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| **Core Knowledge Map** |
| Subject: **Mathematics** | Year: 10 (Foundation) | Term: Autumn 1 |
| What are we learning? |
|  A screenshot of a computer  Description automatically generated |
| How will I be assessed  |
| Retrieval tasks, exit tickets, end of half-term test. |
| Big questions: |
| Can You….?* Evaluate 72
* Give two possible values for $\sqrt{25}$
* Prove that the square root of 45 lies between 6 and 7
* Correctly work out 3 + 4 x 2 using BIDMAS
* Write any number as a unique produce of its prime factors
* Use a Venn diagram to sort information to find HCF and LCM
* Recall prime numbers up to 100
 |
| How does this build on previous learning? | How will this link to my future learning? |
| * Calculating powers and roots
* Finding factors and prime factors of a number.
* Finding HCF and LCM of a number
* Using basic index rules
* Convert large and small numbers to standard form.
 | * Index numbers appear in many topics and in some formulae for area and volume of shapes
* Order of operations will be important in future algebra work
 |
| Core knowledge: | Key vocabulary: |
| A **factor** of a number or algebraic expression divides that number or expression evenly with no remainder. A **multiple** is the product result of one number multiplied by another number.A **prime** number only has two factors, itself and one.**Rules** of indices:* $n^{a}×n^{b}= n^{a+b}$
* $n^{a}÷n^{b}= n^{a-b}$
* $\left(n^{a}\right)^{b}=n^{ab}$

**Know that**, n0 = 1 and $n^{\frac{1}{2}}=\sqrt{n}$  | Index (indices)FactorMultiplePowerSquare CubeRootOddEvenPrimeProduct |
| Need more help? Use the Sparx Independent Learning Codes above |

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