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| UNIT | Maths topic | Learning objectives/expected outcomes | Assessment for Learning activities |
| 1 | **Number and place value (1)** | * Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
* Use decimal notation for tenths, hundredths and thousandths
* Partition, round and order decimals with up to three places, and position them on the number line
* Use negative numbers in context, and calculate intervals across zero

I can read the value of each digit in a number or decimalI can round large numbers to the nearest multiple of 10, 100 or 1000 I can round decimals to the nearest whole number and tenthI can put a set of decimal numbers in orderI can put numbers that include negative numbers in order | *What do you look for first when you order a set of numbers? Which part of each number do you look at to help you?**I started with a number and rounded it to the nearest integer. The answer was 42. What number could I have started with?**Are there any other numbers that it could have been? What is the largest/smallest number that I could have started with? How do you know?**A number is partitioned like this: 4 000 000 + 200 000 + 60 000 + 300 + 50 + 8**Write the number. Now read it to me.* *What is 14773.6 rounded to the nearest hundred?**What is 3.852 rounded to the nearest tenth? What if it was rounded to the nearest whole number?**Write these temperatures in order, starting with the lowest.**7.5˚ 6˚ -8˚ -3˚ -11˚ 2.5˚**Use these digits and arrange them like this: \_\_ . \_\_ \_\_ \_\_* *5 8 9 2**What is the largest decimal number you can make?* *What the smallest decimal number you can make?* *Make a decimal number as near as possible to 9.* *Make a decimal number between 2.5 and 2.9.**Write all the decimal numbers you have made in order, from smallest to largest.* |
| ... | **…** | … | *…* |
| 15 | **Patterns and number (2)** | * Identify common factors and common multiples of numbers
* Recognise that prime numbers have only two factors and identify prime numbers less than 100
* Find the prime factors of two-digit numbers
* Express missing number problems algebraically
* Find pairs of numbers that satisfy number sentences involving two unknowns
* Represent and interpret sequences, patterns and relationships and suggest and test hypotheses
* Construct and use simple expressions and formulae in words then symbols

I can find the highest common multiples of different numbers I can find the lowest common factors of different numbersI can tell you all the prime numbers up to 100 and find the prime factors of other numbersI can describe and explain sequences, patterns and relationshipsI can suggest hypotheses and test themI can write and use simple expressions in words and formulae I can solve ‘finding all possibilities’ problems | *Describe the relationship between terms in this sequence:**3, 6, 12, 24, 48…**What is the rule or function for the relationship between x and y:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *x* | *1* | *2* | *3* | *4* |
| *y* | *1* | *3* | *5* | *7* |

*Investigate which numbers to 30 have only one prime factor.**Predict what numbers to 60 will have only one prime factor when you test them.**What are the common factors of 36, 42 and 48? What is the highest common factor?**What are the prime numbers between 90 and 100?**Explain why a square number always has an odd number of factors.**Write down a formula for the cost (C) of m pencils each costing 45 pence.**A triangle has 3 angles: a, a + 15, a + 30.**What are the three angles in the triangle?**36 cakes are arranged on two plates.**The first plate has 12 more cakes than the second plate.**How many cakes are on each plate?**What is the value of each letter?**3(e + 6)= 18**c/4 = 20**15+(3a-1) = 23**Which three prime numbers multiply to make 231?* *\_\_ x \_\_ x \_\_ = 231**X and Y are two different whole numbers.*  *X + Y = 200* *X is 45 greater than Y.* *What are the numbers X and Y* |