Hampshire County Council
Improvement and Advisory Service

HIAS MOODLE+ RESOURCE

Year 1 Unit Plan 1.3
Multiplication and Division
Geometry and Fractions

Autumn term

HIAS Maths Team
September 2026
Final version

Overview

This document contains…

Year 1 Unit Plans linked to the Hampshire Medium Term Overview

Points to consider when using this resource:

These unit plans provide an example of how medium-term planning could be developed into units of work. These unit plans will need to be adapted to meet the needs of pupils. The unit plan provides an outline of a possible learning journey with suggestions of types of tasks that could be used. They also identify required prior learning, some common misconceptions and an indication of key skills pupils need to secure competency. It is assumed that teachers will make use of appropriate mathematical representations (manipulatives, visuals and symbolic) to support conceptual understanding for pupils alongside procedural fluency.

National Curriculum Links:

Multiplication and Division

Pupils should be taught to:

- Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Fractions

Pupils should be taught to:

- Recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity
- Recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity

Geometry (Properties of Shape)

Pupils should be taught to:

- Recognise and name common 2-D and 3-D shapes, including:
  - 2-D shapes [for example, rectangles (including squares), circles and triangles]
  - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]

Geometry (Position and Direction)

Pupils should be taught to:

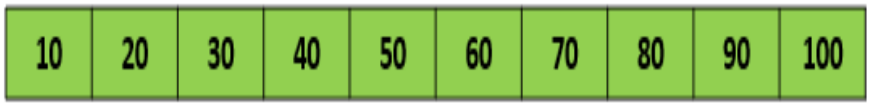
- Describe position, direction and movement, including whole, half, quarter and three-quarter turns

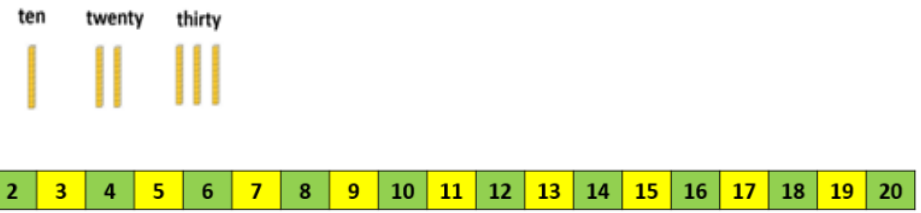
This unit develops pupil's understanding of number patterns and early multiplication by exploring counting in 2s, 5s, and 10s. Through making and adding equal groups using concrete and pictorial representations, pupils build the foundational skills needed for multiplication, division, and reasoning with numbers in real-life contexts. It also helps pupils develop an early understanding of halving by recognising what *half* means in different contexts. Pupils learn that a half is one of two equal parts, and they apply this idea to shapes, objects, and quantities. Pupils will also develop their ability to recognise, name, and describe common 2D and 3D shapes.	**Notional Time:** **15 sessions**

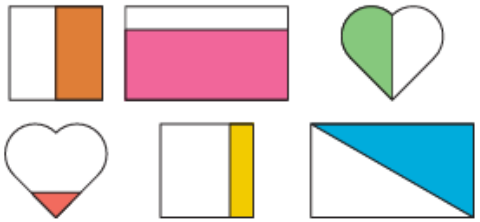
Check and Refresh - s*kills and knowledge that pupils need to know*	**Verbal coding-** *precise mathematical language to model during worked examples*	**Mastering Key Facts in Key Stage 1 –** developing fluency and automaticity
Instantly recognise small quantities (subitising) Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally See, explore and discuss models of common 2D and 3D shapes with varied dimensions and presented in different orientations.	I will count in groups of 2 / 5 / 10. I will count in groups of ___. There are ___ altogether. They can be put into equal groups of ___. There are ___ groups. One half is one part out of two equal parts.	Number bonds within 10 • *Focusing on 2, 3, 4, 5* Count in 10s to 50 (Forwards and backwards) One more one less within 20

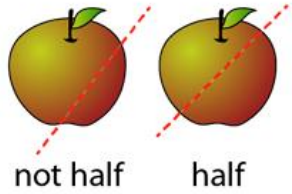
Mathematical Concepts- *important pieces of information learners should take away from the unit*	**Watch out for**	**DfE Ready -to- progress criteria**
Develop early multiplicative thinking - by counting in steps of 2s, 5s and 10s, making and representing equal groups, and beginning to add equal groups as a foundation for understanding multiplication. **Fractions (Halving)** – developing the concept of one half as one of two equal parts of shapes, objects, and quantities. **Shape and Space (Geometry)** – recognising and naming common 2D and 3D shapes, supporting spatial awareness and geometric understanding.	Pupils who cannot use counting skills to find a total. Pupils may count the number of pairs, rather than count in 2s. Pupils may count each object in a group, rather than counting in 2s / 5s / 10s. Pupils may confuse teen numbers and multiples of 10, for example 13 and 30 Pupils may confuse 15 and 50, because they sound very similar. Pupils who cannot make and represent equal groups. Pupils who do not understand the concept of equal groups and unequal groups. Pupils may think a shape or object is halved even when the two parts are different sizes.	**1 NF-2** **1 G-1** **Formative assessment questions** - *key questions to support pupil reasoning and teacher assessment* • What is the same and what is different? • What if I change…? • Can you give me an example of… and another…and another? • Which is harder and which is easier…? • If I know this, then what else do I know?

Visual coding: key representations

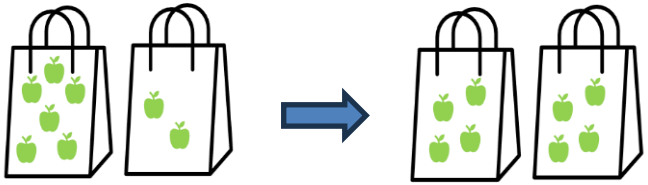


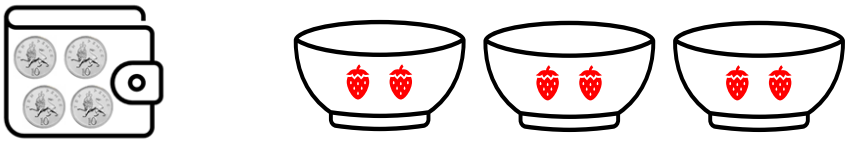






Model	Say
 one-half	*'The apple has been divided…'*
	'…into 2 equal parts…'
	'…and we have 1 of the parts.'



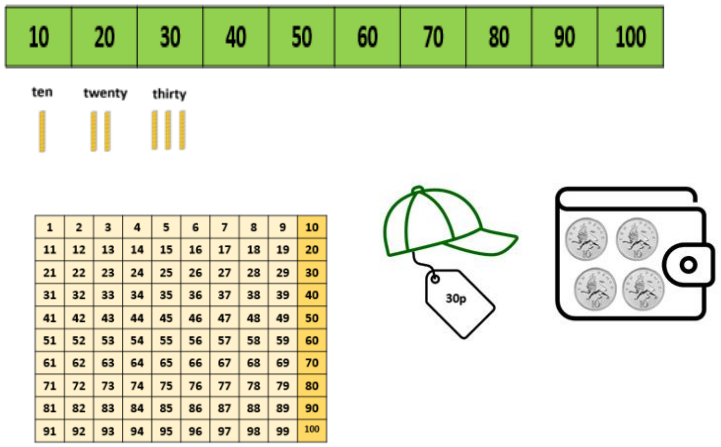


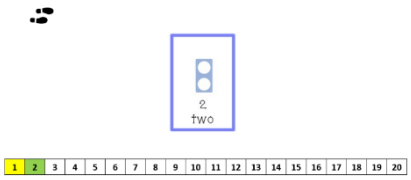
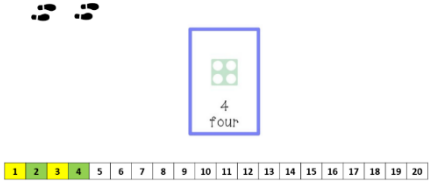
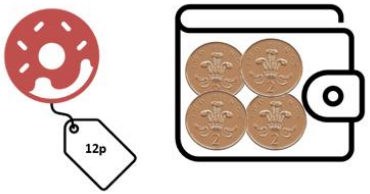
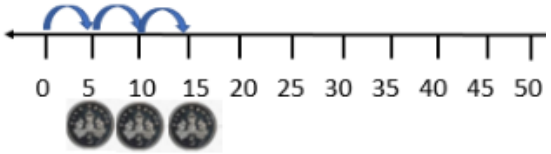
Learning Journey – Multiplication and Division		
Autumn unit 1.3 (1.5 weeks)	**Spring unit 1.6 (2 weeks)**	**Summer unit 1.10 (2 weeks)**
I can count in 10s. I can count in 2s. I can count in 5s.		
I can make equal groups using concrete objects. I can make equal groups using pictorial representations. I can add equal groups.	I can make equal groups using arrays (concrete). I can make equal groups using arrays (pictorial). I can add equal groups. I can divide by grouping. I can divide by sharing.	I can solve one-step problems by adding equal groups. I can solve one-step problems by grouping. I can solve one-step problems by sharing.

Learning Journey – Fractions		
Autumn unit 1.3 (1.5 weeks)	**Spring unit 1.6 (1 week)**	**Summer unit 1.11 (2 weeks)**
I can recognise half of a shape. I can recognise half of an object. I can recognise half of a quantity.	I can recognise, find and name a half as one of two equal parts of an object, shape or quantity. I can recognise, find and name a quarter of a shape.	I can recognise, find and name a half as one of two equal parts of an object, shape or quantity. I can recognise, find and name a quarter of a shape. I can recognise, find and name a quarter of an object. I can recognise, find and name a quarter of a quantity.

Learning Journey – Geometry (properties of shape and position and direction)		
Autumn unit 1.3 (1.5 weeks)	**Spring unit 1.6 (2 weeks)**	**Summer unit 1.11 (2 weeks)**
I can recognise and name common 2D shapes. I can recognise and name common 3D shapes.	I can recognise and name common 3D shapes. I can sort 3D shapes. I can recognise and name common 2D shapes. I can sort 2D shapes.	I can recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. I can recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]
	I can describe position, direction and movement, including whole turns. I can describe position, direction and movement, including half turns.	I can describe position, direction and movement, including quarter turns. I can describe position, direction and movement, including three- quarter turns.

Proposed lesson sequence to support development of mathematical concepts	
Developing fluency and automaticity – ongoing daily practice	
Mastering Key Facts in Key Stage 1	**Autumn Ongoing Mental Fluency Practice** • Number bonds within 10 *Focusing on 2, 3, 4, 5* • Count in 10s to 50 (Forwards and backwards) • One more one less within 20
I can…	**Mathematical Concepts, Key Skills and Suggested Tasks**
8 sessions – Multiplication and Division	

I can count in 10s.	This step helps pupils begin to understand our base-10 number system. It introduces the idea that numbers are grouped in tens, which is essential for grasping place value throughout the Primary Curriculum (e.g. understanding that 43 is 4 tens and 3 ones). Counting in tens is an early form of skip counting, which is a precursor to multiplication. It helps pupils see patterns and understand that multiplication is repeated addition.
	Suggested tasks:
	• Use a number track and Diennes to support counting in 10s
	• Move to a counting stick to practise counting in steps of 10 reliably from zero, forward or backward.
	  ○ What patterns do you notice? Which digit changes?
	  ○ Which digit stays the same?
	• Use a hundred square to support counting in 10s
	  ○ Can you describe what the pattern looks like?
	• Use 10p coins to count in 10s alongside a number line
	 

I can count in 2s.	Counting in 2s is useful in everyday situations—like counting pairs of socks, shoes, eyes, or ears. It helps pupils connect maths to the world around them. This small step also lays the groundwork for understanding even and odd numbers. Pupils begin to see that numbers in the 2s sequence are all even, which supports later reasoning and classification. **Suggested tasks:**  • Use a number track to support counting in 2s • Use concrete resources such as Numicon or pictorial images alongside a number track to represent the multiples of 2    • Use 2p coins to count in 2s alongside a number line
I can count in 5s.	The 5s sequence (5, 10, 15, 20…) follows a clear and predictable pattern, which helps pupils develop number sense and spot relationships between numbers. Counting in 5s is practical and relevant - used in telling time (e.g., minutes on a clock), handling money (e.g., 5p coins), and grouping objects. **Suggested tasks:** • Use a hundred square, number line and dice image to support counting in 5s • Use 5p coins linked to the number line, to count in 5s • Move to a counting stick to model counting in steps of 5 reliably from zero, forwards and backwards  

I can make equal groups using concrete objects.	Making equal groups is the first hands-on experience pupils have with the concepts of multiplication (repeated equal groups) and division (sharing into equal groups). As pupils group objects, they begin to use and understand key vocabulary like “groups of,” “equal,” “share,” and “each.” This language is essential for reasoning and explaining their thinking. **Suggested tasks:** • **Start with unequal groups:** Present unequal groups and ask pupils to make them equal by moving objects from the larger groups to the smaller ones until they all have the same amount. For example, "There are 6 apples in one bag and 2 in another bag; can we make the bags equal for the two hungry horses?".  • **Use concrete objects:** Use a variety of objects like counters, crayons, or sweets to represent the items being grouped. Activities can also involve drawing around objects to make groups. • **Focus on one-to-one correspondence:** To check if groups are equal, pupils can match objects on a one-to-one basis to confirm they have the same number.
I can make equal groups using pictorial representations.	Drawing or interpreting equal groups visually reinforces the idea of multiplication as repeated addition and division as sharing or grouping. It helps pupils *see* the structure of multiplication and division. Using pictures encourages pupils to reason visually - spotting patterns, estimating, and explaining their thinking. This strengthens their ability to solve problems and communicate mathematically. • **Move from concrete to pictorial:** Once pupils are comfortable with manipulating concrete objects to make equal groups, ask them to draw the groups to represent the concept visually.

I can add equal groups.	This small step is the foundation of multiplication. Before pupils learn multiplication facts or symbols, they need to understand that multiplication is repeated addition—e.g., 3 groups of 4 is the same as 4 + 4 + 4.
	
	• **Introduce the Concept:**
	  ○ Show 3 bowls, each with 2 strawberries
	  ○ Ask ‘How many strawberries are in one bowl?’ (pupils answer: 2)
	  ○ Ask ‘How many strawberries are in three bowls?’
	  ○ Guide them to see: **2 + 2 + 2 = 6**
	 
	• **Model repeated addition**: 3 groups of 2 strawberries = 2 + 2 + 2 = 6 strawberries
	• Repeat with other ‘what if?’ questions: What if there were 4 bowls, each with 2 strawberries? What if there were 5 bowls, each with 2 strawberries? What if there were 2 bowls, each with 3 strawberries?

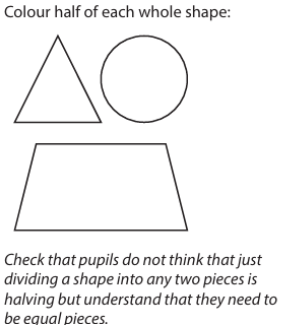
<table>
<tr><th colspan="2">7 sessions – Fractions and Geometry</th></tr>
<tr><td>I can recognise half of a shape.</td><td>
At the start of Year 1, this step means that pupils can identify when a shape has been divided into two equal parts and can recognise one of those parts as “a half.” This is a visual and conceptual skill, not a formal fraction one. Pupils are not expected to:

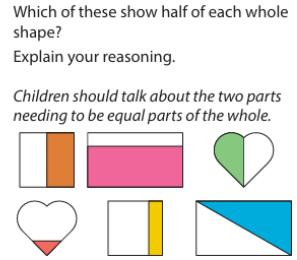
Write ½
Measure lengths or areas
Draw accurate halves independently

They are expected to look, compare, and notice equality.

Checking for understanding questions:

Which of show half of each whole shape?
Explain your reasoning.
Pupils should talk about the two parts needing to be equal parts of the whole.





Taken from NCETM ‘Teaching for Mastery – Y1’

As well as providing pupils with examples of halves of shapes to recognise, it is also important to provide them with non-examples of halves e.g. shapes that are divided into two parts, but the parts are not equal, so that pupils can reason and explain their thinking.
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<tr><td>I can recognise half of an object.</td><td>
This step means that pupils can identify one half of a real, everyday object when it has been split into two equal parts. The key difference from half of a shape is that an object is a real thing (not a flat 2D shape), such as:

An apple
A sandwich
A toy
A piece of fruit
A stick of playdough

<table>
<tr><th>Model</th><th>Say</th></tr>
<tr><td rowspan="3"> 
one-half</td><td>‘The apple has been divided…’</td></tr>
<tr><td>‘…into 2 equal parts…’</td></tr>
<tr><td>‘…and we have 1 of the parts.’</td></tr>
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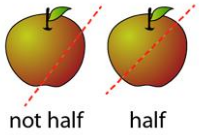
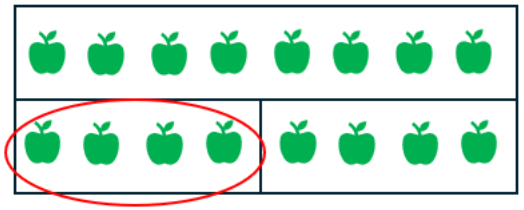


Pupils are recognising half in practical, real-life contexts.

Use a range of practical objects and pictures to teach pupils to identify whether or not the object has been split in half, or not. ‘It is split in half because it has been split into two equal part.’ Or not, ‘it is not split into halves because it has not been split into two equal parts.

</td></tr>
</table>

I can recognise half of a quantity.	This step means that pupils can identify half of a set or group by recognising that it has been split into two equal groups. A *quantity* refers to a number of objects, not a shape or a physical object. For example: • 6 counters • 10 cubes • 8 apples • A group of children Pupils are learning to *see* half as equal sharing, not as a written fraction. **Key concept:** • Make the link to recognising a half of a quantity by splitting a group of physical concrete objects into two equal groups • Encourage pupils to use concrete resources on a bar model and to draw pictorially. • For example: 'The 8 apples have been divided into 2 equal groups. I have 1 of the parts. There are 4 apples in one part. Half of the 8 apples is 4 apples.' 
I can recognise and name common 2D shapes.	This step means that pupils can visually identify familiar 2D (flat) shapes and correctly say their names. The emphasis is on recognition and naming, not on properties, drawing, or formal geometry. "2D shapes" are flat shapes with length and width, not height. In early Year 1, this usually includes: • Circle • Square • Rectangle • Triangle
I can recognise and name common 3D shapes.	This step means that pupils can identify familiar 3D shapes (solid shapes) and correctly say their names when they see or handle them. A 3D shape is a shape that is solid and has length, width, and height. Pupils experience these shapes mainly through real objects, not drawings. The focus is on recognising and naming, not on properties or technical vocabulary at this stage. In early Year 1, this usually includes: • Cube • Cuboid (often called a rectangular prism) • Sphere • Cylinder Some pupils may also recognise: • Cone • Pyramid Secure knowledge of the **first four** is the main expectation.

HIAS Resources to support:

- Reasoning and Intelligent Practice Tasks: Reasoning and Intelligent Practice Tasks
- Faded Scaffolds and Intelligent Practice: Faded Scaffolds and Intelligent Practice
- Paired Examples: Paired Examples
- Entry and Exit tickets: Entry and Exit Tickets
- Interleaving, Recall and Retrieval: Interleaving, Recall and Retrieval (hants.gov.uk)
- Connect4Maths: Connect4Maths - Primary
- Moderation Documents: Moderation Documents
- KS1 Key Facts: Key Stage 1 Key Facts Document
- Mastering Times Tables: Mastering Times Tables

NCETM Resources to support:

- Exemplification of ready -to -progress criteria (RTPS): Exemplification of ready-to-progress criteria | NCETM
- NCETM Professional Development materials spine 1: Number, Addition and Subtraction | NCETM ;
- The NCETM Mastery Task booklets can be used as a source of tasks to support end of year teacher assessment for both EXS and GDS Teaching for Mastery Booklets Yr1-6

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