

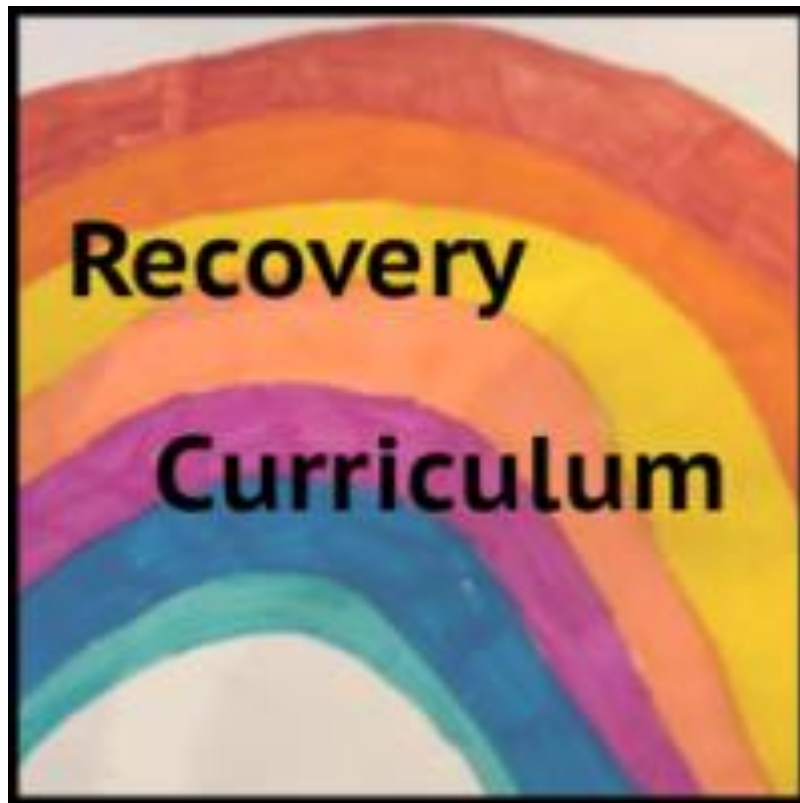
# RECOVERY CURRICULUM

Subject: Mathematics

Author: Coral Atkins

Created: July 2020

Updated:



Subject:	Mathematics	Teacher:	CLA
Year:	10	Class:	10B1 and 10B2
Unit title:	Number Properties		
Duration:	2 weeks (9 lessons)		
Intent			
Intent Statement - at Landau Forte Amington, we believe learning powerful knowledge helps students achieve and creates a fairer society. How are you trying to accomplish this, with this unit/topic?			
This topic will focus on student recovery following the pandemic, which has resulted in students experiencing the following possible losses: routine, structure, friendship, opportunity and freedom. It will support students academically, socially and emotionally, in order to transition students back to Academy life and support with the issues resulting from loss.			
Aims - what do you want pupils to be able to know and do by the time they finish this unit/topic?			
Understand and use a range of facts about number properties to solve problems Find factors, multiples, HCF and LCM of numbers Round numbers accurately Order lists of numbers (integers, decimals, negatives)			
Academy values – at Landau Forte Amington, we want students to be ambitious, brave and kind. How are these values promoted in this PoS?			
<ul style="list-style-type: none"><li>• Ambitious – aims to quickly and effectively fill gaps then progress to existing SOL</li><li>• Brave – encourage students to persevere and show resilience through problem solving task</li><li>• Kind – Culture of error fostered, classroom rules clearly established to support learning without ridicule</li></ul>			
Content – what is being covered, ensuring breadth & depth?		National Curriculum/Exam Specification - how does the content link to the NC or Exam Spec?	
A range of number skills, cumulative from previous 5 years of learning, high frequency topics in exams Covers a range of skills and content to “recover” lost learning and further develop student learning			
Powerful Knowledge - what powerful knowledge is included in this SoW? Consider what knowledge is it important for our students to know, so that when they leave school they can engage in and lead discussions, with people from the most advantaged backgrounds?			
Place value (appreciation for size of numbers) Appreciation for negative numbers in context Ordering / sorting skills			

Implementation	
GAPS	
<b>Identification</b> – how are you going to identify the gaps in knowledge/skills?	<b>Triage</b> – how are you going to rank order these gaps in knowledge/skills and 'fill' them, in order of importance?
MWB activities to assess existing knowledge Use of DNA to probe existing understanding Cold call questioning in lessons to gain insight into knowledge	Rank in order of severity (numbers affected) in order of progression (indicated by the order of aims listed above)
KEY CONCEPTS	
<b>Key Concepts</b> – what are the key concepts being taught?	<b>Progression</b> – how will studying these key concepts support progression to the traditional curriculum that has been planned?
Place value, factors, multiples, primes, squares, cubes, roots, rounding	Bridges gaps from previous years, recap of high frequency topics to be assessed in exams, underpinning skills for many later units of work
WELLBEING	
<b>Lockdown</b> – how will students share their experiences of lockdown?	<b>Social and Emotional</b> – how will student social and emotional health be supported?
Encourage to look at how this might link to experiences in lockdown	Positive classroom atmosphere, opportunities to work as a team / group, whole class discussions
RE-ESTABLISH	
<b>Learning Skills</b> – how are you going to re-establish the skills for learning?	<b>Relationships</b> – how are you going to re-establish classroom relationships?
Model how to solve problems, explicit direction on strategies and skills, "thinking out loud"	Standards lesson first lesson back, learn names of students quickly (seating plans)
OPPORTUNITIES	
<b>Discussion</b> – what are the discussion based opportunities?	<b>Group</b> – what are the group work based opportunities (while still ensuring social distancing)?
Maths team games or more complex problem/reasoning resources provided for each lesson to be discussed whole class in plenary / in groups during deliberate practice	Maths team games or more complex problem/reasoning resources provided for each lesson to be discussed in groups/pairs during deliberate practice

Delivery								
1	1	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)		3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	Recall questions based on number (MathsBot)	What	Understand place value / multiply divide by 10, 100, 1000		
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in gaps, develop fluency and understanding		
					How	Read and write numbers in words, identify value of digits in numbers, multiply/divide by 10, 100, 1000		
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)		6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		<ul style="list-style-type: none"><li>Read numbers aloud</li><li>Change between words and digits</li><li>Identify value of given digit</li><li>Multiply/divide by powers of 10</li></ul>		MWB questions <a href="https://www.mathspad.co.uk/i2/teach.php?id=writingNumbers1&amp;p=5">https://www.mathspad.co.uk/i2/teach.php?id=writingNumbers1&amp;p=5</a>		Model using place value columns Provide place value grids for reference (scaffold)		
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)		9) Review (daily/monthly)		Asynchronous (remote)
		Practice writing numbers in words & digits and identifying underlined values Worksheet to multiply/divide 10, 100, 1000		Answers shared, self-assess		MC quiz		

2	1	6) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>		What	How to order lists of numbers	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in gaps, develop fluency and understanding	
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		<ul style="list-style-type: none"><li>Ordering lists of large numbers</li><li>Ordering decimals</li><li>Ordering negatives</li><li>Ordering fractions</li></ul>			Decimals have same digits (using 0s) Number line used for negatives Refer to place value columns for large numbers		
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)		
Worksheet practice (followed by) We can work it out – Football Matches			Spot the mistake				

3	1	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>		What	Round accurately to nearest 10, 100, 1000 or up to 2dp / 3sf	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in gaps, develop fluency and understanding	
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		<ul style="list-style-type: none"><li>Reminder of rounding rules</li><li>Significant figures</li></ul>			Modelled answers with annotations		
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)		
<a href="https://www.mathspad.co.uk/teach/worksheets/rounding/roundingNearest10.php">https://www.mathspad.co.uk/teach/worksheets/rounding/roundingNearest10.php</a> <a href="https://www.mathspad.co.uk/teach/worksheets/rounding/significantFiguresTrueFalse.php">https://www.mathspad.co.uk/teach/worksheets/rounding/significantFiguresTrueFalse.php</a>			<a href="https://www.mathspad.co.uk/teach/worksheets/rounding/significantFiguresGridPuzzle.php">https://www.mathspad.co.uk/teach/worksheets/rounding/significantFiguresGridPuzzle.php</a> Guess my number <a href="https://www.mathspad.co.uk/teach/worksheets/rounding/guessMyNumber.pdf">https://www.mathspad.co.uk/teach/worksheets/rounding/guessMyNumber.pdf</a>				

4	1	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)		3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	Wacky Races (Access Maths) <a href="https://www.accessmaths.co.uk/uploads/4/4/2/3/44232537/_wacky_races_magic_number_race.pdf">https://www.accessmaths.co.uk/uploads/4/4/2/3/44232537/_wacky_races_magic_number_race.pdf</a>	What	List factors of numbers / Solve problems involving factors		
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in gaps, develop fluency and understanding		
	How				Identify factors via factor bug, identify HCF			
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)		6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		<ul style="list-style-type: none"><li>Factor definition</li><li>Factor finding</li><li>HCF</li></ul>		<a href="https://www.mathspad.co.uk/teach/linkedDocuments/factors/trueOrFalse.php">https://www.mathspad.co.uk/teach/linkedDocuments/factors/trueOrFalse.php</a>		Model factor bug or paired listing Emphasis on working systematically		
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)		9) Review (daily/monthly)		Asynchronous
Worksheet practice		Answers shared, self-asses		Spot the mistake				

5	1	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)		3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	Mathsbox 10Q skills check (10 skills from Y8/9)	What	List multiples of numbers / Solve problems involving multiples		
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in gaps, develop fluency and understanding		
	How				Identify multiples / identify LCM problems			
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)		6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		Definition Finding multiples & LCM Spotting an LCM question		MWB / MC Quiz		Discrimination – factors vs multiples Model game play		
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)		9) Review (daily/monthly)		Asynchronous (remote)
Last One Standing - <a href="https://www.accessmaths.co.uk/uploads/4/4/2/3/44232537/_last_one_standing_multiples_and_factors_game.pdf">https://www.accessmaths.co.uk/uploads/4/4/2/3/44232537/_last_one_standing_multiples_and_factors_game.pdf</a> <a href="https://www.accessmaths.co.uk/uploads/4/4/2/3/44232537/factors_and_multiples_game_cards.pdf">https://www.accessmaths.co.uk/uploads/4/4/2/3/44232537/factors_and_multiples_game_cards.pdf</a>		Answers shared, self-assess		Word question (exam Q)				

6	2	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	Recall questions based on number (MathsBot)	What	Prime factorisation	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in gaps, develop fluency and understanding	
				How	Write a number as the product of its primes		
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		Prime factor trees (LCM / HCF Venn diagrams)		Spot the mistake/ fill in the blanks	Model – focus on circling prime numbers Cover product or index notation		
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)		
Worksheet finding prime factorisation  Extend with LCM/HCF from Venn		Share answers, self-assess	<a href="https://www.mathspad.co.uk/teach/worksheets/primeNumbers/usingPrimeNumbers.php">https://www.mathspad.co.uk/teach/worksheets/primeNumbers/usingPrimeNumbers.php</a>				
7	1	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	Countdown numbers round	What	How to calculate indices	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in gaps, develop fluency and understanding	
				How	Work out numerical indices		
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		Calculating indices Index notation		MWB questions	Modelled example Comparisons examples		
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)
<a href="https://www.mathspad.co.uk/teach/worksheets/indices/indexNotationPositiveIndices.php">https://www.mathspad.co.uk/teach/worksheets/indices/indexNotationPositiveIndices.php</a>		Share answers, self-assess	Exam Q for comparing indices				

8	1	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>		What	Exam practice / technique	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Improve exam technique, revision of key topics, preparation for Nov mocks	
					How	Improved score on practice paper	
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		Review of a range of skills covered in past week / past year					
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)
		First 40 marks – non calculator paper (pairs)		Whole class marking, share the mark scheme, complete tracking sheets – www, ebi	Self-marked at end, scores tracked by teacher, record most common errors for focus in DNAs next week		