Year 7 Maths – Autumn Term

Intent

Wider Learning:	Prior learning:	Key vocabulary:
Place Value allows students to interpret and understand very large or small numbers including decimals.	Students will have used hundreds, tens, units, tenths, and hundredths in KS2 and this will be revisited during this unit.	1. Integer 2. Decimal 3. Order 4. Compare 5. Centi 6. Units 7. Metric 8. Kilo
Four Operations is the basics of all of maths through to the end of Year 11.	Students will have completed a large amount of basic calculations including BIDMAS.	9. Addition 10. Subtraction 11. Multiplication 12. Division 13. Remainder 14. Indices 15. Brackets 16. Borrowing
Factors and Multiples helps students break down relationships between numbers and will be used heavily throughout KS3.	Times tables would have been a large part of KS2 maths which will support both factors and multiples moving forward.	17. Factor 18. Multiple 19. Prime 20. Square 21. Cube 22. Root 23. Common 24. Composite

The big questions

1. How does place value impact number recognition?
2. Why is the metric system used instead of the imperial system?
3. How does the relationship between positive and negative numbers effect ordering?
4. What effect does adding a positive to a negative have and how does that compare with multiplying?
5. Does BIDMAS have as much impact as it appears to do when taught at primary level?
6. What relevance do prime numbers have when working with complex calculations?
7. Why do we need to be able to calculate HCF and LCM?
8. How does prime factorisation prove that every number has a unique identifier?

Implement

Order of learning

1. Checking understanding of prior knowledge from KS2.
2. Comparing integers using <, > and =
3. Ordering positive integers.
4. Ordering positive and negative integers.
5. Comparing decimals using <, > and =
6. Ordering positive decimals.
7. Ordering positive and negative decimals.
8. Rounding to whole numbers.
9. Round to tens, hundreds and thousands.
10. Rounding to decimal places.
11. Multiplying by 10, 100, and 1000
12. Recognising Centi, Milli and Kilo
13. Converting metric units.
14. Column addition and subtraction
15. Column addition and subtraction with decimals.
16. Long multiplication.
17. Long multiplication with decimals.
18. Short division.
19. Short division with decimals.
20. Adding and subtracting positive and negative numbers.
21. BIDMAS
22. Times tables.
23. Divisibility rules.
24. Factors of composite numbers.
25. Common factors and multiples
26. Powers and roots.
27. Prime numbers.
28. Prime factors.
29. Highest common factors.
30. Lowest common multiples.

Differentiation

G&T: Stretch questions for all topics as well as problem solving style questions.

Disadvantaged: Equipment available in classroom for students arriving unprepared.

SEND: Manipulatives available for students in certain context including number lines and counters.

EAL: Translations of keywords where required and minimal use of unnecessary words throughout,

Impact

Assessment and homework

40 mark assessment at the end of each topic covering all relevant areas and allowing students to check their understanding of the topic covered.

Homework

Weekly homework on Sparx Maths covering each of the sections taught during the previous week.

Feedback

Verbal feedback during assessment week as well as self-correction during feedback lesson.

Where will this be revisited?

Place Value will be directly revisited as part of Rounding and Estimation in Year 8.

Four Operations will be most directly revisited as part of Solving Linear Equations in Year 8.

Factors and Multiples will be revisited as part of Expressions and Equations in Year 7.