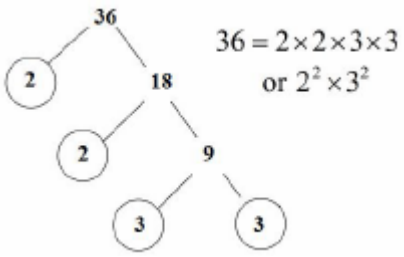
The Wells Academy

"Be Kind. Work Hard. Achieve Greatness."

Knowledge Organiser— Year 7 Term 1—Maths

Topic/Skill	Definition/Tips	Example
Integer	A **whole number** that can be positive, negative or zero.	$-3, 0, 92$
BIDMAS	BIDMAS stands for **'Brackets, Indices, Division, Multiplication, Addition and Subtraction'**. With strings of division and multiplication, or strings of addition and subtraction, and no brackets, work from left to right.	$6 + 3 \times 5 = 21, not\ 45$ $5^2 = 25$, where the 2 is the index/power. $12 \div 4 \div 2 = 1.5, not\ 6$
Multiple	The result of multiplying a number by an integer. The **times tables** of a number.	The first five multiples of 7 are: $7, 14, 21, 28, 35$
Factor	A number that **divides exactly** into another number without a remainder.	The factors of 18 are: $1, 2, 3, 6, 9, 18$
Lowest Common Multiple (LCM)	The **smallest** number that is in the **times tables** of each of the numbers given.	The LCM of 3, 4 and 5 is 60 because it is the smallest number in the 3, 4 and 5 times tables.
Highest Common Factor (HCF)	The **biggest** number that **divides exactly** into two or more numbers.	The HCF of 6 and 9 is 3 because it is the biggest number that divides into 6 and 9 exactly.
Prime Number	A number with **exactly two factors**. A number that can only be divided by itself and one.	The first ten prime numbers are: $2, 3, 5, 7, 11, 13, 17, 19, 23, 29$ The number **1 is not prime**, as it only has one factor, not two.
Prime Factor	A factor which is a prime number.	The prime factors of 18 are: $2, 3$
Product of Prime Factors	Finding out which **prime numbers multiply** together to make the **original** number. Use a **prime factor tree.** Also known as 'prime factorisation'.	 $36 = 2 \times 2 \times 3 \times 3$ or $2^2 \times 3^2$
Decimal	A number with a **decimal point** in it. Can be positive or negative.	$3.7, 0.94, -24.07$
Remainder	The amount '**left over**' after dividing one integer by another.	The remainder of $20 \div 6$ is 2, because 6 divides into 20 exactly 3 times, with 2 left over.