

Subject	Year 7 Threshold Knowledge – Autumn/Spring/Summer term	How to support students' learning
Maths	<p>Autumn Term</p> <p>Primes, Factors and Multiples -</p> <ol style="list-style-type: none"> 1. Identify square roots. 2. Identify cube numbers. 3. Identify cube roots. 4. Finding the lowest common multiple (LCM) (M227, U751). 5. Finding the highest common factor (HCF) (M698, U529). 6. Prime factor decomposition (M108, U739). <p>Place Value and Ordering Numbers -</p> <ol style="list-style-type: none"> 7. Rounding integers using significant figures (M994, U731). 8. Rounding decimals using significant figures (M131, U965). 9. Show solutions to inequalities on a number line (M384, U509). 10. Interpret representations on number lines as inequalities (M384, U509). 11. Understand the symbol \neq <p>Solving Problems with Addition and Subtraction -</p> <ol style="list-style-type: none"> 12. Solve financial maths problems (M901). 13. Solve problems involving tables and timetables (M963). 14. Multiplying decimals (M803, U293). 15. Dividing decimals (M262, U868). <p>Spring Term</p> <p>FDP Equivalence -</p> <ol style="list-style-type: none"> 16. Convert a decimal to a fraction (M264, U888). 17. Convert a decimal to a percentage (M264, U888). 18. Convert a fraction to a decimal (M264, U888). 19. Convert a fraction to a percentage (M264, U888). 20. Convert a percentage to a decimal (M264, U888). 21. Convert a percentage to a fraction (M264, U888). 	<ul style="list-style-type: none"> • Follow the teacher's guidance and use Sparx Maths to support home learning. • If your child is struggling with a particular skill encourage them to use the support materials or contact their teacher to resolve the issue. • Sparx Maths will send a homework update. Please encourage your child to complete the homework to the best of their ability. The homework is a recap of the skills they have been taught.

22. Compare and order fractions, decimals and percentages (M553, U594).
23. Calculate fractions of an amount with a calculator (M684, U916).
24. Find a percentage of an amount with a calculator (M905, U349).
25. Use a given fraction to find the whole and/or other fractions.

Operations with Directed Number -

26. Multiplication of directed numbers (M288, U548).
27. Division of directed numbers (M288, U548).
28. Add directed numbers (M106, U742).
29. Subtract directed numbers (M106, U742).
30. Understand and use order of operations (M521, U976).
31. Using a calculator (M757, U926).

Introduction to Algebra -

32. Given an algebraic input, find the output of a function machine (M428).
33. Find the function machine given an expression (M428).
34. Knowing key terminology for algebra (M813).
35. Simplify algebraic expressions by collecting like terms (M795, M531, U105).
36. Simplify algebra with multiplication (M813, U613).
37. Solve equations with one-step (M707, U755).
38. Substituting into expressions (M417, M327, U201).

Summer Term

Addition and Subtraction of

Fractions -

39. Converting from improper fractions to mixed numbers (M601, U692).
40. Converting from mixed numbers to improper fractions (M601, U692).
41. Ordering fractions and mixed numbers (U439).
42. Add and subtract fractions from integers expressing the answer as a single fraction (M835).

43. Adding fractions (M835, U736).
44. Subtracting fractions (M835, U736).
45. Use equivalence to add and subtract decimals and fractions (M958).

Sequences -

46. Find missing numbers within sequences (M241, U213).
47. Check whether a term can be in a sequence by inspection.
48. Describing types of sequences (M241, U213).
49. Describe and continue other sequences (Fibonacci, squares, cubes, triangular) (M981, U68).
50. Describe and continue geometric sequences (U958).
51. Generate linear sequences given an algebraic rule (M166, U530).

Geometric Notation and Reasoning -

52. Use the equality of vertically opposite angles (M163, U730).
53. Use the standard conventions for labelling the sides and angles of triangle ABC.
54. Use angle and line notation.
55. Apply the sum of angles in a triangle (M351, U628).
56. Apply the sum of angles in a quadrilateral (M679, U732).

Probability -

57. Understand and use probability phrases (M655, U803).
58. Understand and use the probability scale (M655).
59. Use the property that probabilities sum to 1 (M755, U683).
60. Writing probabilities as fractions, decimals and percentages (M938, U510).
61. Listing outcomes.
62. Construct sample space diagrams (M718, U104).