

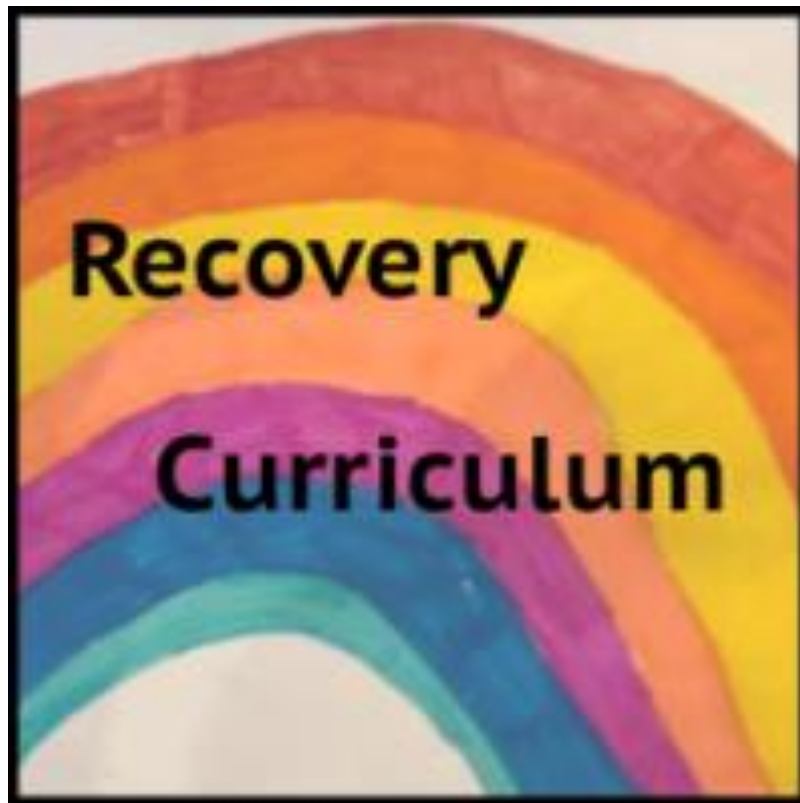
RECOVERY CURRICULUM

Subject: Mathematics

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Created: July 2020

Updated:



Subject:	Mathematics	Teacher:	LEG
Year:	8	Class:	8 Foundation
Unit title:	Factors, Multiples, Primes, Squares, Cubes.		
Duration:	2 weeks (7 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 the meaning of factors, multiples, and prime numbers
- Identify factors, multiples, and primes numbers,
- Find the highest common factor and lowest common multiple
- Identify squared and cube numbers.

Academy values – at Landau Forte Amington, we want students to be ambitious, brave and kind. How are these values promoted in this PoS?

- Ambitious – aims to quickly and effectively fill gaps then progress to existing SOL
- Brave – encourage students to persevere and show resilience through problem solving tasks

Kind – Culture of error fostered, classroom rules clearly established to support learning without ridicule

Content – what is being covered, ensuring breadth & depth?

National Curriculum/Exam Specification - how does the content link to the NC or Exam Spec?

Covers a range of skills and content overlapping the Year 7 and Year 8 scheme of learning 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?

Real life scenarios for LCM and HCF.

Implementation

GAPS

Identification – how are you going to identify the gaps in knowledge/skills?	Triage – 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

Key Concepts – what are the key concepts being taught?	Progression – how will studying these key concepts support progression to the traditional curriculum that has been planned?
Prime numbers, Multiples, Factors, Squares and cubes.	Bridges gaps between Y7 and Y8 scheme of learning, builds using spiral curriculum already planned

WELLBEING

Lockdown – how will students share their experiences of lockdown?	Social and Emotional – 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

Learning Skills – how are you going to re-establish the skills for learning?	Relationships – 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

Discussion – what are the discussion based opportunities?	Group – 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) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		1	Number of lessons in cycle:	Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	DNA (Times tables)	What
Blended (live and remote as independent study)	<input type="checkbox"/>			Why	Fill in the gaps, develop fluency and understanding		
4) New Material (previous learning/ new material)				5) Check for Understanding (questioning/checking)			6) Prepare for Practice (model/ scaffold)
Identifying factors	Can you list the factors of a given number on your MWB			Produce a definition of a factor. Model and scaffold how to lay out the factors of a given number.		Synchronous (live)	
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)		9) Review (daily/monthly)		Asynchronous (remote)	
Factor Spider https://www.goteachmaths.co.uk/wp-content/uploads/2019/03/Factors-Worksheet-B-A4.pdf		Cold call to share answers. Self-assess and correct work.		One factor review question https://www.goteachmaths.co.uk/wp-content/uploads/2019/03/Venn-Diagrams-Worksheet-B-A4.pdf			
		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"/>	Targeted DNA for class (Mathsbot)	What	Highest common factor	
2	z >	Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in the blanks, develop fluency and understanding.	
		4) New Material (previous learning/ new material)			5) Check for Understanding (questioning/checking)		6) Prepare for Practice (model/ scaffold)
						Synchronous	

	Recap previous learning – factors. New material – What is the HCF? How can we work this out from two numbers?	MWB questions. Factors or two numbers then HCF of those two numbers.	Model a solution to a question with input from students. Create a step by step guide.	Asynchronous (remote)
	7) Deliberate Practice (guided/ independent)	8) Feedback (light/deep)	9) Review (daily/monthly)	
	HCF paired/group activity – loop cards	Share results.	Review: HCF Bingo.	

		1) Lesson Type (classroom or blended for remote homework)	2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
3	Number of lessons in cycle:	Classroom (whole sequence completed)	Targeted DNA (Include times tables)	What	Multiples	Synchronous (live)
		Blended (live and remote as independent study)		Why	Fill the gaps. Develop fluency and understanding	
				How	To identify multiples of given numbers.	
			4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	
	What is a multiple? Identify multiples of given numbers.	Identify the multiples of given numbers on MWB – multiple choice. https://www.goteachmaths.co.uk/multiples/	Identify multiples. Model and scaffold how these can be put into a Venn diagram.			
	7) Deliberate Practice (guided/ independent)	8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)	
	https://www.goteachmaths.co.uk/wp-content/uploads/2019/03/Venn-Diagrams-Worksheet-A-A4.pdf	Share answers and self-assess.	Interactive – guess my number https://www.mathspad.co.uk/interactives/multiplesGame/multiplesGame.php			

		1) Lesson Type (classroom or blended for remote homework)	2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
4	Number of lessons in cycle:	Classroom (whole sequence completed)	Targeted DNA	What	Lowest common multiples	Asynchronous (remote)
		Blended (live and remote as independent study)		Why	Fill in the gaps, develop fluency and understanding.	
				How	To identify the LCM from two given numbers.	

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)
	Recap previous learning – Multiples https://www.goteachmaths.co.uk/finding-lowest-common-multiples-with-listing/		MWB – identify multiples of a given number. Circle the least common in both sets.	List the multiples of two given numbers. Circle the lowest number in both lists. Example solutions. Collaboratively form a step by step guide.	
	7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
	Paired Dice activity – Common multiples (students must show their working out and identify the LCM) file:///C:/Users/laura/AppData/Local/Temp/Temp1_t2-m-41282-common-multiples-game_ver_1.zip/Common%20Multiples%20Game.pdf or Worksheet – Finding common multiples worksheet.		Show-call results.	Write a text to a friend, explaining how to find the LCM of two given numbers. Give an example.	

5	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"/>	Targeted DNA		What	Prime numbers
	Blended (live and remote as independent study)	<input type="checkbox"/>			Why	Fill in the gaps, develop fluency and understanding.
					How	Identify prime numbers.
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	
What is a Prime? Identify prime numbers. https://www.goteachmaths.co.uk/prime-numbers/		MWB – How many prime numbers can you list?	Prime number investigation https://www.goteachmaths.co.uk/wp-content/uploads/2019/03/Prime-Numbers-Worksheet-A-A5.pdf			
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)		
True or false maze https://www.goteachmaths.co.uk/wp-content/uploads/2019/03/Prime-Numbers-True-or-False-Maze-A4.pdf		Self-assess and respond to verbal feedback.		Which two prime numbers sum to give you a prime number?		

6	Number of lessons in cycle:	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)		3) Learning Intentions (what, why & how)		Synchronous (live)
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	Targeted DNA	What	Square numbers		
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in the gaps and develop fluency and understanding		
	How				To identify the squared numbers			
	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)		6) Prepare for Practice (model/ scaffold)		Synchronous (live)	
	What are squared numbers? Identify squared numbers.		Pepper – Quick fire squared number questions		Demonstrate how the 'game' will work. Demonstrate how to play with a student. Can they identify a squared number?			
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)		9) Review (daily/monthly)		Asynchronous (remote)		
Squared number paired dice game – instructions included		Share answers, self-assess and respond to verbal feedback.		Quick-fire recall of squared numbers.				
7	Number of lessons in cycle:	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)		3) Learning Intentions (what, why & how)		Synchronous (live)
		Classroom (whole sequence completed)	<input checked="" type="checkbox"/>	Targeted DNA	What	Cubed numbers		
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	Fill in the gaps and develop fluency and understanding		
	How				Identify cubed numbers.			
	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)		6) Prepare for Practice (model/ scaffold)		Synchronous (live)	
	What are cubed numbers? Identify cubed numbers.		Pepper – Quick fire squared number questions		Demonstrate how cubes relate to cubed numbers.			
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)		9) Review (daily/monthly)		Asynchronous (remote)		
Cube Creator activity (on worksheet) Fortune teller cubed numbers https://content.twinkl.co.uk/resource/94/d8/t-n-5544-cubed-numbers-fortune-teller-activity-sheet-		Share answers, self-assess and respond to verbal feedback.		Square and cube puzzle review https://www.mathspad.co.uk/teach/worksheets/surds/squareCubeNumbersPuzzle.pdf				

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