Mathematics Moderation Guidance

Year 5

Hampshire Maths Team
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Final version

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Overview

This document contains guidance and resources to support the moderation process of pupils' work in mathematics. It offers a consistent framework and clear criteria for evaluating pupils' work and will support teachers in making accurate and confident teacher judgements. Teachers should use the document to facilitate professional dialogue and shared understanding, allowing educators to make informed and accurate decisions about pupil strengths and next steps.

Points to consider when using this resource
- The milestones align with the Hampshire Assessment Model (HAM).
- This is not to be used as an assessment document but to support the professional conversation during moderation.
- Only a few National Curriculum objectives have been selected for each milestone, but all National Curriculum objectives should be considered when planning and assessing.
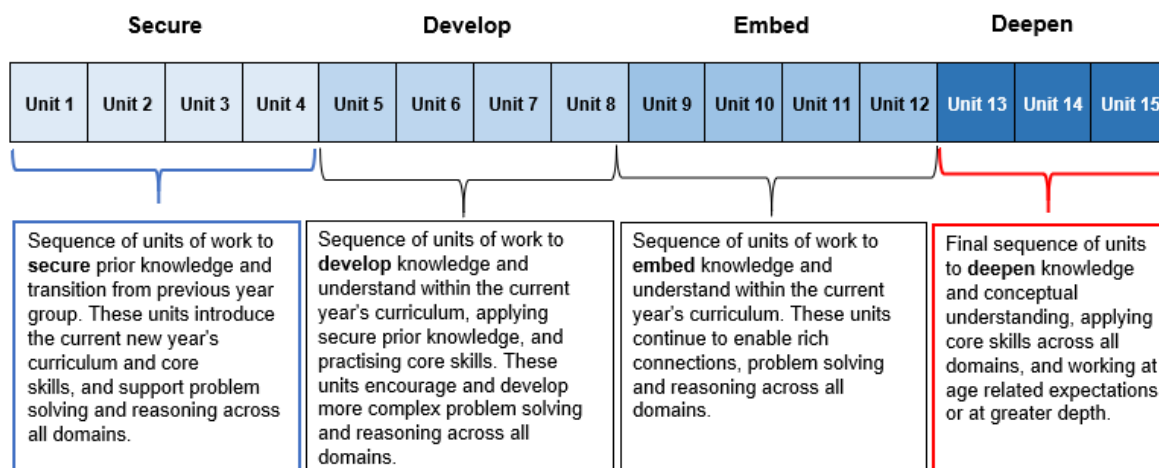
Long term curriculum map for Year 5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Autumn	4.1 Number and Place Value Addition and Subtraction			4.2 Measurement with Addition and Subtraction		4.3 Multiplication and Division		4.4 Fractions			4.4 Geometry	4.5 Measurement		4.5 Time
	Measurement: Time : Utilise everyday opportunities to tell the time from an analogue clock and a 24-hour clock. Estimate and read time with increasing accuracy to the nearest minute. Convert from hours to minutes, minutes to seconds, years to months, weeks to days.													
Spring	4.6 Factions		4.6 Geometry	4.7 Number and Place Value Addition and Subtraction			4.8 Measurement: Time	4.9 Multiplication and Division		4.9 Fractions	4.10 Place Value Addition and Subtraction with Statistics			
	Measurement: Time: Utilise everyday opportunities to tell the time, including on a clock face with Roman numerals. Convert to 12-hour and 24-hour time. Read Roman numerals to 100 (C). Practise counting in multiples of 25 and 1000 from zero													
Summer	4.11 Multiplication and Division			4.12 Geometry		4.13 Addition and Subtraction and Statistics		4.14 Multiplication and Division		4.14 Fractions	4.15 Measurement: Money and Time		4.16 Measurement: length	

Please find more information about the [long-term curriculum maps on Moodle+](#)

Overview of curriculum intent

Secure				Develop				Embed				Deepen		
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15

Sequence of units of work to **secure** prior knowledge and transition from previous year group. These units introduce the current new year's curriculum and core skills, and support problem solving and reasoning across all domains.

Sequence of units of work to **develop** knowledge and understand within the current year's curriculum, applying secure prior knowledge, and practising core skills. These units encourage and develop more complex problem solving and reasoning across all domains.

Sequence of units of work to **embed** knowledge and understand within the current year's curriculum. These units continue to enable rich connections, problem solving and reasoning across all domains.

Final sequence of units to **deepen** knowledge and conceptual understanding, applying core skills across all domains, and working at age related expectations or at greater depth.

Key Assessment Bands

AM1	AM2	AM3	ARE
Assessment Milestone 1	Assessment Milestone 2	Assessment Milestone 3	Assessment ARE

What makes a successful moderation?

Completing a whole school moderation allows for a professional conversation to take place and provides you the opportunity to talk about their pupils. To be forensic regarding the pupil work and ask questions, it is important to select a few objectives to focus upon. It is not possible to look at all objectives across the National Curriculum and show evidence as this would mean looking at a lot of pieces of work and would dilute the professional conversations. We have selected a small number of objectives from across the curriculum to allow for different domains to be discussed which will help to inform areas which further interventions may be required as well as particular strengths to celebrate.

What does 'on track' look like?

As part of the moderation session, you should consider what evidence would look like to show a pupil was on track to meet age related expectations by the end of the year. Agree this from the start of the conversation so that teachers know what they are looking for.

Look at the tasks as well as the pupil responses.

When moderating pupil work look carefully at the tasks. Think about whether the task has enabled the pupil to demonstrate a good understanding of the standard. Sometimes it is not the pupils' response but instead the task that has not allowed the children to show a good enough understanding of the given objective. This will help to inform future planning and support teachers to select tasks carefully when planning a learning journey.

Look for all 3 aims.

Fluency, Reasoning and Problems Solving. The 3 aims from the National Curriculum that all pupils should experience and be taught objectives through. When moderating, ensure that you look for each of the aims. Evidence of fluency, reasoning and problem solving do not need to be shared for each individual objective but across the body of work shared, there should be evidence of all 3. Use moderation as an opportunity to look out for this and then inform planning for the next half term.

Moderation is an opportunity to be diagnostic

Being provided with the opportunity to share pupil work and discuss individual pupils also provides us the opportunity to be diagnostic and identify individual and cohort next steps. Take time after a moderation session to make some notes. Knowing exactly what to do next, can make the whole experience worthwhile and informative.

- What do you need to do next to secure age related expectations / the greater depth standard?
- What domains need more time?
- What adaptations need to be made to long-term planning?
- What interventions would benefit individual / groups of pupils.

Holding a professional conversation

When moderating with our colleagues, it is sometimes difficult to know the types of questions to ask. Below I have included a possible list of questions to provide a starting point:

- *Can you provide me with a further context to this lesson?*
- *What was the child saying/doing that makes you think they are secure with this objective?*
- *How can you be sure the objective is mastered?*
- *Is the child able to apply the knowledge to reasoning and problem-solving questions?*
- *How much support was provided to complete the task?*
- *At what point was the support/scaffold removed?*
- *Where are the opportunities for independent practice?*
- *Are you able to evidence that the child is still secure with the objective?*

Moderation Year 5 – Milestone 1

Number Place Value: Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.

Strengths:	*Next steps:*

Addition and Subtraction: Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

Strengths:	*Next steps:*

Multiplication and Division: Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
Multiply and divide numbers mentally drawing upon known facts.
Multiply and divide whole numbers and those involving decimals by 10, 100.

Strengths:	*Next steps:*

Fractions: Compare and order fractions whose denominators are all multiples of the same number.

Strengths:	*Next steps:*

Measurement: Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. Calculate and compare the area of rectangle (including squares) and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes

Strengths:	*Next steps:*

Geometry: Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.

Strengths:	*Next steps:*

Statistics: Complete, read and interpret information in tables, including timetables.

Strengths:	*Next steps:*

Moderation Year 5 – Milestone 2

Number Place Value: Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero.	
Strengths:	*Next steps:*

Addition and Subtraction: Add and subtract numbers mentally with increasingly large numbers. Add and subtract whole numbers with more than 4 digits, including using formal written methods.	
Strengths:	*Next steps:*

Multiplication and Division: Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	
Strengths:	*Next steps:*

Fractions: Add and subtract fractions with the same denominator and multiples of the same number. Round decimals with two decimal places to the nearest whole number and to one decimal place. Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator hundred, and as a decimal fraction.	
Strengths:	*Next steps:*

Measurement: Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.	
Strengths:	*Next steps:*

Geometry: Draw given angles, and measure them in degrees ($^\circ$)	
Strengths:	*Next steps:*

Statistics: Complete, read and interpret information in tables, including timetables.	
Strengths:	*Next steps:*

Moderation Year 5 – Milestone 3

Number Place Value: Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	
Strengths:	*Next steps:*

Addition and Subtraction: Solve addition and subtraction multi- step problems in contexts, deciding which operations and methods to use and why.	
Strengths:	*Next steps:*

Multiplication and Division: Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.	
Strengths:	*Next steps:*

Fractions: Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25.	
Strengths:	*Next steps:*

Measurement: Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints. Estimate volume (eg using 1 cm3 blocks to build cubes and cuboids) and capacity (eg using water)	
Strengths:	*Next steps:*

Geometry: Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.	
Strengths:	*Next steps:*

Statistics: Solve comparison, sum and difference problems using information presented in a line graph.	
Strengths:	*Next steps:*

Moderation Year 5 – Milestone 4

Number Place Value: Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.

Strengths:	Next steps:

Addition and Subtraction: Solve addition and subtraction multi- step problems in contexts, deciding which operations and methods to use and why.

Strengths:	Next steps:

Multiplication and Division: Solve problems involving addition, subtraction, multiplication and division and a combination of these.

Strengths:	Next steps:

Fractions: Solve problems involving number up to three decimal places.
Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25.

Strengths:	Next steps:

Measurement: Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling.

Strengths:	Next steps:

Geometry: Use the properties of rectangles to deduce related facts and find missing lengths and angles. Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

Strengths:	Next steps:

Statistics: Solve comparison, sum and difference problems using information presented in a line graph.

Strengths:	Next steps:

Moderation Year 5 – Milestone 4

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