

REMOTE LEARNING MODULE

Subject: Mathematics

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Updated:



Subject:	Mathematics	Teacher (if applicable):	
Year:	8	Ability/Class (if applicable):	Higher
Module title:	Factors, multiples, primes, squares and cubes		
Duration:	2 weeks <input checked="" type="checkbox"/>	4 weeks <input type="checkbox"/>	6 weeks <input type="checkbox"/> 8 weeks <input type="checkbox"/> Other:

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 module?

This module is designed to be delivered remotely to allow students to continue to access a well-constructed and relevant curriculum to enable them to have appropriate maths skills to succeed in life. In particular, this module focuses on ratio and proportion which have significant links to real life, especially the arts, cooking and the use of money

Aims - what do you want pupils to be able to know and do by the time they finish this module?

- Understand the meaning of factors, multiples, and prime numbers
- Identify factors, multiples, and primes numbers,
- Find the highest common factor and lowest common multiple
- Write a number as a product of its prime factors
- Use prime factorisation to find the highest common factor and lowest common multiple via a Venn diagram
- Solve problems using HCF and LCM

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

- 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 SOLs to “recover” lost learning and further develop student learning

Powerful Knowledge - what powerful knowledge is included in this module? 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.
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Implementation

KEY CONCEPTS

Key Concepts – what are the key concepts being taught?

Progression – how will studying these key concepts support progression to the next academic year, or key stage?

- Understand the meaning of factors, multiples, and prime numbers
- Identify factors, multiples, and primes numbers,
- Find the highest common factor and lowest common multiple
- Write a number as a product of its prime factors
- Use prime factorisation to find the highest common factor and lowest common multiple via a Venn diagram
- Solve problems using HCF and LCM

Bridges gaps between Yr7 and Yr8 SOLs, builds using spiral curriculum already planned

LEARNING

Synchronous – what are the synchronous aspects of the module, including new material taught?

Asynchronous – what are the asynchronous aspects of the module, including deliberate practice?

- 2 live lessons, and DIRT lesson after cycle
1. Squares, cubes and triangular numbers (revisit / new material) – with follow up Q&A clinic
 2. HCF, LCM, Prime factorisation (revisit / new material) – with follow up Q&A clinic

Deliberate practice (booklet)
Exit ticket for end of topic assessment

ENGAGEMENT

Accessibility – how are you going to ensure students without ICT can engage with this module?

Disengagement – how are you going to ensure students who are not engaging with this module are identified and supported?

Work pack will be printed and posted to students

MS Teams used to track and log submission of work, student, parental and tutor contact when not completed. CL informed of repeated disengagement.

FEEDBACK

End of Module – what is the end of module assessment, which will be used to evaluate the knowledge and skills gained?

Review Points – what takes place at the review points, to monitor the progress of learners and provide feedback, or support?

- Exit ticket to check key success criteria
- Understand the meaning of factors, multiples, and prime numbers
 - Identify factors, multiples, and primes numbers,
 - Find the highest common factor and lowest common multiple
 - Write a number as a product of its prime factors

2 Weeks Exit ticket at end of 2-week module

4 Weeks X

6 Weeks X

8 Weeks X

- Use prime factorisation to find the highest common factor and lowest common multiple via a Venn diagram
- Solve problems using HCF and LCM

Other

"Clinic" to take place once a week via MS Teams

Delivery (please note - a two week remote learning module may only take one lesson cycle)

		1) Lesson Type (remote or blended)	2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
1	2	Remote (live on MS Teams and remote as study)	<input checked="" type="checkbox"/>	Recall practice (MathsBot displayed on arrival)	What How to use squares, cubes and triangular numbers	
		Blended (live in classroom and remote as study)	<input type="checkbox"/>	Last lesson, last week, last month grids for each asynchronous lesson	Why Fill in the 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)
		Squares Cubes Triangular number investigation		Diagnostic questions used – answers in chat or held up on camera	Questions clearly modelled and scaffolded, students asked to copy down for reference	
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
		Section 1 – Squares, cubes and triangular numbers		Q&A clinic used to answer questions Solutions shared for students to self-assess, teacher will collate common errors through viewing submitted work and address in Q&A clinics	Quiz at the end of the cycle (MS Forms)	
2	5	Remote (live on MS Teams and remote as study)	<input checked="" type="checkbox"/>	Recall practice (MathsBot displayed on arrival)	What HCF, LCM, Prime factorisation	
		Blended (live in classroom and remote as study)	<input type="checkbox"/>	Last lesson, last week, last month grids for each asynchronous lesson	Why Fill in the 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)
		List HCF and LCM Prime factor trees Use a Venn diagram to find HCF, LCM		Diagnostic questions used – answers in chat or held up on camera	Questions clearly modelled and scaffolded, students asked to copy down for reference	
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
		Section 2 – HCF, LCM Section 3 – Prime Factorisation Section 4 – HCF, LCM from Prime Factorisation Section 5 – Mixed number problems.		Q&A clinic used to answer questions Solutions shared for students to self-assess, teacher will collate common errors through viewing submitted work and address in Q&A clinics	Quiz at the end of the cycle (MS Forms) Exit ticket for deep feedback submitted in session 7	