St John Learning Ladder

Name:

Year:5

Times Tables

11) I can **recall quickly all the multiplication and division facts for tables up to 12 x 12** and can use them confidently in larger calculations.

Multiplication

12) I can use a **formal vertical method to multiply HTU, THHTU and whole numbers with up to 2 decimal places** by single digit numbers.

13) I can use **related facts to multiply multiples of 10 and 100**
e.g. 2 x 3 = 6 20 x 30 = 600

14) I can **multiply TU x TU** using the grid method.

x	10	2
50	500	100
4	40	8

15) I can **multiply TU x TU using an expanded written strategy**.

16) I can **multiply TU x TU using long multiplication**.

Addition

17) I can **add large numbers in different contexts using formal column addition.**

18) I can use **rounding to estimate and check answers** to calculations.

19) I can **add whole numbers and decimals** with different numbers of decimal places using column addition.

20) I can add numbers mentally using increasingly large numbers e.g. (12 462 + 2300 = 14 762)

Fractions

16) I can **recognise and convert improper fractions to mixed number fractions.**

17) I can **add and subtract fractions with the same denominators including recognising and converting improper fractions to mixed numbers.**

18) I can **compare and order fractions where denominators are in the same fraction family.**

Subtraction

16) I can **subtract large numbers using formal column subtraction.** *Note: Exchanging should take place above the H, T and U columns.*

17) I can **use rounding to check answers to calculations.**

18) I can **subtract whole numbers and decimals** with different numbers of decimal places using column subtraction.

20) I can subtract numbers mentally using increasingly large numbers (e.g. 12 462 – 2300 = 10 162)

Place Value

19) I can **read write order and compare numbers to 1 000 000** (1 million) and determine the value of each digit

20) I **can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.**

21) I can **count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000.**

Properties of Number

5) I can **identify multiples and factors** Note: *including finding all factor pairs of a number and common factors of two numbers.*

6) I **know and use the vocabulary of prime numbers**, prime factor and composite (non-prime) numbers.

7) I can **work out if a number up to 100 is a prime number** and have **quick recall of all the prime numbers to 19.**

8) I can **recognise and describe number sequences** including those involving fractions and decimals and find the term to term rule.
e.g. add half

9) I can **recognise squared and cubed** numbers and use the correct notation (symbols to represent these).

Decimals

10) I can **compare and order decimals with up to two decimal places.**

11) I can **round decimals (with 2.d.p) to the nearest whole number or the nearest tenth.**

12) I can **recognise thousandths** and relate them to tenths and hundredths.

13) I can **read, write order and compare decimal numbers that have 1,2 or 3 decimal places**.

Problem solving

22) I can use **rounding to check answers** to calculations and determine, in the context of a problem, levels of accuracy.

23) I can **solve addition and subtraction multi-step problems** in context, explaining which operations to use and why.

24) I can **solve division problems interpreting remainders** in a context and adjusting the answer appropriately.
Note: Word problems when buying in bulk etc…

25) I can **solve problems involving multiplication and division** including scaling by simple fractions.

26) I can **solve multi step problems involving a combination of any of the 4 operations.**

27) I can **use all 4 operations to solve equivalence statements**
e.g. 5 x ☐ = 18 + 12

28) I can **investigate a problem involving place value and properties of number, and present my investigation in a clear and organised way.**
Note: Opportunities for Nrich investigations in maths books.

St John Learning Ladder			Name:	Class:5
Division	**Fractions (continued…)**	**Place Value (continued)**	**Measures**	**Perimeter and Area**
8) **I can divide 4 digit and 3 digit numbers by one digit using short division**	19) I can **add and subtract fractions with denominators in the same fraction family.**	22) I can **interpret negative numbers** in a real life context.	20) I can **convert between different units of measure** using my understanding of **times and divide by 10, 100 and 1000**	5) I can **measure and calculate the perimeter of shapes that need to be partitioned into rectangles** (compound shapes) in cm and m.
9) I can **solve complex problems involving division including with remainders** and round the answer appropriately in context	20) I can **multiply proper fractions and mixed numbers by a whole number** using diagrams and objects to explain my reasoning.	**Time**	21) I can **use all 4 operations to solve problems involving length, mass, capacity and scaling up or down.**	6) I can **measure and calculate the area of shapes that need to be partitioned into rectangles** (compound shapes) in cm^2 and m^2
10) I can begin to **represent a remainder as a fraction or decimal.** e.g. 76 ÷ 6 = 12 r3 = 12 3/6 = 12 $\frac{1}{2}$ = 12.5 *Note: Keep fractions to decimals relationships simple at this stage: $\frac{1}{2}$ = 0.5, $\frac{1}{4}$ = 0.25 and $\frac{3}{4}$ = 0.75.*	**Shape**	19) I can **solve problems which involve converting between units of time.** e.g. expressing the answer as days and weeks.	22) I can **estimate volume and capacity** and explore these concepts using practical materials.	7) I can **estimate the area of irregular shapes.**
Statistics	18) I can find missing lengths and angles in rectangles using my knowledge of related facts.	20) I can **solve problems involving time including reading simple timetables or time charts.**	23) I can **understand and use approximate equivalences between metric units and common imperial units** (Inches, pounds, pints)	8) I **can calculate and compare the area of rectangles** using cm^2 and m^2 including from scale drawings.
15) I can decide which representations of data are most appropriate and explain why.	19) I can calculate missing angles on a straight line (180°) or at a point (360°) or within a right angle (90°).			9) I can **find unknown lengths on compound shapes using my understanding of perimeter and area.**
16) I can complete, read and interpret information presented in tables and other graphical representations.	20) I can identify 3D shapes from 2D representations.		**Position and Direction**	**Percentage and Ratio**
17) I can solve comparison, sum and difference problems using information presented in line graphs	21) I can identify regular and irregular shapes using my knowledge of length of sides and angles.		9) I can identify, describe and draw the position of a shape on a grid after a translation.	1) I can recall and use equivalence between fractions, decimals and % to solve problems e.g. 10% of £5.00 or 50% of the team
	22) I can draw and measure given angles in degrees.		10) I can identify, describe and represent the position of a shape following a reflection or a translation. I can explain if the shape has changed or not.	2) I can recognise and understand % as part of 100 and write a % as a fraction and a decimal
	23) I can identify and compare acute, obtuse and reflex angles.			