Year 5 Autumn 2 Maths Knowledge Organiser

Number and Place Value
Key vocabulary

Term	Definition	Example
factor	a number that divides exactly into another number	factors of 12 = 1, 2, 3, 4, 6, 12
common factor	factors of two numbers that are the same	common factors of 8 and 12 = 1, 2, 4
prime number	a number with only 2 factors: 1 and itself	2, 3, 5, 7, 11, 13, 17, 19..
composite number	a number with more than two factors	12 (it has 6 factors)
prime factor	a factor that is prime	prime factors of 12 = 2, 3
multiple	a number in another number's times table	multiples of 9 = 9, 18, 27, 36…
common multiple	multiples of two numbers that are the same	common multiples of 4 and 6 = 12, 24…
square numbers	the result when a number has been multiplied by itself	25 (5^2 = 5x5) 49 (7^2 = 7x7)
cube numbers	the result when a number has been multiplied by itself 3 times.	8 (2^3 = 2x2x2) 27 (3^3 = 3x3x3)

Roman numerals

1	I
5	V
10	X
50	L
100	C
500	D
1000	M

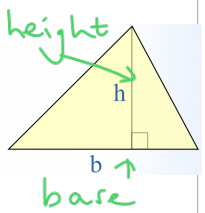
X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

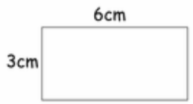
Statistics

Carroll diagram and Venn diagram	Carroll diagram: A table to organise information with yes or no questions Venn diagram: A diagram representing mathematical or logical sets pictorially
Frequency diagram	The frequency of a particular data value is the number of times the data value occurs. Often recorded using tallies.
Bar chart	A diagram in which the numerical values of variables are represented by the height or length of lines or rectangles of equal width.
Line chart/graph	A type of chart which displays information as a series of data points called 'markers' connected by straight line segments

Fractions and area

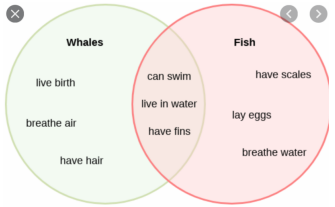
improper fraction	it is a **fraction** in which the numerator (top number) is greater than or equal to the denominator (bottom number e.g $\frac{5}{2}$
mixed number	It is a whole **number**, and a proper **fraction** represented together e.g $1\frac{2}{3}$
area of a triangle	formula- $area = \frac{b \times h}{2}$ $= \frac{6 \times 4}{2}$ $= \frac{24}{2}$ $= 12cm^2$
area of rectangle	formula- length x width $area = 6 \times 3$ $= 18cm^2$

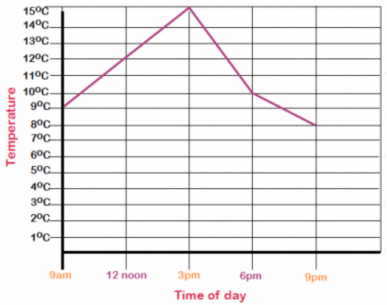




Can you identify the names of these diagrams?

	Shapes with curved lines	Shapes with straight lines
Pink shapes		
Blue shapes		





Type of Pet	Tally	Frequency
Dog	卌 卌 ||	12
Cat	卌 ||	7
Goldfish	卌 |	6
Budgie	|||	3
Hamster	||	2
Lizard	|	1
Snake	|	1
Rabbit	|||	3