We are now entering the development phase.

What have we done this year?

- Surveyed staff, parents and pupils to create a shared vision for maths.

Parents :

Pupils :



Staff:

Our shared vision :

- Mathematics at Inglewood is practical and enjoyable, giving our children opportunities to explore and engage with challenging maths in meaningful contexts.

Mathematical Vocabulary Progression

Inglewood Community Nursery & Infant School
Mathematical Vocabulary Progression

This document sets out the Early Years Foundation Stage and Key Stage (KS) 1 vocabulary progression under the National Curriculum.

The vocabulary will be used during lessons to ensure all children understand the definition of vocabulary matching the knowledge and skill being taught. Teachers will check pupils' understanding of new vocabulary as it is introduced and throughout each year.

Geometry (position and direction)	Position, over, under, above, below, top, bottom, side, on, in, outside, inside, around, in front, behind, front, back, beside, next to, opposite, apart, between, middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways, across, next to, close, near, far, along, through, to, from, towards, away from, movement, slide, roll, turn, stretch, bend, whole turn, half turn
Geometry (properties of shape)	Shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, size, bigger, larger, smaller, symmetrical, pattern, repeating pattern, match Corner, side, rectangle (including squares) circle, triangle Face, edge, vertex, vertices, cube, pyramid, sphere, cone

Progression Documents – On our website

EYFS progression in maths

- typical-progression-cardinality-and-counting.pdf
- typical-progression-comparison.pdf
- typical-progression-composition.pdf
- typical-progression-measures.pdf
- typical-progression-pattern.pdf
- typical-progression-shape-and-space.pdf

Key stage 1 progression in maths

- progression-map-place-value.pdf
- progression-map-addition-and-subtraction.pdf
- progression-map-multiplication-and-division.pdf
- progression-map-fractions.pdf
- progression-map-geometry-properties-of-shapes-and-position-direction-and-movement.pdf
- progression-map-measurement.pdf
- progression-map-statistics.pdf

Progression Documents – sample extracts

National Centre for Excellence in the Teaching of Mathematics

Early Years Typical Progression Chart with additional guidance for practitioners

Cardinality and Counting

The cardinal value of a number refers to the quantity of things it represents, e.g. the numerosity, 'howmanyness', or 'threeness' of three. When children understand the cardinality of numbers, they know what the numbers mean in terms of knowing how many things they refer to. Counting is one way of establishing how many things are in a group, because the last number you say tells you how many there are. Children enjoy learning the sequence of counting numbers long before they understand the cardinal values of the numbers. Subitising is another way of recognising how many there are, without counting.

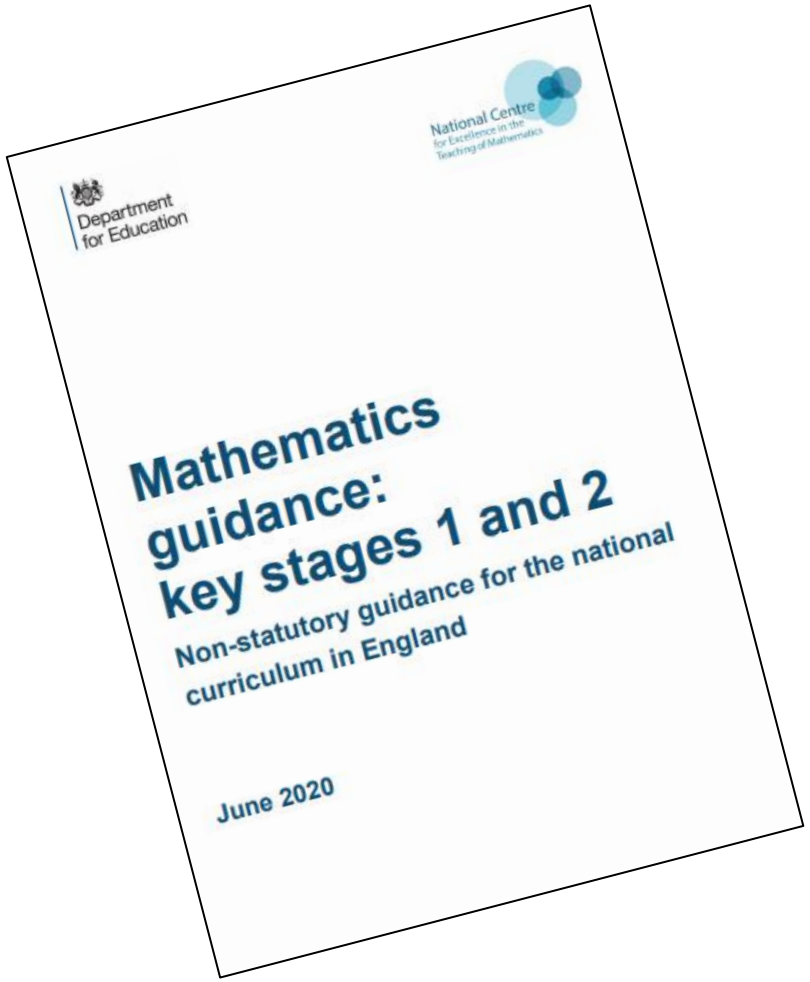
	Activities and opportunities	Practitioner notes
Counting: saying number words in sequence		
Children need to know number names, initially to five, then ten, and extending to larger numbers, including crossing boundaries 19/20 and 29/30. Counting back is a useful skill, but young children will find this harder because of the demand it places on the working memory.	• counting backwards, for example *number rhymes* • starting from different numbers.	
Counting: tagging each object with one number word		
Children need lots of opportunities to count things in irregular arrangements. For example, how many play people are in the sandpit? How many cars have we got in the garage? These opportunities can also include counting things that cannot be seen, touched or moved.	• counting things of different sizes – this helps children to focus on the numerosity of the count • counting things that can't be seen, such as sounds, actions, words • counting things that cannot be moved, such as pictures on a screen, birds at the bird table, faces on a shape.	

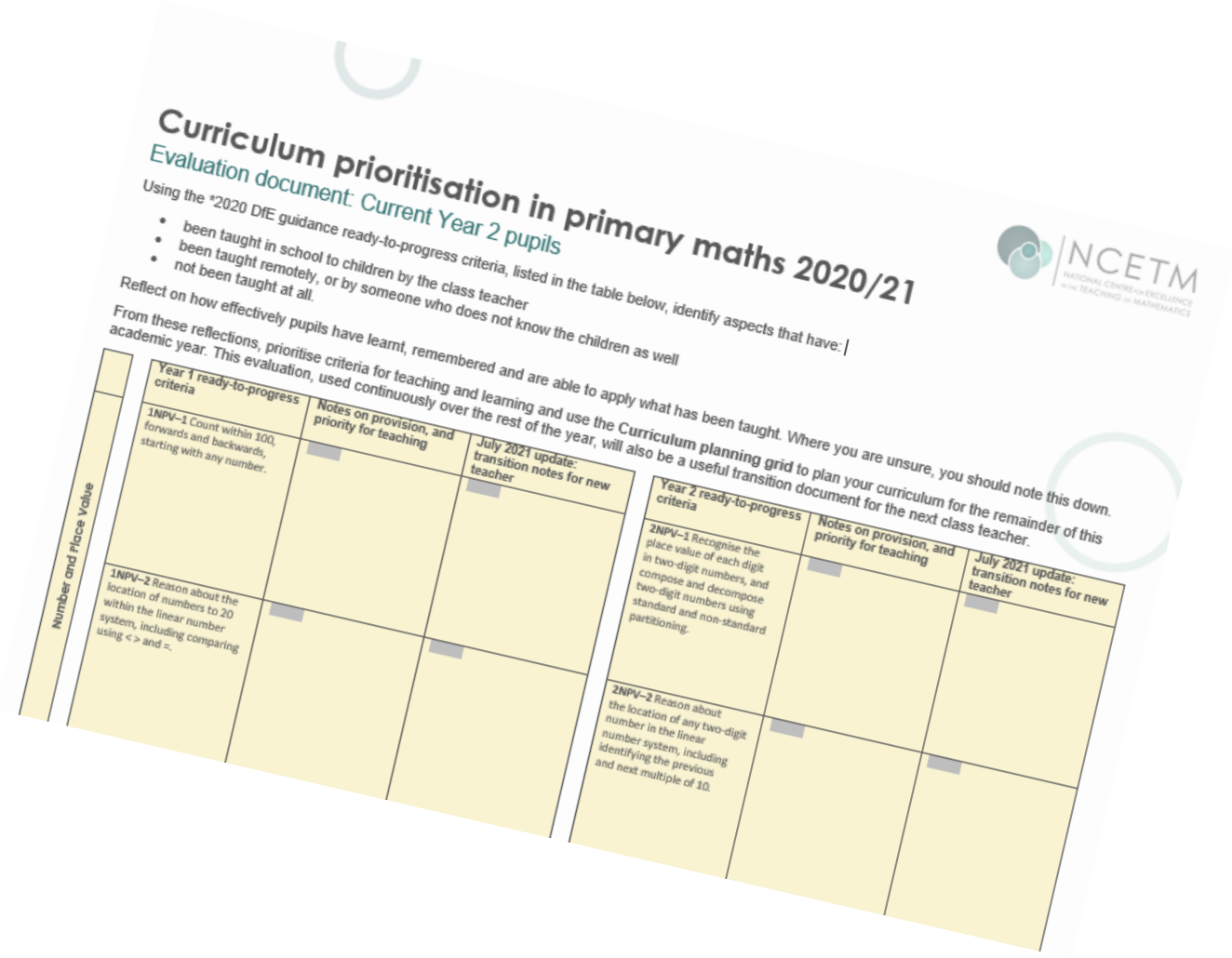
Number: Addition and Subtraction

National Centre for Excellence in the Teaching of Mathematics

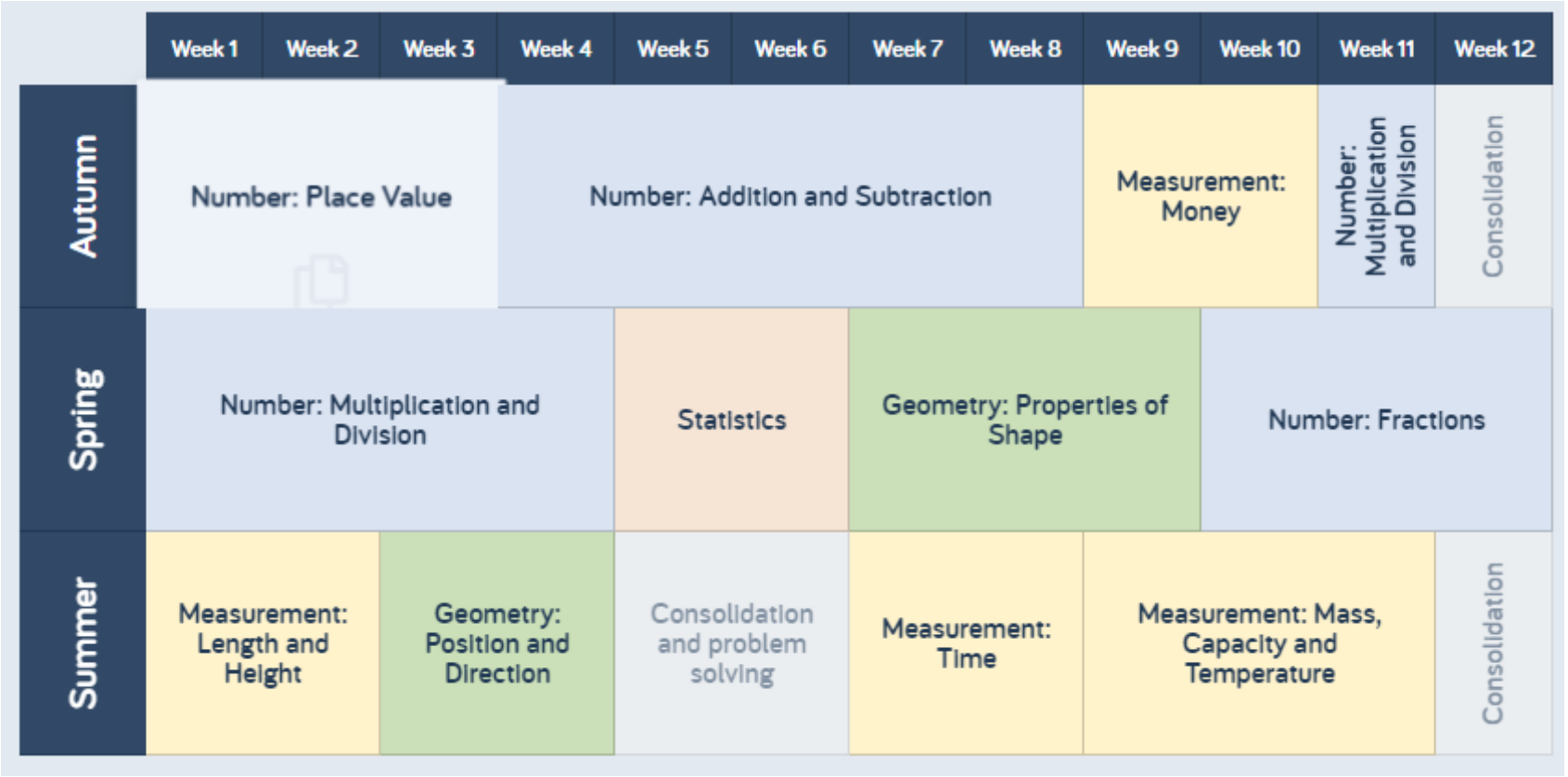
NUMBER BONDS	
Year 1	Year 2
represent and use number bonds and related subtraction facts within 20	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
add and subtract one-digit and two-digit numbers to 20, including zero	add and subtract numbers using concrete objects, pictorial representations, and mentally, including: * a two-digit number and ones * a two-digit number and tens * two two-digit numbers * adding three one-digit numbers
read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods)	show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
WRITTEN METHODS	
read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation)	
	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
PROBLEM SOLVING	
solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$	solve problems with addition and subtraction: * using concrete objects and pictorial representations, including those involving numbers, quantities and measures * applying their increasing knowledge of mental and written methods
	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement)

Ready to progress / Prioritisation
What action did we take ?



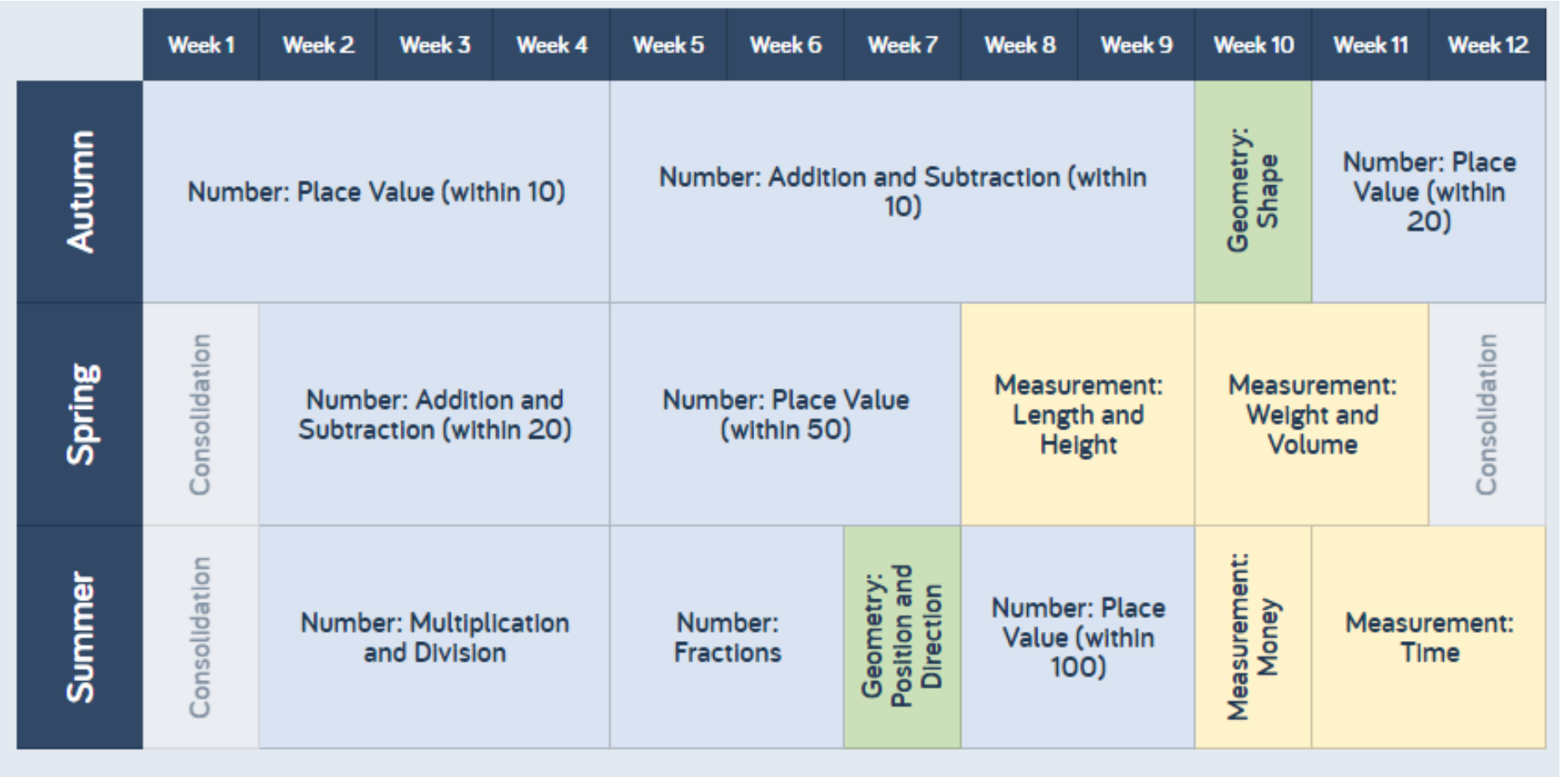


Year 2



- We made alterations to the summer term plan and focused on revising the four operations.

Year1



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)				Number: Addition and Subtraction (within 10)					Geometry: Shape	Number: Place Value (within 20)	
Spring	Consolidation	Number: Addition and Subtraction (within 20)			Number: Place Value (within 50)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Consolidation	Number: Multiplication and Division			Number: Fractions		Geometry: Position and Direction	Number: Place Value (within 100)		Measurement: Money	Measurement: Time	

- We made alterations to the summer term plan and focused on revising number, place value and addition and subtraction.

Reception

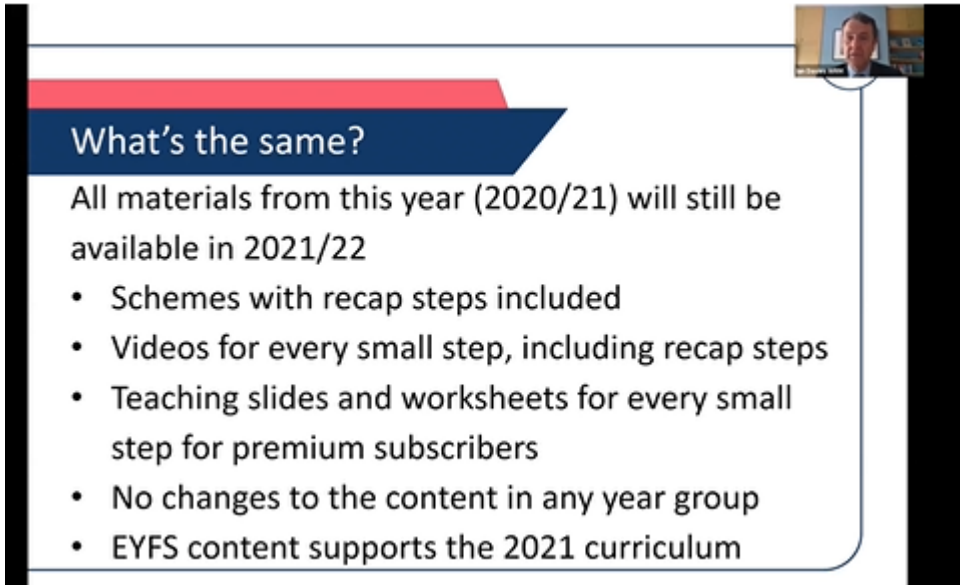
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Getting to know you (Take this time to play and get to know the children!)			Just like me!			It's me 1, 2, 3!			Light and Dark		
Spring	Alive in 5!			Growing 6, 7, 8			Building 9 and 10			Consolidation		
Summer	To 20 and Beyond			First, then, now			Find My Pattern			On the Move		

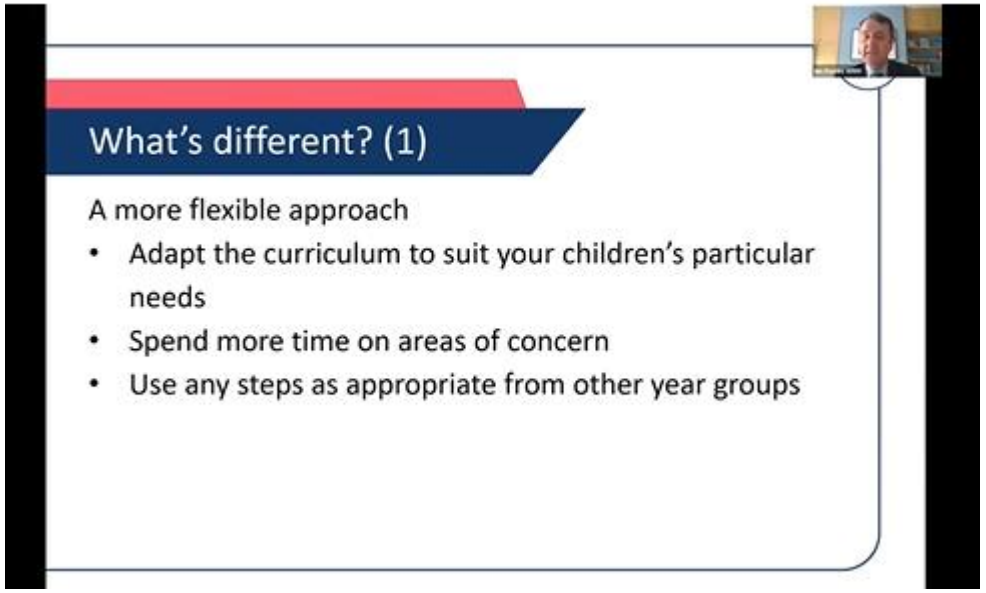
- We continued to follow the planned curriculum and plugged identified gaps.

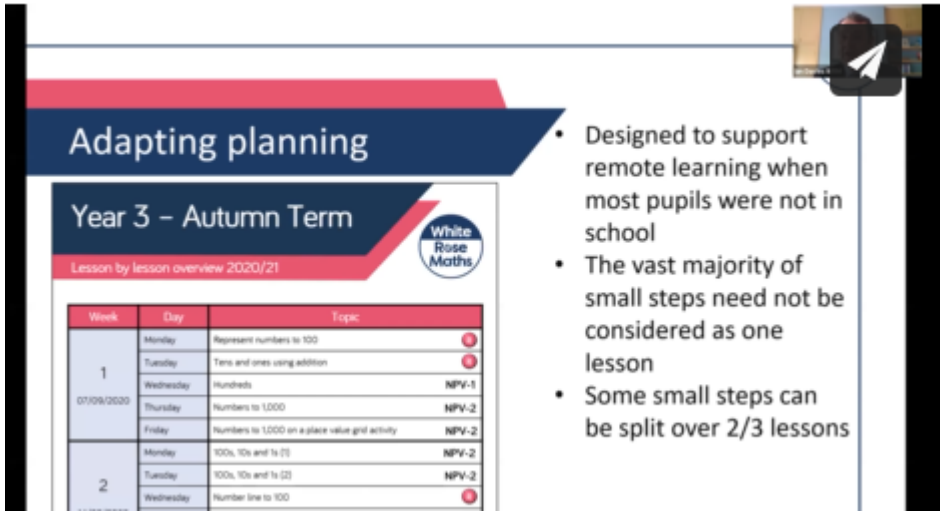
White Rose Maths

[LINK : Preparing for September Primary Webinar]

- This year we will continue to use White Rose Maths.
- It is compatible with the new EYFS curriculum.
- It can be adjusted to meet learners' needs.
- It does mean we are using the same system from Reception to Year 2.
- It is continually being reviewed and developed.







Planning considerations

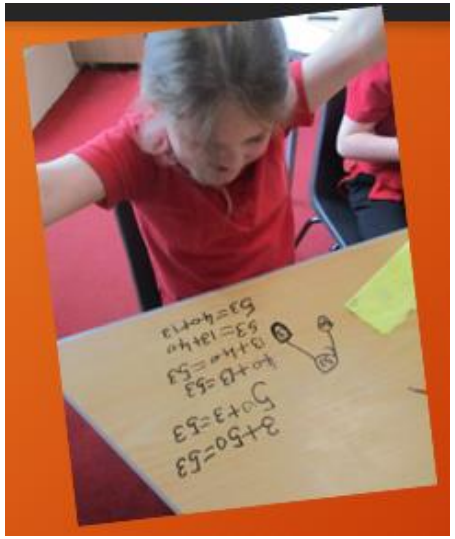
- What is the 'new' content in this block?
- What earlier learning does this build on?
  - Is this secure/potentially insecure
  - Can this be incorporated into the 'new' learning?
- Can pre-teaching/tutoring be used to support?
- Which steps will be revisited/reviewed/built on next year?

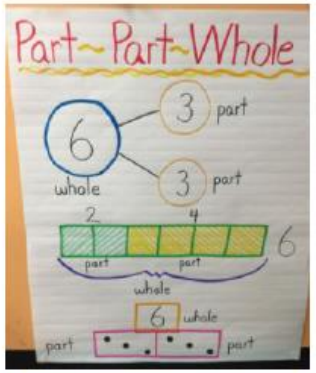
What's different? (2)

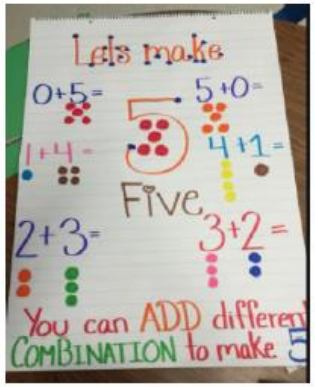
- Extra support is being developed for key learning points linked to some of the 'Ready to Progress' criteria
- Teaching notes and slides will be included
- New online tools Place Value Chart

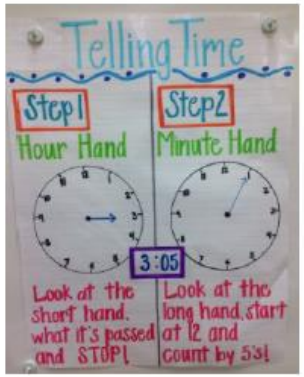
What have we trialed ?

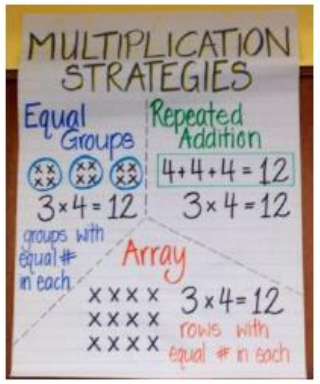
- Knowledge walls / Anchor charts
- Writing on the tables
- Floor books for practical evidence

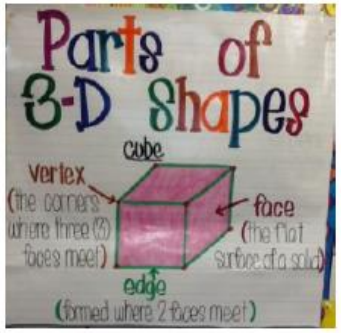


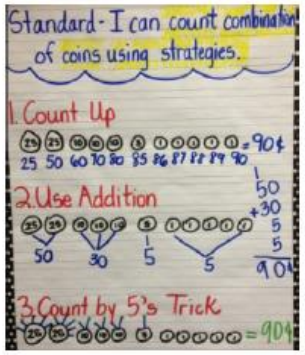




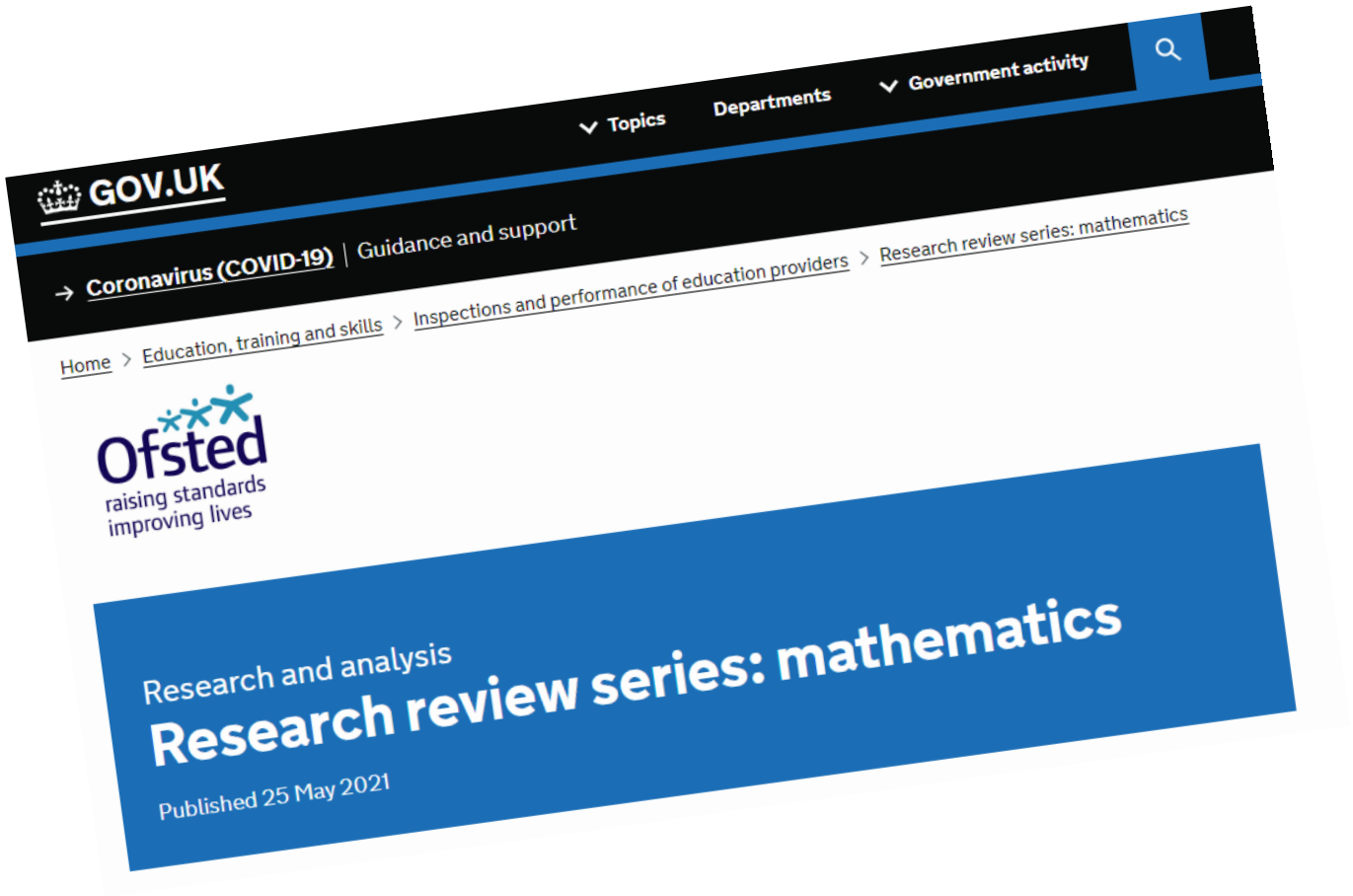








What is New ?


GOV.UK
Topics
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Coronavirus (COVID-19) | Guidance and support
Home > Education, training and skills > Inspections and performance of education providers > Research review series: mathematics
Ofsted
raising standards
improving lives
Research and analysis
Research review series: mathematics
Published 25 May 2021

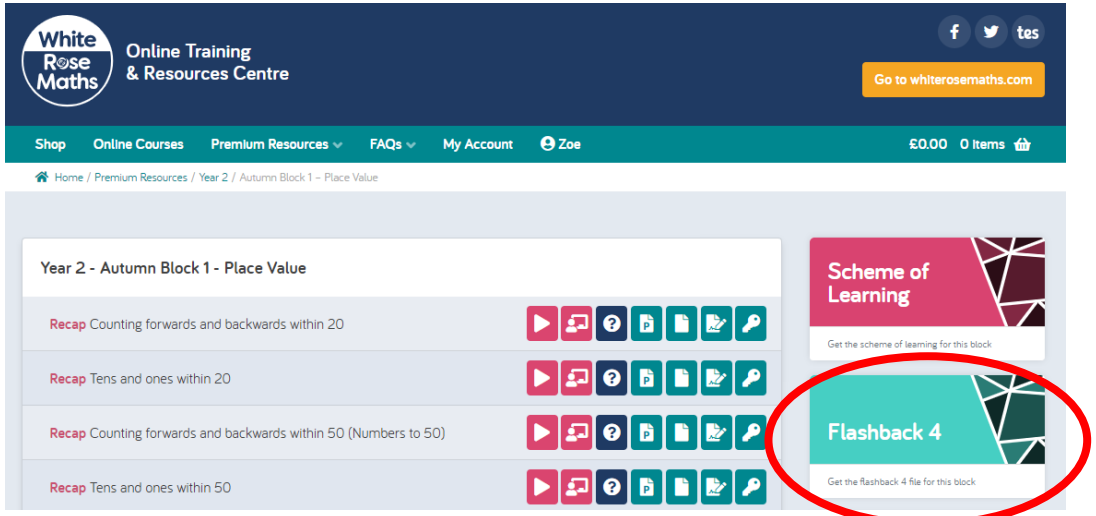

THIRD SPACE LEARNING
Ofsted Maths Research Review 2021
7 of the most important factors that we've drawn from the research findings.
1 Foundational success in maths underpins maths positivity and leads to improved results.
2 Early curriculum emphasis on core facts and concepts is key to closing the gaps in knowledge.
3 Sequence new learning so it builds on strong foundations.
4 Striving for equity in your curriculum means better outcomes for all.
5 Teach problem solving explicitly and in context.
6 Look at the quality and quantity of topic consolidation and low stakes assessments.
7 School-wide systems are best for pupil progress and teacher development.

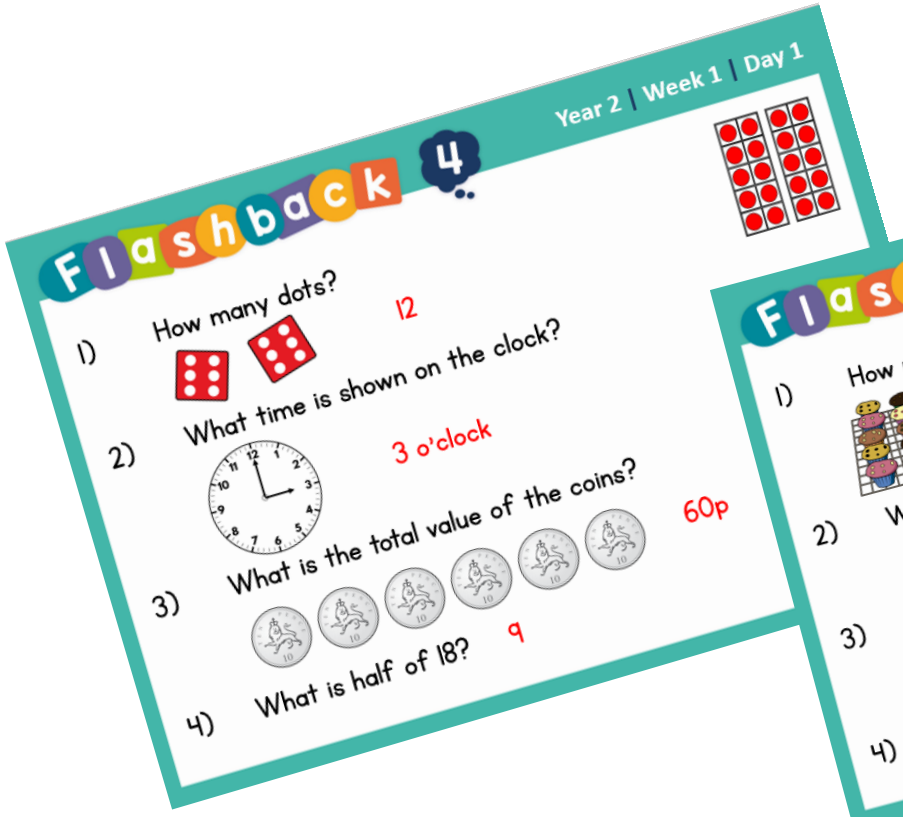
Growth mindset in maths…

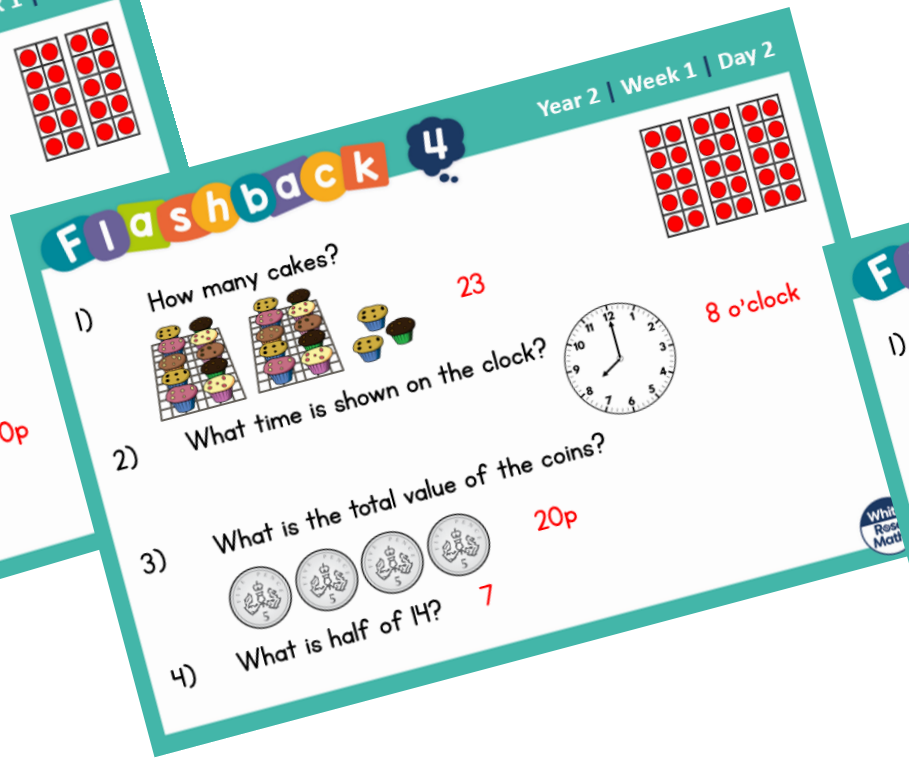
- Book Jo Bowler Mathematical Mindsets
- What was the biggest challenge you had today ?
- Not YET
- Building Learning Power
- NRich maths
- Book Growth Mindset lessons – Katherine Muncaster

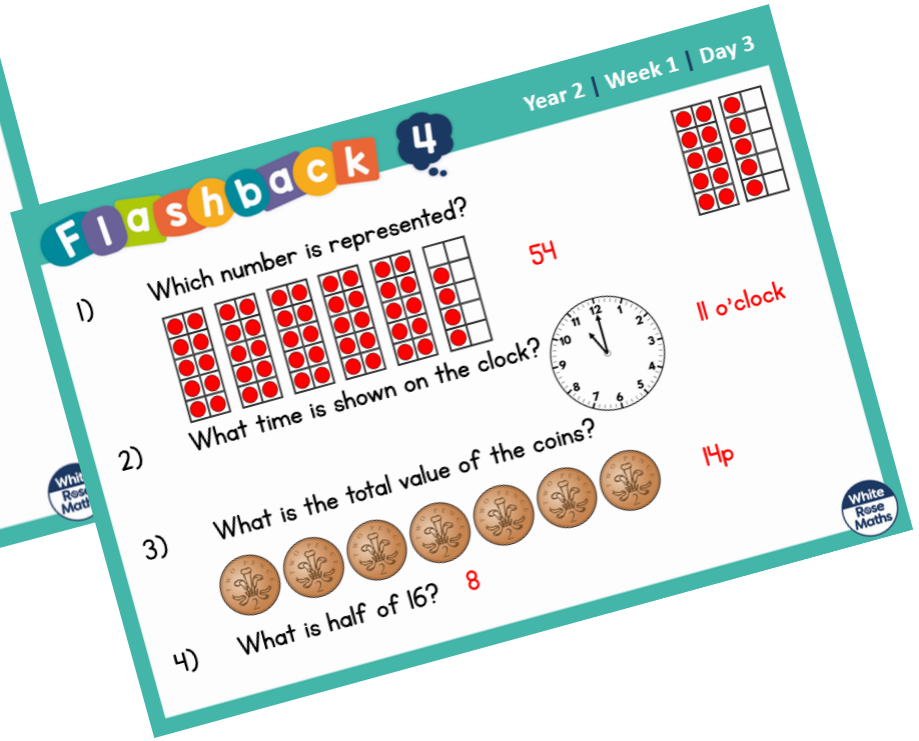
Retrieval practice / Sticky Learning

- WRM Flashback 4 at KS1









Intent, Implementation and Impact

- Mathematics statement

INTENT				
	When teaching mathematics at Inglewood Community Nursery and Infant School, we intend to provide a curriculum which caters for the needs of all individuals and sets them up with the necessary skills and knowledge for them to be successful. We aim to provide a strong foundation for our young learners to build upon in order for them to go on to gain future opportunities for a successful working life. We intend to incorporate appropriate levels of challenge through varied and high-quality activities with a focus on fluency, reasoning and problem solving. Using the mastery approach pupils are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. A wide range of mathematical resources are used and pupils are taught to show their workings in a concrete, pictorial and abstract form wherever suitable. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience, adaptability and acceptance that we can learn through trial and error. Our curriculum allows children to better make sense of the world around them relating the pattern between mathematics and everyday life.			
	VOCABULARY	KNOWLEDGE / SKILLS	PROGRESSION	OPORTUNITY
	We intend to create a vocabulary rich environment, where talk for maths is a key learning tool for all pupils. We intend to expose all pupils to year group specific mathematical language. Pupils will be encouraged to use cognitive thinking and mathematical vocabulary to explain their methods.	It is our intention to create a curriculum which blends knowledge with skills. A curriculum which provides solid foundational skills which children can build up on and which will foster confidence in maths.	Use assessment to inform next steps Inform parents – set targets We also intend to communicate effectively with parents/carers in order to support children beyond the classroom.	When beginning their primary school journey in the EYFS, many children arrive to school with different and sometimes more limited experiences than others. Therefore, our aim is to give children the knowledge and skills to prepare them for what comes next in their lives. This includes the relevant vocabulary needed throughout their education and the opportunity to link maths to real-world problem solving.

IMPLEMENTATION				
	Mastery - White Rose Maths Every class from Reception to Y2 follows the White Rose scheme of learning which is based on the National Curriculum and which is linked to the DfE Ready to progress criteria. It is also compatible with the new 2021 EYFS framework. Lessons may be personalised to address the individual needs and requirements for a class but coverage is maintained. Learning is carefully sequenced and blends elements of mastery and spiral learning. This allows for children to practise retrieval skills regularly. **Fluency – Key Instant Recall Facts** We use Big Maths CLIC and ACLIC to support the teaching of KIRFS. We also use our own additional KIRFS to support the teaching of objectives including subitising and composition of number.	**Concrete Pictorial Abstract (CPA)** We implement our approach through high quality teaching delivering appropriately challenging work for all individuals. To support us, we have a range of mathematical resources in classrooms including. When children have grasped a concept using concrete equipment, images and diagrams are used (pictorial) prior to moving to abstract questions. Abstract maths relies on the children understanding a concept thoroughly and being able to use their knowledge and understanding to answer and solve maths without equipment or images.	**Modelling** Teachers teach the skills needed to succeed in mathematics providing examples of good practice and having high expectations. Peer support is used (as appropriate) with benefit to both the coaches and those being supported.	**Pattern and Connection Identification** All children will have opportunities to identify patterns or connections in their maths; they can use this to predict and reason and to also develop their own patterns or links in maths and other subjects.

Assessment Through our teaching we continuously monitor pupils' progress against expected attainment for their age, and against individual starting pints. We make formative assessment notes and use these to inform our teaching. Summative assessments are completed at the end of each term and these are used to identify areas for development for groups and individuals. The main purpose of all assessment is to always ensure that we are providing excellent provision for every child.	**Continuing Professional Development** (CPD) We continuously strive to better ourselves and frequently share ideas and things that have been particularly effective. We are part of the North West Maths Hub Mastery Readiness programme. We keep abreast of developments, reports and new ideas in maths. We make refer to published guidance from notable sources: DfE Ready to Progress criteria. NCETM prioritisation document. Osted mathematics research document (May 2020).	**Communication** Evidence Me is used as a powerful communication tool in the EYFS. Staff are quickly and easily able to communicate with parents about children's learning. Observation sheets are completed regularly, targets added and shared with parents. E-mail is also used as a communication tool for setting homework including maths. We also use WRM video lessons for home learning which support parents/carers in understanding tasks.	**Online** In order to support pupils to develop rapid recall of key number facts we use Numbots and Times Tables Rock Stars (as appropriate). We also use Purple Mash to set maths tasks. Evidence Me can also be used to set and discuss mathematical tasks.
EYFS Number fluency is continually developed within early years: our Mathematical curriculum covers number, recognising numerical patterns and shape, space and measures. Children in Nursery and Reception participate in regular maths sessions and are given time to explore mathematical concepts, test ideas, develop their understanding and practise taught skills through play. Maths can be found in all areas of our provision and children experience it in a purposeful and meaningful context within their play and daily routines. During independent learning time children can explore number, shape, space and measures through continuous provision. Children are encouraged to use their mathematical understanding and skills to solve real-life problems and practitioners are trained to identify and extend opportunities to foster this. Maths activities in the Early Years can be directed or can follow children's interests. Throughout the EYFS Development Matters (2021) is used as a reference point for planning and creating appropriate tasks for directed teaching and independent learning opportunities.			

IMPACT	PUPIL VOICE	KNOWLEDGE	SKILLS	Cultural Capital
	Children use an increasing range of mathematical vocabulary with accuracy and can explain their thinking. Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they enjoy learning in maths. Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.	Children acquire mathematical knowledge. They develop strong foundational skills Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations. Children demonstrate quick recall of number facts and can apply this knowledge when solving related problems.	They develop independence and show resilience when tackling problems They have the flexibility and fluidity to move between different contexts and representations of maths Children develop the ability to recognise relationships and make connections in maths lessons. Children use and apply their mathematical thinking inside and outside of school. They use their mathematical skills in cross curricular areas. They develop broad and deep understanding of mathematical concepts.	Facilitate high quality interactions Provide in depth learning experiences Deepen and enrich learning Extend learning Role play small world Develop foundations for future Young pupils show emerging understanding of the need for maths beyond school. They begin to understand that maths is important for their futures.
	The expectation is that the majority of pupils will move through programmes of study at broadly the same pace. However, decisions about when to progress will always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly will be challenged to broaden and deepen their learning. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on. All children are expected to succeed and make progress from their starting points.			

Lesson drop ins – feedback

What went well …

- Consistent use of WRM from Reception to Year 2
- Maths talk – great use of maths vocabulary – exposing children to a range of mathematical language from a young age.
- Range of strategies – oral, sensory, concrete, pictorial, abstract, whiteboard, smartboard, paired work, writing on tables.
- Misconceptions widely addressed.
- Maths displays beginning to come together.
- Maths in floor books.
- Encouraging reasoning , asking for alternative methods.
- Following children's interests in EYFS and covering key areas referenced in Development Matters. (In 2021 /22 we will use Birth to 5 Matters.)
- Evidence Me in EYFS and observation sheets – also shared with parents

What next …

- Maths on display – something we could develop further – anchor charts etc.
- Take care with terminology – e.g. no such shape as a diamond, be careful using the word sum (only refers to +).
- More maths in floor books ? Evidence Me in KS1 ?

Child interviews – feedback

- Generally the children enjoyed maths and were able to talk about the different ways they learn e.g. smartboard, whole class, small groups, continuous provision, partner work, writing on tables, using apparatus, support from adults etc.

- Area for development – maths in the wider world.
- Maths in context – why do we need maths?
- The children were asked : How important is maths in your life ? Can you think of any times you use maths outside of school ?

Child interviews – next steps

It's true, maths really is everywhere, and learning about it doesn't happen just at school or nursery. Young children have lots of important mathematical experiences every day and there are lots of ways to help them begin to develop their mathematical skills. We all use maths many times a day. Numbers and shapes, measuring and solving problems are all needed for simple tasks like measuring out washing powder, making the right number of sandwiches for lunch or cutting a cake in equal portions. Young children need help to understand what maths is used for and you can do this by talking about the maths you use in your day-to-day routine. Show children how numbers, size, shape and pattern are important in your life by doing things like:

- checking with them the bus number as it arrives
- reading aloud the quantities printed on boxes and tins of food
- pointing out the numbers on the clock
- counting out the money at the check-out
- finding the TV channel on the remote control together
- talking about how things fit and tidying away toys into boxes. Use everyday maths words.

Children may not understand all the maths you use, but they can get to know maths words and numbers. If your family speaks several languages together, encourage the children to learn to count in all of those languages. This will help their understanding about number. Children who are confident with counting get off to a good start in maths.

Why do young children need to know about maths in the wider world?

- To be aspirational
- Cultural capital
- To see a purpose behind their learning
- To encourage learning

How do we do this?

- Be explicit – I am teaching you this because …
  e.g. If you want to be a _____ you will need to be able to _____.
- Cross curricular – maths in science , maths in history
  e.g. measurements, dates

Fluency – Much more than just rote learning

- National Curriculum :
- 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

Fluency – Much more than just rote learning

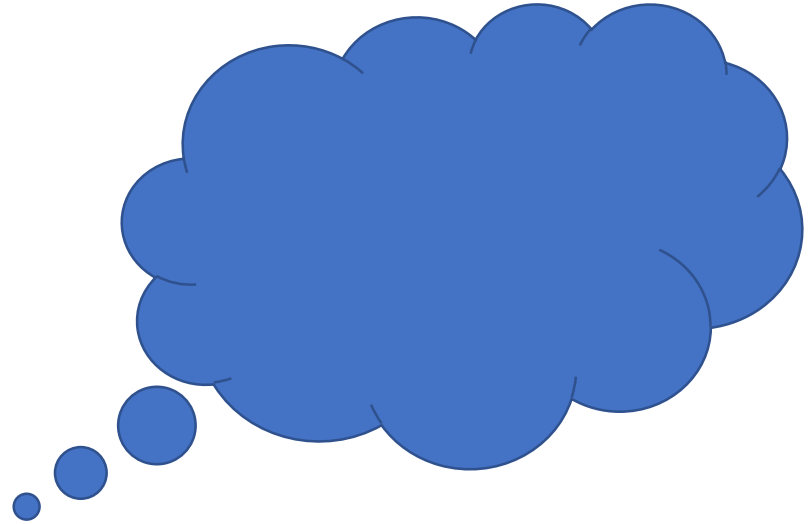
- **Number Sense**
- In a critical research project researchers studied students as they solved number problems (Gray & Tall, 1994). The students, aged 7 to 13, had been nominated by their teachers as being low, middle or high achieving. The researchers found an important difference between the low and high achieving students – the high achieving students used number sense, the low achieving students did not. The high achievers approached problems such as 19 + 7 by changing the problem into, for example, 20 + 6. No students who had been nominated as low achieving used number sense. When the low achieving students were given subtraction problems such as 21-16 they counted backwards, starting at 21 and counting down, which is extremely difficult to do. The high achieving students used strategies such as changing the numbers into 20 -15 which is much easier to do. The researchers concluded that low achievers are often low achievers not because they know less but because they don't use numbers flexibly – they have been set on the wrong path, often from an early age, of trying to memorize methods instead of interacting with numbers flexibly (Boaler, 2009). This incorrect pathway means that they are often learning a harder mathematics and sadly, they often face a lifetime of mathematics problems.

If you know a + b = c
What else do you know ?

I notice / I wonder …

- Confidence building
- Everyone can contribute
- Differentiation
- Low floor / high ceiling
- Mixed ability pairs, talk partners

- Can you think of any other ideas ?



CLICS

Inglewood Community Nursery and Infant School CLICS

Term	C- counting	L – Learn Its	I – It's Nothing New	C/S – Cardinality and Subitising
Rec T1	Saying numbers step 1 Actual counting step 1	Step 1 1+1, 2+2		Subitising 1,2,3,4, 5 The oneness of 1 The twoness of 2 The threeness of 3 The fourness of 4 The fiveness of 5
Rec T2	Reading numbers step 1 CORE numbers step 1 Actual counting steps 2,3,4,5 Counting on step 1	Step 2 3+3, 4+4, 5+5 Begin counting in 10s	Doubling and Halving step 1	Revisit : Subitising 1,2,3,4, 5 The oneness of 1 The twoness of 2 The threeness of 3 The fourness of 4 The fiveness of 5 New: Cardinality for 6, 7, 8, 9, 10 The sixness of 6 etc 5 and 1 more What goes with 4 to make 6 Partition and recombine
Rec T3	CORE numbers step 1 Saying numbers step 2 Reading numbers step 2 Actual counting step 6 Counting on steps 2,3,4,5 Counting multiples step 1	Step 3 1+1, 2+3 Begin counting in 5s and 2s	Doubling and Halving step 1 Pim the alien step 1	Revisit cardinality and subitising New: Numbers to 20 10 and 1 more 11 and 2 more etc (tens frames)

Y1 T1	CORE numbers step 1 Saying numbers steps 3, 4 Reading numbers steps 3,4 Counting multiples step 2	Step 4 2+8, 3+7, 4+6 Counting in 10s forwards and back (from any multiple of 10)	Doubling and Halving step 1 Pim the alien step 1 Jigsaw numbers Step 1	Revisit : Cardinality for 6, 7, 8, 9, 10 The sixness of 6 etc 5 and 1 more What goes with 4 to make 6 Partition and recombine
Y1 T2	Saying numbers 4 Reading numbers 5 CORE numbers step 1 Counting multiples step 2	Step 5 4+2, 5+2, 6+2, 7+2, 9+2 4+3, 5+3, 6+3 Counting in 2s forwards and back (from any multiple of 2)	Pim the alien step 1 Jigsaw numbers Step 1 Doubling and halving 2 1	Revisit : Cardinality for 6, 7, 8, 9, 10 The sixness of 6 etc 5 and 1 more What goes with 4 to make 6? Partition and recombine RtoP: 1NPV–1 Count within 100, forwards and backwards, starting with any number.
Y1 T3	Saying numbers step 5 Reading numbers step 5 Squiggleworth step 1 CORE numbers step 2 Counting multiples step 3 Count fourways 1s, 10s, 2s, 25s RtoP: Counting forwards and back through odd numbers	Step 6 6+6, 7+7, 8+8, 9+9 Counting in 5s forwards and back (from any multiple of 5)	Pim the alien step 1 Doubling and halving 2 1 1 Jigsaw numbers Step 1 Fact families 1	Revisit : Cardinality for 6, 7, 8, 9, 10 The sixness of 6 etc 5 and 1 more What goes with 4 to make 6 Partition and recombine RtoP: 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =

Y2 T1	Reading numbers step 5 Squiggleworth step 1 CORE numbers step 2 Counting multiples step 3 Count fourways 100s	Step 7 3+8, 3+9, 4+7, 4+8, 4+9 Counting in 10s forwards and **back** (from any multiple of 10) X 10 table	Pim the alien step 1 Adding with Pim step 1 Doubling and halving 3 2 1 Jigsaw numbers Step 1 Fact families step 2	Revisit : Cardinality for 6, 7, 8, 9, 10 The sixness of 6 etc 5 and 1 more What goes with 4 to make 6 Partition and recombine RtoP: 2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and nonstandard partitioning. 2NPV–2 Reason about the location of any two digit number in the linear number system, including identifying the previous and next multiple of 10.
Y2 T2	Reading numbers step 6 Squiggleworth step 1 CORE numbers step 2 Counting multiples step 3 Count fourways 50s, 500s, 5000s, 1/2s	Step 8 4+5, 5+6, 6+7, 7+8, 8+9 Counting in 5s forwards and **back** (from any multiple of 5) X 5 table	Pim the alien step 1 Adding with Pim step 2 Doubling and halving 3 2 2 Jigsaw numbers step 2 Where's Mully Step 1 Fact families step 2	RtoP: 2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and nonstandard partitioning. 2NPV–2 Reason about the location of any two digit number in the linear number system, including identifying the previous and next multiple of 10.
Y2 T3	Reading numbers step 6 Squiggleworth step 1 CORE numbers step 3 Counting multiples step 4 Count fourways 2s, 200s, 2000s, 1/4s Counting along 1	Step 9 5+9, 6+9, 7+9, 5+7, 5+8, 6+8 Counting in 2s forwards and **back** (from any multiple of 2) X 2 table	Pim the alien step 1 Adding with Pim step 3 Doubling and halving 3 3 3 Jigsaw numbers 3 X 10 & ÷ 10 1 1 Coin multiplication 1, 2 Where's Mully Step 1 Fact families step 3, 4	Consolidate , review, revise