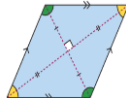
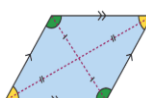
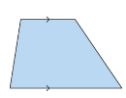
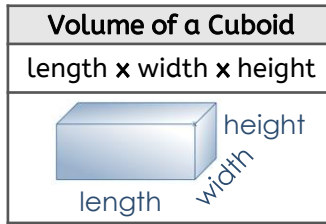

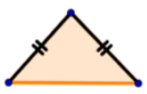
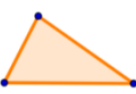



Year 6 Knowledge Organiser

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 and 4
prime number	A number with exactly two factors	2, 3, 5, 11, 13, 17, 19...
composite number	A number with more than two factors	12 (as it has six factors)
prime factor	A factor that is prime	Prime factors of 12: 2, 3
multiple	A number that is 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	A result when a number has been multiplied by itself	25 (52 = 5x5) 49 (72 = 7x7)
cube numbers	When a number has been multiplied by itself three times	8 (23 = 2x2x2) 27 (33 = 3x3x3)

Parallelogram	Rhombus	Trapezium
		
Two pairs of parallel sides	All sides have the same length and are parallel	One pair of parallel sides



Equilateral	Isosceles	Scalene	Right angled
			
3 equal sides and 3 angles of 60°	2 equal sides and 2 equal angles	No equal sides or angles	One angle is a right angle (90°)

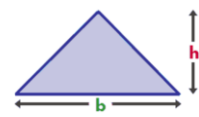
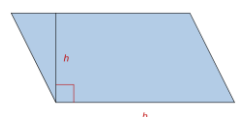
Fraction	Decimal	Percentage
$\frac{1}{100}$	0.01	1%
$\frac{1}{20}$	0.05	5%
$\frac{1}{10}$	0.1	10%
$\frac{1}{5}$	0.2	20%
$\frac{1}{4}$	0.25	25%
$\frac{1}{2}$	0.5	50%
$\frac{3}{4}$	0.75	75%
1	1	100%
$\frac{2}{5}$	0.4	40%
$\frac{4}{5}$	0.8	80%

Measurement Conversions


1cm	10mm
1m	100cm
1km	1,000m
1 mile	1.6km
1km	0.625 (5/8 mile)
1kg	1,000 grams
1 litre	1,000 millilitres

Full turn	360°
Half turn	180°
Right angle	90°
Acute angle	<90°
Obtuse angle	<180°
Reflex angle	>180°
Angle on a straight line	180°
Angles inside a triangle	180°
Angles inside a quadrilateral	360°


Name	Sides	Roman Numerals	
quadrilateral	4	1	I
pentagon	5	5	V
hexagon	6	10	X
heptagon	7	50	L
octagon	8	100	C
nonagon	9	500	D
Decagon	10	1,000	M

Area of a triangle	Area of a parallelogram
(base x height) ÷ 2	base x height (<i>Height = perpendicular height</i>)
	


Shape Vocabulary




Perpendicular lines (at a right angle)



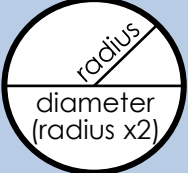
Vertical line



Horizontal line



Parallel lines

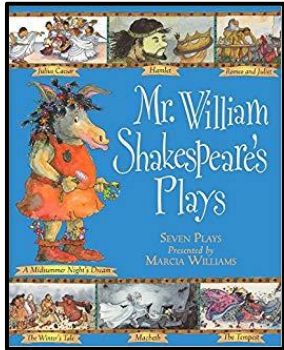


Perimeter = measure around the edge
Circumference = perimeter of a circle

Month	Days
January	31 days
February	28 days
March	31 days
April	30 days
May	31 days
June	30 days
July	31 days
August	31 days
September	30 days
October	31 days
November	30 days
December	31 days
1 year = 365 days Leap year = 366 days	



Core Text



Mr. William Shakespeare's Plays
Marcia Williams

William Shakespeare

William Shakespeare was a famous 16th and 17th century English playwright, poet and actor.



Shakespeare's plays fall under three headings: histories, comedies and tragedies.

Modern Retellings: Shakespeare

Shakespeare's plays often share similar **conventions** and **themes**:

Histories (e.g. *King John*, *Henry V*, *Richard II*)

- Not necessarily historically accurate
- Central themes of the gain and loss of power, and divine right
- Discussion on what makes a good, wise, and successful ruler

Comedies (e.g. *The Tempest*, *Twelfth Night*, *As You Like it*)

- Complex plots involving mistaken identity
- Characters disguised as a member of the opposite sex
- Often involve romance
- Plots usually end happily

Tragedies (e.g. *Macbeth*, *King Lear*, *Hamlet*, *Romeo & Juliet*)

- Tragic protagonists have a fatal flaw that propels them towards their downfall
- Plots follow the rise and fall of the key character (often a powerful nobleman)

Features of Text Type: Journalism

The main purpose of news reports is to inform the public about current events.

However, within the mass media, there can be many other purposes and motivations for creating 'news', including to persuade the reader to a particular way of thinking (e.g. to discredit somebody or to advertise a product), and to entertain the reader (for example through mockery or sarcasm).

A **headline** gives a concise overview of what the report is about. Depending on the purpose of the article, alliteration, rhyme or a pun can be used to grab the reader's attention.

A brief **introductory paragraph** provides a broad view of **what** happened, **who** was involved and **where** and **when** the event took place.

Events in the main body of the text are mostly recounted in **chronological order**, although this can be broken to provide the reader with relevant background information.

As news is a type of recount, the events are told using **past tense** verb forms from a **third person** viewpoint using a **formal, factual, impersonal tone**.

Quotations are demarcated with inverted commas and the related punctuation rules.

Direct and reported speech from people involved, experts or witnesses are used to express opinions and emotions and to validate points.

Images with captions are often used to spark the reader's interest and illustrate or exemplify details of the report.



Key Vocabulary

artery	an artery is a type of blood vessel that transports blood away from the heart to the organs and other tissues in the body.
blood vessel	a blood vessel allow blood to be transported to all the parts of the body. Arteries, veins and capillaries are blood vessels.
capillary	a capillary is a very small blood vessel with thin walls. They exchange materials between the blood and cells of the tissues and organs
deoxygenated blood	blood that is high in carbon dioxide and low in oxygen.
excretion	the process of removing waste products.
oxygenated blood	blood that is high in oxygen and low in carbon dioxide.
plasma	plasma is the yellow fluid that the blood cells are in. It transports protein, nutrients, and hormones, around the body. Plasma is about 90% water.
platelet	platelets help blood clot where there is a wound, this stops the wound from bleeding
respiration	a process that provides the energy needed by our organs to function.
white blood cell	white blood cells defend our body against diseases.
vein	a type of blood vessel that transports blood from the capillaries back to the heart.

The Big Picture

Living things need a source of **energy** to carry out their life processes.

The **digestive system** breaks down food into small molecules, such as glucose. This glucose, alongside the oxygen that the lungs bring into the body, is used in a process called **respiration**. Respiration releases energy.

The circulatory system is responsible for moving the **glucose** and the **oxygen** to the cells so they can respire.

The circulatory system

- The circulatory system is made up of the **heart** and **blood vessels**.
- The heart is an organ that pumps blood around the body. It has 4 chambers.
- Blood enters the heart through blood vessels.
- The right side of the heart pumps deoxygenated blood to the lungs where oxygen is collected.
- The left side of the heart pumps oxygenated blood to the rest of the body.
- Arteries are big blood vessels with thick walls.
- Veins are big blood vessels with thin walls and valves.
- Capillaries are very small blood vessels that can get deep into organs.



The lungs provide the blood with **oxygen**.

The heart pumps **deoxygenated blood** to the lungs.

The heart pumps **oxygenated blood** through blood vessels called **arteries**.

Deoxygenated blood and nutrients travel back to the heart through blood vessels called **veins**.

The blood travels to all other body parts, delivering oxygen, water and nutrients.

