

Mathematics Curriculum Map: Year 4 (Amended for spring and summer)

Mastery

Number of unplanned weeks in spring: 1

Number of unplanned weeks in summer: 2

Spring	Unit	Key Points	Considerations
	Unit 5: Securing Multiplication facts (1 week)	Identify and explore patterns in multiplication tables including 7 and 9	 This unit can easily be fed into Maths Meetings or shorter arithmetic sessions. The principal aim is to build fluency in the use of arrays and representations. There are great opportunities to give pupils independent projects investigating patterns using a variety of grids. This could be given before a lesson, then have a follow up debrief to share findings. If you are teaching live sessions, consider a live 'counting stick' session that pupils can be involved with. This could be done via a video call.
	Unit 6: Fractions (4 weeks)	 Explore different interpretations and representations of fractions Equivalent fractions Represent fractions greater than one as mixed number and improper fractions Add and subtract fractions with the same denominator including fractions greater than one 	 This unit explores lots of pictorial and abstract representations of fractions. Where manipulatives need to be used, pupils could create their own fractions walls or use interactive versions of them and Cuisenaire rods. Ensure that any presentation includes a number of representations. You may adapt the PPT or Smart/Active slides to ensure the fractions being shown are as clear as possible, during modelling. This may include amending colours, size, font etc. If teaching remotely, consider opportunities for pupils to create bar models to gain a greater understanding of representing fraction problems.
	Unit 7: Time (1 week)	 Analogue to digital, 12-hour and 24-hour Convert between units of time 	 This could be re-purposed and fitted into Maths Meetings. Number lines are an essential resource. Pupils can create and draw their own to use at home if needed (and if there isn't access to a printer). There are interactive clocks that could be used so pupils can have a clock to set (e.g. https://www.topmarks.co.uk/time/teaching-clock).
	Unit 8: Decimals (3 weeks)	 Decimal equivalents to tenths, quarters and halves Compare and order numbers with same number of decimal places Multiply and divide by 10 and 100 including decimals 	 This unit uses decimal notation for the first time for tenths & hundredths. Pupils must be confident in their understanding of these fractions before moving to it. Consider how representations can be used to support this unit: use of money is a good way to build a context of hundredths. As a unit with a lot of new concepts, you may decide to move this so it can be introduced in person. If not possible, allow lots of time to explore and use Maths Meetings to reinforce counting on/back in decimals.
	Unit 9: Area and Perimeter (2 weeks)	 Perimeter of rectangles and rectilinear shapes Area of rectangles and rectilinear shapes Investigate area and perimeter 	 Given that most of the unit relies on pictorial representations, this unit should transfer well to remote teaching. When teaching strategies to calculate perimeter and area, it is important that pupils don't learn rote 'tricks'. Avoid this by ensuring that explanations and modelling (live or video) include thinking aloud and more than one approach is looked at.



The Dimensions of Depth - Conceptual Understanding, Language and Communication and Mathematical Thinking - underpin all aspects of the curriculum; problem solving is at the heart and is embedded in all units.



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	Unit	Key Points	Considerations
Summer	Unit 10: Solving measures and money problems (3 weeks)	 Convert units of measure Select appropriate units to measure Use strategies to investigate problems: trial and improvement, organising using lists and tables, working systematically 	 This unit allows pupils to become more confident converting within contexts. Do consider pupils understanding of decimals if you chose to move Unit 8. The final two weeks allow pupils to practically apply their knowledge. Whilst this is great for remote learning as it provides structure and independent learning scenarios, carefully consider how you will be able to support and guide pupils' learnings. Short recorded video instructions over a PPT might be a useful support that pupils can repeat as they work at their own pace.
	Unit 11: Shape and symmetry (3 weeks)	 Classify, compare and order angles Compare and classify 2-D shapes Identify lines of symmetry 	 There are 4 consolidation lessons so do think about whether pupils need a review of prerequisite knowledge having not covered these concepts recently. This unit can be made interactive by encouraging pupils to use things they have around them to explore angles and symmetry. Consider how understanding of shape and symmetry can be assessed. Short review tasks (in consolidation lessons) such as 'odd one out', 'sort and classify' or 'what's wrong with this' can be useful for remote assessment.
	Unit 12: Position and Direction (1 week)	 Describe and plot using coordinates Describe translations 	 Where pupils may not have access to squared paper or coordinate grids, there are online platforms that allow them to complete tasks on a grid (e.g. geogebra.org/m/JMMKv7cx). Pupils can also enhance their knowledge of coordinates and grids through a range of games – battleships, maps etc. Pupils could be encouraged to record their own video to demonstrate their knowledge of translation.
	Unit 13: Reasoning with patterns and sequences (2 weeks)	 Roman numerals up to 100 Place value of other number systems Number sequences and patterns 	 This unit can be converted into a range of tasks for online learning with limited input if needed. When a secure understanding of increasing/decreasing patterns have been established, a number of lessons then work on exploring this theme. One consideration should be to think about how you want pupils to record and structure conjectures and pattern seeking. Modelling problem solving with thinking aloud can support this.
	Unit 14: 3-D shape (1 week)	 Use understanding of 3-D shapes Identify 3-D shapes from 2-D representations 	 There is no specific 3-D shape objective in the NC. Exploring geometry and visualising shapes is an important skill but recording without isometric paper can be problematic. There are online isometric drawing tools also available: nctm.org/Classroom-Resources/Illuminations/Interactives/Isometric-Drawing-Tool/ Some tasks can be exploratory with the objectives also fed into later Maths Meetings.



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