EMS WEEKLY BULLETIN

19th January 2024

Dear Parents/Carers,

Good afternoon and welcome to this week's parent bulletin.

Year 6 SATS Knowledge Organiser

At the recent SATS information evening, parents asked what they could do to support their child's maths learning. One of the ways that parents could support the learning that takes place at school is through asking just 5 short questions a day. Your child will have come home today with a knowledge organiser, displaying key maths facts that, if learnt and recalled, will make problem solving significantly easier.

These key facts are so important in allowing the children to access problems and lighten their cognitive load, eg. when finding the area of a rectangle with a length of 9cm and a width of 7cm, the children automatically can recall the formula for area (length x width) and can also automatically recall the time table fact relating to 7x9 = 63. This is called automaticity.

Automaticity is the level of learning you have achieved when you can do something accurately and quickly while you are doing something else. It is "automatic" because you don't have to stop and think about it; you can do it while concentrating on something else.

Feel free to use the knowledge organiser (a copy is on the last page of this bulletin - perhaps stick it on the fridge) and ask just 5 short questions based on the facts you read.

I have tried this out this week and my starting 5 questions I asked my daughter were:
1. How many cm are in 1 metre?
2. How many sides does a hexagon have?
3. What is one tenth as a decimal and a fraction?
4. Which months have 31 days?
5. What are the first 5 prime numbers?

Asking just 5 questions a day from the knowledge organiser is a quick but effective way of building up vocabulary and knowledge and also gives parents an insight into some of the key topics covered in year 6.

Brockenhurst College visit

We were delighted to welcome Mina from Brockenhurst who came to talk to Year 8 about their post-16 education opportunities and options. This was the first time we have had a presentation from a sixth form college and it gave us all an insight into the courses offered and beautiful grounds that the college is situated in. Mina talked about vocational courses such as beautician and engineering as well as the new T-Levels. She also showed a film on the extra enrichment clubs that pupils can join. As she left, Mina commented on how attentive, polite and engaged the year 8 pupils were. Please talk at home to your children about their career aspirations - we focus on careers in our KS3 Wellbeing lessons this term.

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KS3 Science

It has been another very practical week in Science. Year 7s have been investigating the relationship between mass and weight. Year 8s have recently learned about natural selection, with students investigating favourable and unfavourable variation.

Art Club Challenge

ART CLUB CHALLENGE this Spring Term 1 is to design a Poster, flyers and Tickets for the upcoming School Show - Musicals through the Ages. Lots of superb designs are flooding in already.
Deadline for entries to Mrs Christopher in the Art Room Thursday 8th February.

We wish you all a great weekend and look forward to seeing everyone on Monday morning.

Mr Rob Christopher and Mr Alister Barker.

Multiplication and division 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 ($5^2 = 5 \times 5$) , 49 ($7^2 = 7 \times 7$)
cube numbers	the result when a number has been multiplied by itself 3 times	8 ($2^3 = 2 \times 2 \times 2$) , 27 ($3^3 = 3 \times 3 \times 3$)

2-D shapes

Name	No. of sides
quadrilateral	4
pentagon	5
hexagon	6
heptagon	7
octagon	8
nonagon	9
decagon	10

Types of triangle

Types of quadrilateral

Area is the amount of space inside a 2D shape, usually measured in cm² or m².
Area of a triangle = (base × height) ÷ 2
Area of a parallelogram = base × height
(Height = perpendicular height)

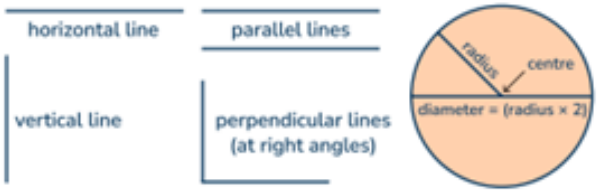
polygon = shape with straight sides
regular = all sides / angles the same
irregular = sides / angles **not** the same

Angles

full turn	360°
half turn	180°
right angle	90°
acute angle	< 90°
obtuse angle	> 90°, < 180°
reflex angle	>180°
angles on a straight line	180°
angles in a triangle	180°
angles in a quadrilateral	360°

Shape vocabulary

Perimeter = measure around the edge
Circumference = perimeter of a circle



Measurement conversions

Month	Days
January	31
February	28 (29 in leap year)
March	31
April	30
May	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31

1 year = 365 days (≈ 52 weeks)
Leap year = 366 days

1 **centi**metre	10mm
1 metre	100cm
1 **kilo**metre	1,000 m
1 mile	1.6 km
1 kilometre	0.625 ($\frac{5}{8}$) mile
1 **kilo**gram	1,000 grams
1 litre	1,000 **milli**litres

Roman numerals

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

Coordinates

Read coordinates along the x-axis (horizontal) first, then the y-axis (vertical). e.g. (3,-4) = go right 3, down 4.

3-D shapes

	square-based pyramid	triangular-based pyramid or tetrahedron	triangular prism
faces (the flat sides)	5	4	5
edges	8	6	9
vertices (the points where the edges meet)	5	4	6

Volume = the amount of space a 3D shape takes up, usually measured in cm³ or m³
Volume of a cuboid = length × width × height

Fractions, decimals and percentages

$\frac{1}{100}$	0.01	1%	÷ 100
$\frac{1}{20}$	0.05	5%	÷ 20
$\frac{1}{10}$	0.1	10%	÷ 10
$\frac{1}{5}$	0.2	20%	÷ 5
$\frac{1}{4}$	0.25	25%	÷ 4
$\frac{1}{2}$	0.5	50%	÷ 2
$\frac{3}{4}$	0.75	75%	÷ 4, × 3
1	1	100%	÷ 1

The mean

The mean is a type of average. To find the mean, add up all the numbers and divide by how many there are. E.g. the mean of 4, 5, 3, 4 is 4, because 4 + 5 + 3 + 4 = 16, and 16 ÷ 4 = 4