





Knowledge Organisers
Year 7R
Spring 2020

Knowledge Organisers

Autumn Term Knowledge Organisers still need to be brought to school every day, alongside this one.

Some subjects have knowledge organisers which last two terms or even the whole year. To save on paper these are not printed again and students will need to refer to them in the Autumn Term booklet. Also some subjects like Design Technology organise the curriculum on a carousel, as such all the organisers for that subject are in the Autumn Term booklet.

Contents

An introduction to Knowledge Organisers

Art

Computing

English

Geography

History

Mathematics

MFL

Music

PSHE

Science

An Introduction to Knowledge Organisers

What is a Knowledge Organiser?

A knowledge organiser is a document, usually one side of A4, occasionally two, that contains key facts and information that children need to have a basic knowledge and understanding of a topic, or in some cases a series of topics.

Students are expected to bring their Knowledge Organiser Booklet to school every day. Students will be issued with a new booklet each term. However, it is important they keep the booklets to help with revision for end of year exams.

What are the benefits of knowledge organisers?

The main benefit of knowledge organisers is that they give students and parents the 'bigger picture' of a topic or subject area. Some topics can be complicated, so having the essential knowledge, clear diagrams, explanations and key terms on one document can be really helpful.

Research shows that our brains remember things more efficiently when we know the 'bigger picture' and can see the way that nuggets of knowledge within that subject area link together. Making links, essentially, helps information move into our long-term memory.

How can the students use them?

As mentioned earlier, students are expected to bring their Knowledge Organiser Booklet to school everyday. In lessons they can be used in a number of ways, for example, to look up the meaning of key words, spell words correctly and do some additional work if they have finished classwork.

At home knowledge organisers can be used to support homework, independent work and revise for tests and exams. Two quick and easy ways to do this are:

1. **Look, cover write, check** – look at part of the knowledge organiser, cover it, write as much as you can remember and then check it
2. **Word up** – Pick out any words you don't understand. Use a dictionary or thesaurus to find the meaning. If they don't help ask your teacher.

The more often you do this the better. YouTube has some clips on them; search 'Mr Garner look, cover, write, and check' and 'Mr Garner word up'

How can parents use them?

- Read through the organiser with your son/daughter – if you don't understand the content then ask them to explain it to you – 'teaching' you helps them to reinforce their learning.
- Test them regularly on the spellings of key words until they are perfect. Get them to make a glossary (list) of key words with definitions or a list of formulae.
- Read sections out to them, missing out key words or phrases that they have to fill in. Miss out more and more until they are word perfect.

How the booklet is organised

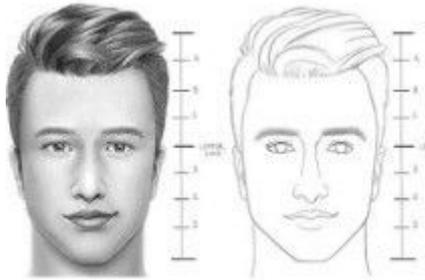
The knowledge organisers are in alphabetical order by subject.

YEAR 7 ART PORTRAITS

Knowledge Organiser - Term 2 & 3

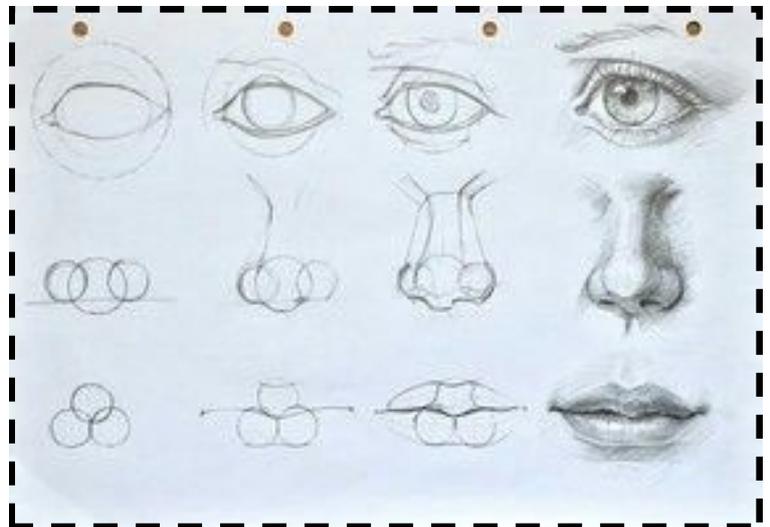
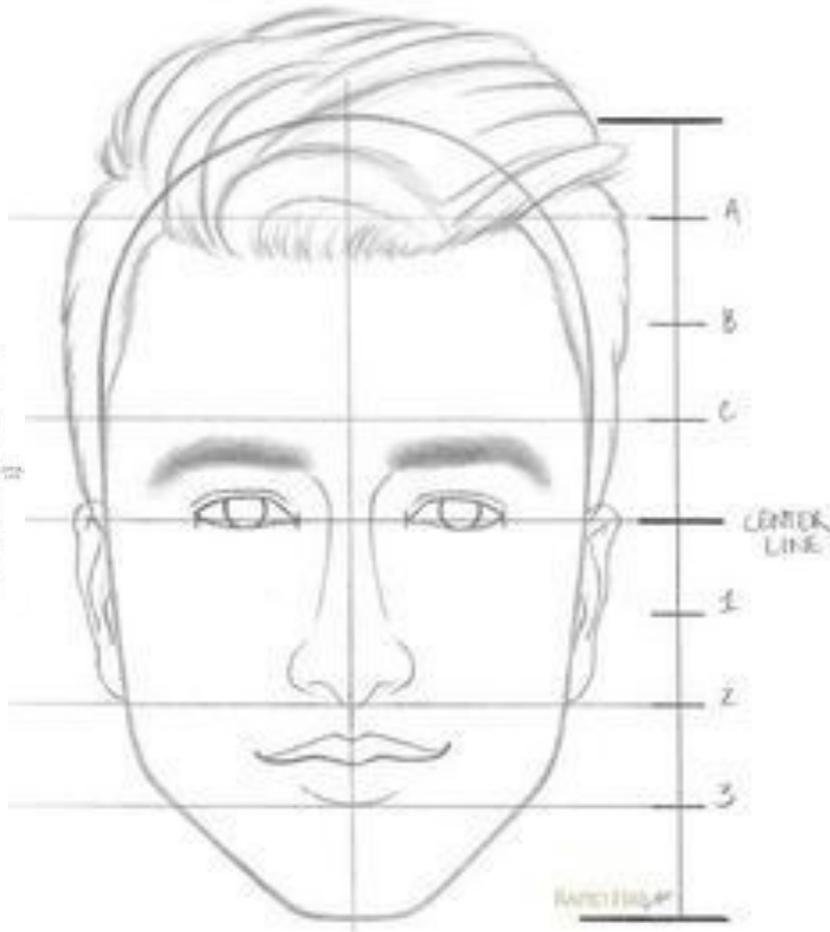
KEY WORDS

- Proportion
- Guide lines
- Tone
- Shape
- Portrait
- Texture
- Composition
- Symmetry
- Mark Making
- Highlight
- Technique
- Style
- Expression
- Skin tone



WHERE TO PLACE THE FEATURES PROPORTION RULES

- The eye line – typically half way between the top of the head and the chin
- The width of the distance between the eyes – the width of one eye
- Eye level to the end of the nose – most variable measurement and must be taken from the model. I assume that means that this measurement is important in getting a good likeness.
- The centre line of the mouth – typically about a third between the nose (end or base?) of the chin
- The inside corner of the eyes line up vertically with the edge of the nostrils
- The centre of the pupils line up vertically with the corners of the mouth



Well Known Portrait Artists

- Pablo Picasso
- Van Gogh
- Andy Warhol
- David Hockney
- Lucian Freud
- Frida Kahlo

TONAL	CROSSHATCH	LINEAR
<p>Gradually add more pressure for each darker value.</p> <p>Increase pressure</p> <p>Use very light pressure for 1st values</p>	<p>4 directions very close together.</p> <p>Lines cross in 4 directions.</p> <p>Lines cross in 3 directions.</p> <p>2 directions close together.</p> <p>Lines cross in 2 directions.</p> <p>Begin with short lines in 1 direction.</p> <p>"Crossover" lines from 1 to 4 directions</p>	<p>Saturate with fine lines as dark as possible.</p> <p>Increase pressure.</p> <p>More lines closer together.</p> <p>Small, short lines in 1 direction.</p> <p>Lines only in ONE direction</p>

- ### Skills
- Planning/proportion
 - Tone for 3D & surface qualities
 - Artist understanding/ application
 - Painting techniques
 - Measurements/Grid planning
 - Developing intentions and ideas
 - Colour mixing/ Presentation skills

This program draws a square. The **sequence** of instructions is important. If they are in a different order, the outcome of the program will be different.

This program does exactly the same thing. However, it uses a loop to repeat instructions, making it shorter and therefore easier to edit if necessary. This is known as **iteration**.

The program has been improved further here. It uses two **variables**, *sides* and *n*.

This makes the program more flexible, by being able to draw shapes of different number of sides.

The number of degrees to rotate has been calculated by an **arithmetic operation**: $360 \div \text{sides}$. We use '/' as the division operator (instead of \div) in computing.

Computing: Programming with Scratch

This time the program asks the user how many sides the shape should be. This is known as **user input** and the answer is stored in the variable *sides*.

Once the shape has been drawn, the program **outputs** text to the screen. It joins some text with the value of the variable *sides*. This is known as **concatenation**.

Finally, the user is given a choice of colours. This part of the program uses a **Boolean expression** to compare the user input with 'r'.

If this is *true* (the users types 'r'), the pen colour is red.

If this is *false* (the user doesn't type 'r'), the pen will be blue.

If... else statements are known as **selection**.

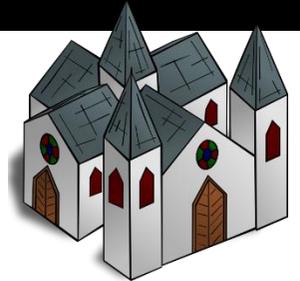
'BEOWULF'

- The oldest existing epic poem - probably written in 650AD. An epic poem is a long poem about adventures, heroes and quests; they can often be tragic
- Over 3,000 lines long
- Anglo-Saxon literature - 'Old English'
- The poet's name is unknown
- Set in 6th century and features characters inspired by Swedish and Danish royalty of that era.
- The world that *Beowulf* depicts and the heroic code of honour is typical of early English culture.



'THE CANTERBURY TALES' BY GEOFFREY CHAUCER

- Written in 1387-1400
- Written in Middle English which means there are many differences in modern spellings
- It is mostly written in the vernacular - this means the way people spoke
- Collection of 24 stories told by different pilgrims heading to Canterbury Cathedral in Kent
- The tales are told in order of the social class and status of the storyteller
- The Miller's Tale is a humorous story and is well-known. It ends with a carpenter kissing the bottom of Absolon instead of the beautiful Alison



'A MIDSUMMER NIGHT'S DREAM' BY WILLIAM SHAKESPEARE

- First performed in 1595
- One of Shakespeare's comedies
- It is typical of Shakespeare's comedies because it involves romance, a happy denouement, confusion, a mix-up and some slapstick/farcical elements such as Bottom gaining an ass' head!
- The play was often performed at courtly marriages because of its light heartedness and three marriages



KEY SPELLINGS FOR THIS SCHEME OF WORK

protagonist	Elizabethan	context	dialogue	climax
antagonist	comedy/comedic	archaic	soliloquy	medieval
dramatic	romance	myth	exposition	vernacular
Shakespeare(an)	humour	dramatic irony	denouement	farce

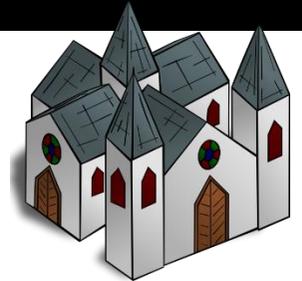
'BEOWULF'

- The oldest existing epic poem - probably written in 650AD. An epic poem is a long poem about adventures, heroes and quests; they can often be tragic
- Over 3,000 lines long
- Anglo-Saxon literature - 'Old English'
- The poet's name is unknown
- Set in 6th century and features characters inspired by Swedish and Danish royalty of that era.
- The world that *Beowulf* depicts and the heroic code of honour is typical of early English culture.



'THE CANTERBURY TALES' BY GEOFFREY CHAUCER

- Written in 1387-1400
- Written in Middle English which means there are many differences in modern spellings
- It is mostly written in the vernacular - this means the way people spoke
- Collection of 24 stories told by different pilgrims heading to Canterbury Cathedral in Kent
- The tales are told in order of the social class and status of the storyteller
- The Miller's Tale is a humorous story and is well-known. It ends with a carpenter kissing the bottom of Absolon instead of the beautiful Alison



'THE TEMPEST' BY WILLIAM SHAKESPEARE

- First performed in 1595 - his final play
- One of Shakespeare's comedies
- It is typical of Shakespeare's comedies because it involves romance, a happy denouement, confusion, a mix-up and some slapstick/farcical elements such as Stephano and Trinculo's scenes
- The exploration of power and legacy perhaps reflects Shakespeare's own reflections as he approached the end of his life - Prospero states. 'We are such stuff as dreams are made on'



KEY SPELLINGS FOR THIS SCHEME OF WORK

protagonist	Elizabethan	context	dialogue	climax
antagonist	comedy/comedic	archaic	soliloquy	medieval
dramatic	romance	myth	exposition	vernacular
Shakespeare(an)	humour	dramatic irony	denouement	farce

IMPRESSIVE PERSUASIVE TECHNIQUES		PUNCTUATION REMINDERS	
Rhetorical questions	Questions that don't require an answer. They prompt thinking about an issue.	*semi-colon	Used to replace 'and' in a compound sentence: <i>Like an angel, the sun shone; there wasn't a cloud to be seen.</i>
alliteration	Repetition of consonant sounds	*colon	Means 'Here's my evidence' and follows a simple statement: <i>Majestically, the princess created a stir: she was beautiful!</i>
Facts	Correct and provable information	*dash	Single: Used to emphasise a description at the end of a sentence: <i>Happily, the sun shone - its rays reached across the whole land.</i> Double: Used to emphasise a description with further emphasis: <i>The sun's rays - its burning, radiant rays - shone across the kingdom.</i>
opinions	A view formed about something that can't necessarily be proved		
rhetoric	Formal word for persuasion	SENTENCE STARTERS	
emotive language	Language that stirs the emotions	connective	Begin with a linking word to add, develop, change or emphasise ideas
superlatives	Word that end in '-est' or use 'most - ' to emphasise that something is stronger comparatively	fronted adverbial	Begin a sentence with an - ly word or other adverb (word that describes a verb)
tripling	Using three words or three phrases to emphasise and idea	2 x adjective starter	Begin with two adjectives; use a conjunction between them like 'and'
*irony	Suggesting the opposite is true	preposition starter	State where the subject is to begin the sentence
*hyperbole	A formal word for exaggeration or being 'over the top'!	*litotes	Begin with the negative: use 'Nothing...' or 'Never...' for example
*anaphora	Using a phrase to begin more than one clause of sentence, such as 'I Have a dream...' in Martin Luther King's famous speech	*simile starter	Begin with 'Like....' to begin with a simile

ORGANISING YOUR WRITING TO PERSUADE

Begin with a catchy introduction, offer some background, state your main ideas in detail and then finish with a powerful conclusion.

KEY SPELLINGS FOR THIS SCHEME OF WORK

rhetoric	alliteration	repetition	personification
persuasion	tripling	hyperbole	exclamation
irony	statistics	metaphor	interrogative (sentences)
anecdote	anaphora	simile	imperatives



Year 7 Geography

Unit 3: Ecosystems

Plants get their energy from the Sun. They are called **producers** because they make their own food.
 Animals are called **consumers** because they eat plants and other animals. They do not make their own food.
 Animals that eat other animals are called **predators**. The animals they eat are called **prey**.



KEYWORDS



LOOK
 SAY
 COVER
 WRITE
 CHECK

Tropical Rainforests

This biome is located on three continents:

- South America
- Africa
- South east Asia



The temperature ranges from 21 to 30 degrees Celsius. Rainfall remains high all year round.

The tropical rainforests are being cut down for the following reasons:

1. To sell the wood
2. To build on the land
3. To find minerals in the ground
4. To use the land for agriculture (cattle farming)

This means that:

1. Indigenous people lose their homes
2. Animals lose their habitat
3. Unique plants are lost forever
4. Less carbon dioxide is removed from the atmosphere. This will make the world a warmer place to live.



Deserts

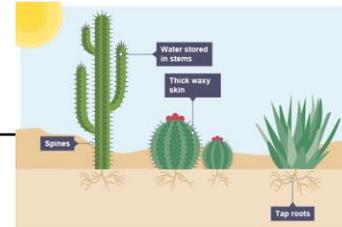
Deserts are found along the Tropic of Capricorn and the Tropic of Cancer. The **largest** desert is the **Sahara**.
 There is very little biodiversity in hot deserts because of the harsh climate.

In the day, temperatures can **exceed 40 degrees Celsius** but **drop below 0 degrees Celsius at night**.

Plant adaptations - Plants have developed special adaptations to survive the harsh climate.

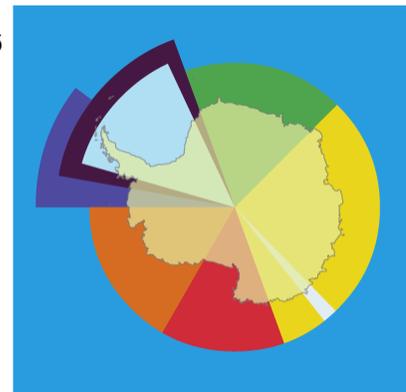
Spines -lose less water than leaves so are very efficient in a hot climate. They also stop animals from eating the plant.

Waxy skin - some leaves have a thick, waxy skin on their surface. This reduces water loss by transpiration.



Polar

Polar biomes, such as Antarctica, are cold and dry all year round. **99 per cent of it is covered by ice**.
 Antarctica is the **5th largest continent**, **25 per cent larger than Europe**.
 During the winter, much of the water surrounding Antarctica freezes.
 Countries have claimed ownership of parts of Antarctica.
 The **Antarctic Treaty** was agreed in 1961 to help control human activity in the location and also to resolve disagreements over territory.
 The biodiversity is low. **Emperor penguins** live in Antarctica. **Polar bears do not!**



	Definition
Food Chain	A series of organisms each dependent on the next as a source of food.
Biome	A large naturally occurring ecosystem such as tropical rainforest.
Deforestation	The removal of trees.
Adaptation	The process of change by which an organism becomes better suited to its environment.
Sustainable	The process of maintaining a balanced environment. It is where we act in a way to provide for the needs of today without compromising the needs of the future generations.

What was it like to live in Medieval Britain?

Big Question – How did life change for the people of Britain during the Medieval Era?

Timeline of Key Events

1066
William of Normandy led an invasion from France and defeated the last Anglo Saxon king, Harold II at the **Battle of Hastings**.

1075
William built many castles and **introduced the Feudal System** by **1075**.

1170
The Archbishop **Thomas Becket** was **murdered** following a fall out with Henry II.

1215
King John was forced to **sign the Magna Carta** that was meant to reduce his power.

1348
Black Death hits Britain and kills 1/3 of the population.

1381
English peasants were unhappy about paying tax to the King and marched to London to show how unhappy they were.

1485
Henry Tudor beat **Richard III** at the **Battle of Bosworth**.

Assessment Objectives

- To **understand** why William won at Hastings.
- To **reach a judgement** about how successful a Monarch William I was.
- To know and understand how Henry II **created conflict** with the Church.
- To understand what **caused** the Magna Carta.
- To learn about the **consequences** of the Black Death.
- To learn about the **causes** of the Peasant's Revolt.

Keyword

Definition

Monarch	King or Queen
Battle	A fight between armed forces
Christianity	Following the teachings of Jesus Christ
Heir	Next in line
Census	A national survey
Revolt	An armed uprising
Peasant	A poor farmer that rents land
Baron	Owens land for King and collects tax
Knight	Owens lands for King in exchange for fighting
Priest	A Christian holy person
Tax	Money paid to the Monarch or Government
Disease	An infection that impacts body functions
War	Armed conflict

Useful Websites

Key People

Edward the Confessor	
Harold Godwinson	
William of Normandy	
Henry II	
Thomas Becket	
John I	

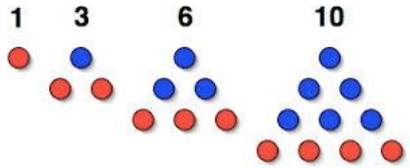
Year 7: Exploring fractions, decimals and percentages

Topic/Skill	Definition/Tips	Example
1. Fraction	A mathematical expression representing the division of one integer by another. Fractions are written as two numbers separated by a horizontal line.	$\frac{2}{7}$ is a 'proper' fraction. $\frac{9}{4}$ is an 'improper' or 'top-heavy' fraction.
2. Numerator	The top number of a fraction.	In the fraction $\frac{3}{5}$, 3 is the numerator.
3. Denominator	The bottom number of a fraction.	In the fraction $\frac{3}{5}$, 5 is the denominator.
4. Unit Fraction	A fraction where the numerator is one and the denominator is a positive integer.	$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$ etc. are examples of unit fractions.
5. Reciprocal	The reciprocal of a number is 1 divided by the number. The reciprocal of x is $\frac{1}{x}$ When we multiply a number by its reciprocal we get 1. This is called the 'multiplicative inverse'.	The reciprocal of 5 is $\frac{1}{5}$ The reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$, because $\frac{2}{3} \times \frac{3}{2} = 1$
6. Mixed Number	A number formed of both an integer part and a fraction part.	$3\frac{2}{5}$ is an example of a mixed number.
7. Simplifying Fractions	Divide the numerator and denominator by the highest common factor.	$\frac{20}{45} = \frac{4}{9}$
8. Equivalent Fractions	Fractions which represent the same value.	$\frac{2}{5} = \frac{4}{10} = \frac{20}{50} = \frac{60}{150} \text{ etc.}$
9. Percentage	Number of parts per 100.	31% means $\frac{31}{100}$
10. Percentages to Fractions	Percentage is just a fraction out of 100. Write the percentage over 100 and simplify.	$14\% = \frac{14}{100} = \frac{7}{50}$

11. Key
Conversions:

$\frac{1}{2}$	0.5	50%	$\frac{1}{5}$	0.2	20%
$\frac{1}{4}$	0.25	25%	$\frac{2}{5}$	0.4	40%
$\frac{3}{4}$	0.75	75%	$\frac{3}{5}$	0.6	60%
$\frac{1}{3}$	$0.\dot{3}$ (0.33333 ...)	33.33333...%	$\frac{4}{5}$	0.8	80%
$\frac{2}{3}$	$0.\dot{6}$ (0.66666 ...)	66.66666...%	$\frac{1}{10}$	0.1	10%
$\frac{1}{8}$	0.125	12.5%	$\frac{2}{10} = \frac{1}{5}$	0.2	20%
$\frac{2}{8} = \frac{1}{4}$	0.25	25%	$\frac{3}{10}$	0.3	30%
$\frac{3}{8}$	0.375	37.5%	$\frac{4}{10} = \frac{2}{5}$	0.4	40%
$\frac{4}{8} = \frac{1}{2}$	0.5	50%	$\frac{5}{10} = \frac{1}{2}$	0.5	50%
$\frac{5}{8}$	0.625	62.5%	$\frac{6}{10} = \frac{3}{5}$	0.6	60%
$\frac{6}{8} = \frac{3}{4}$	0.75	75%	$\frac{7}{10}$	0.7	70%
$\frac{7}{8}$	0.875	87.5%	$\frac{8}{10} = \frac{4}{5}$	0.8	80%
			$\frac{9}{10}$	0.9	90%

Year 7: Sequences

Topic/Skill	Definition/Tips	Example
1. Linear Sequence	A number pattern with a common difference .	2, 5, 8, 11... is a linear sequence
2. Term	Each value in a sequence is called a term.	In the sequence 2, 5, 8, 11..., 8 is the third term of the sequence.
3. Term-to-term rule	A rule which allows you to find the next term in a sequence if you know the previous term .	First term is 2. Term-to-term rule is 'add 3' Sequence is: 2, 5, 8, 11...
4. Fibonacci type sequences	A sequence where the next number is found by adding up the previous two terms	The Fibonacci sequence is: 1,1,2,3,5,8,13,21,34 ... An example of a Fibonacci-type sequence is: 4, 7, 11, 18, 29 ...
5. Triangular numbers	The sequence which comes from a pattern of dots that form a triangle. 1, 3, 6, 10, 15, 21 ...	

Year 7: Calculating with Percentages

Topic/Skill	Definition/Tips	Example
1. Increase or Decrease by a Percentage	<p>Non-calculator: Find the percentage and add or subtract it from the original amount.</p> <p>Calculator: Find the percentage multiplier and multiply.</p>	<p><u>Increase 500 by 20% (Non Calc):</u> 10% of 500 = 50 so 20% of 500 = 100 500 + 100 = 600</p> <p><u>Decrease 800 by 17% (Calc):</u> 100% - 17% = 83% 83% ÷ 100 = 0.83 0.83 x 800 = 664</p>
2. Percentage Multiplier	The number you multiply a quantity by to increase or decrease it by a percentage .	<p>The multiplier for increasing by 12% is 1.12</p> <p>The multiplier for decreasing by 12% is 0.88</p> <p>The multiplier for increasing by 100% is 2.</p>
3. Fractions to Decimals	Divide the numerator by the denominator using the bus stop method.	$\frac{3}{8} = 3 \div 8 = 0.375$
4. Decimals to Fractions	Write as a fraction over 10, 100 or 1000 and simplify.	$0.36 = \frac{36}{100} = \frac{9}{25}$
5. Percentages to Decimals	Divide by 100	$8\% = 8 \div 100 = 0.08$
6. Decimals to Percentages	Multiply by 100	$0.4 = 0.4 \times 100\% = 40\%$
7. Fractions to Percentages	<p>Percentage is just a fraction out of 100. Make the denominator 100 using equivalent fractions.</p> <p>When the denominator doesn't go in to 100, use a calculator and multiply the fraction by 100.</p>	<p>$\frac{3}{25} = \frac{12}{100} = 12\%$</p> <p>$\frac{9}{17} \times 100 = 52.9\%$</p>
8. Percentages to Fractions	<p>Percentage is just a fraction out of 100. Write the percentage over 100 and simplify.</p>	$14\% = \frac{14}{100} = \frac{7}{50}$

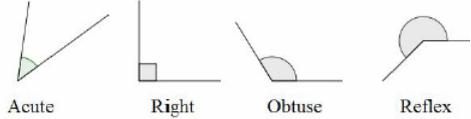
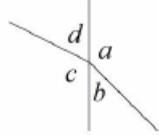
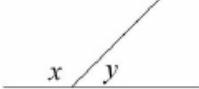
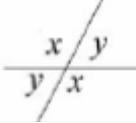
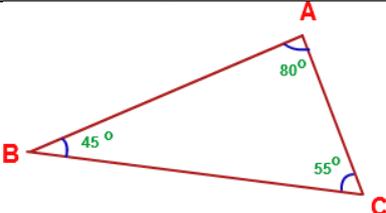
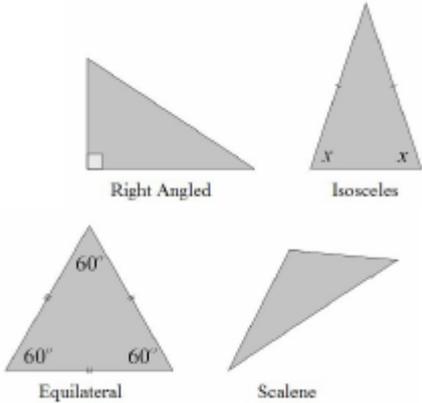
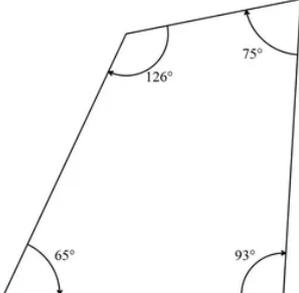
Year 7: Proportional Reasoning

Topic/Skill	Definition/Tips	Example
1. Ratio	Ratio compares the size of one part to another part . Written using the ':' symbol.	$3 : 1$ 
2. Proportion	Proportion compares the size of one part to the size of the whole . Usually written as a fraction.	In a class with 13 boys and 9 girls, the proportion of boys is $\frac{13}{22}$ and the proportion of girls is $\frac{9}{22}$
3. Simplifying Ratios	Divide all parts of the ratio by a common factor . Ensure the units are the same before you simplify.	$5 : 10 = 1 : 2$ (divide both by 5) $14 : 21 = 2 : 3$ (divide both by 7)
4. Ratios in the form $1 : n$ or $n : 1$	Divide both parts of the ratio by one of the numbers to make one part equal 1 .	$5 : 7 = 1 : \frac{7}{5}$ in the form $1 : n$ $5 : 7 = \frac{5}{7} : 1$ in the form $n : 1$
5. Sharing in a Ratio	1. Add the total parts of the ratio. 2. Divide the amount to be shared by this value to find the value of one part. 3. Multiply this value by each part of the ratio. Use only if you know the total .	Share £60 in the ratio $3 : 2 : 1$. $3 + 2 + 1 = 6$ $60 \div 6 = 10$ $3 \times 10 = 30, 2 \times 10 = 20, 1 \times 10 = 10$ £30 : £20 : £10
6. Ratio already shared	Find what one part of the ratio is worth using the unitary method .	Money was shared in the ratio 3:2:5 between Ann, Bob and Cat. Given that Bob had £16, found out the total amount of money shared. £16 = 2 parts So £8 = 1 part $3 + 2 + 5 = 10$ parts, so $8 \times 10 = £80$
7. Enlargement	The shape will get bigger or smaller . Multiply each side by the scale factor .	Scale Factor = 3 means '3 times larger = multiply by 3' Scale Factor = $\frac{1}{2}$ means 'half the size = divide by 2'

Year 7: Measuring Space

Topic/Skill	Definition/Tips	Example
1. Metric System	<p>A system of measures based on:</p> <ul style="list-style-type: none"> - the metre for length - the kilogram for mass - the second for time <p>Length: mm, cm, m, km Mass: mg, g, kg Volume: ml, cl, l</p>	<p><i>1 kilometre = 1000 metres</i> <i>1 metre = 100 centimetres</i> <i>1 centimetre = 10 millimetres</i></p> <p><i>1 kilogram = 1000 grams</i></p>
2. Imperial System	<p>A system of weights and measures originally developed in England, usually based on human quantities</p> <p>Length: inch, foot, yard, miles Mass: lb, ounce, stone Volume: pint, gallon</p>	<p><i>1 lb = 16 ounces</i> <i>1 foot = 12 inches</i> <i>1 gallon = 8 pints</i></p>
3. Metric and Imperial Units	<p>Use the unitary method to convert between metric and imperial units.</p>	<p><i>5 miles \approx 8 kilometres</i> <i>1 gallon \approx 4.5 litres</i> <i>2.2 pounds \approx 1 kilogram</i> <i>1 inch = 2.5 centimetres</i></p>

Year 7: Investigating Angles

Topic/Skill	Definition/Tips	Example
1. Types of Angles	<p>Acute angles are less than 90°.</p> <p>Right angles are exactly 90°.</p> <p>Obtuse angles are greater than 90° but less than 180°.</p> <p>Reflex angles are greater than 180° but less than 360°.</p>	 <p>Acute Right Obtuse Reflex</p>
2. Angles at a Point	<p>Angles around a point add up to 360°.</p>	 <p>$a + b + c + d = 360^\circ$</p>
3. Angles on a Straight Line	<p>Angles around a point on a straight line add up to 180°.</p>	 <p>$x + y = 180^\circ$</p>
4. Vertically Opposite Angles	<p>Vertically opposite angles are equal.</p>	
5. Angles in a Triangle	<p>Angles in a triangle add up to 180°.</p>	
6. Types of Triangles	<p>Right Angle Triangles have a 90° angle in.</p> <p>Isosceles Triangles have 2 equal sides and 2 equal base angles.</p> <p>Equilateral Triangles have 3 equal sides and 3 equal angles (60°).</p> <p>Scalene Triangles have different sides and different angles.</p> <p>Base angles in an isosceles triangle are equal.</p>	 <p>Right Angled Isosceles</p> <p>Equilateral Scalene</p>
7. Angles in a Quadrilateral	<p>Angles in a quadrilateral add up to 360°.</p>	

School subjects

le français	French
le théâtre	drama
la géographie/la géo	geography
la musique	music
la technologie	technology
l'anglais (m)	English
l'EPS (f)	PE
l'histoire (f)	history
l'informatique (f)	ICT
les arts plastiques (m)	art
le dessin	art
les mathématiques/maths (f)	maths
les sciences (f)	science
éducation religieuse/la religion	RE

High Frequency words

à	at
et	and
aussi	also
mais	but
très	very
trop	too
assez	quite
un peu	a (little) bit
pourquoi ?	why ?
parce que	because
car	because
tous les jours	everyday
toujours	always
aujourd'hui	today
pardon	excuse me
merci	thank you
avec	with
Est-ce que (tu)... ?	Do (you)... ?

The timetable

le lundi	on Mondays
le mardi	on Tuesdays
le mercredi	on Wednesdays
le jeudi	on Thursdays
le vendredi	on Fridays
le samedi	on Saturdays
le dimanche	on Sundays
À(neuf heures)	A (nine o'clock)
J'ai (sciences)	I've got (science)
le matin	(in) the morning
l'après-midi	(in) the afternoon
le mercredi après-midi on	Wednesday afternoon
la récréation/la récré	breaktime
le déjeuner	lunch

The school day

On a cours (le lundi)	We have lessons (on Mondays)
On n'a pas cours...	We don't have lessons...
On commence les cours à ...	We start lessons at...
On a quatre cours le matin	We have four lessons in the morning

Opinions

Tu aimes/Est-ce que tu aimes...?	Do you like... ?
Je préfère...	I prefer...
J'adore...	I love...
J'aime beaucoup...	I like...a lot.
J'aime...	I like...
J'aime assez...	I quite like...
Je n'aime pas...	I don't like...
Je déteste...	I hate...
C'est ma matière préférée.	It's my favourite subject.
Ma matière préférée c'est...	My favourite subject is...
Il aime	He likes
Elle aime	She likes
Oui, j'aime ça	Yes, I like that
Non, je n'aime pas ça	No, I don't like that
Je suis d'accord	I agree
Je ne suis pas d'accord	I don't agree
Moi aussi.	Me too
T'es fou/folle.	You're crazy.

Reasons

- Le/La prof est sympa.
- The teacher is nice.
- Le/La prof est (trop) sévère.
- The teacher is (too) strict.
- On a beaucoup de devoirs.
- We have a lot of homework.

Reasons

C'est ...	it is
intéressant	interesting
ennuyeux	boring
barbant	boring
facile	easy
difficile	difficult
génial	great
nul	rubbish
marrant	funny
amusant	fun/funny
assez bien	quite good
passionnant	exciting
chouette	great
pratique	practical
stupide	stupid

What time is it?

Il est...	It's...
huit heures	eight o'clock
huit heures cinq	five past eight
huit heures dix	ten past eight
huit heures et quart	quarter past eight
huit heures vingt	twenty past eight
huit heures vingt cinq	twenty five past eight
huit heures et demie	half past eight
neuf heures moins vingt-cinq	twenty five to nine
neuf heures et vingt	twenty to nine
neuf heures moins le quart	quarter to nine
neuf heures moins dix	ten to nine
neuf heures moins cinq	five to nine
midi	midday
minuit	midnight

Computers and mobile phones

Qu'est-ce que tu fais... ?	What do you do/are you doing?
...avec ton ordinateur ?	...on your computer ?
...avec ton portable ?	...on your mobile phone ?
Je joue....	I play.../ I am playing...
Je surfe sur internet.	I surf/I'm surfing the net.
Je tchatte sur MSN.	I chat/I'm chatting on MSN.
Je regarde des clips vidéo.	I watch/I am watching video clips.
Je télécharge de la musique.	I download/I'm downloading music.
J'envoie des SMS.	I text/I'm texting.
Je parle avec mes ami(e)s.	I talk/I'm talking to my friends.
J'envoie des emails.	I send/I'm sending emails.

What do you play ?

Je joue...	I play...
au basket	basketball
au billard	billiards/snooker
au foot(ball)	football
au hockey	hockey
au rugby	rugby
au tennis	tennis
au tennis de table	table tennis
au ping-pong	ping pong
au volleyball	volleyball
à la pétanque/aux boules	boules
sur la Wii	on the Wii

Examples of

Opinions + infinitives

Je préfère jouer
J'adore aller
J'aime faire
Je n'aime pas regarder
Je déteste parler

Connectives

et	and
mais	but
aussi	also
cependant	however

Tu es sportif/sportive ?	Are you sporty?
Je suis (assez) sportif/sportive	I am quite sporty
Je ne suis pas (très) sportif/sportive	I am not (very) sporty)
Mon sportif/Ma sportive préféré(e) est...	My favourite sports Person is...

Conjugation of regular -er verbs

-e
-es
-e
-ons
-ez
-ent

→

The verb jouer=

To play

Je joue
Tu joues
Il/Elle/On joue
Nous jouons
Vous jouez
Ils/Elles jouent

Frequency words (How often)

quelquefois	sometimes
souvent	often
tous les jours	every day
tous les soirs	every evening
tout le temps	all the time
de temps en temps	from time to time
une fois par semaine	once a week
deux fois par semaine	twice a week

Quand? When?

en été	in summer
en hiver	in winter
quand il y a du soleil	when it's sunny
quand il fait beau	when it's good weather
quand il fait chaud	when it's hot
quand il pleut	when it rains/is raining
quand il fait froid	when it's cold
le soir	in the evening
le weekend	on the weekend(s)
le samedi matin	on Saturday morning(s)

Qu'est-ce que tu aimes ?

What do you like ?

Qu'est-ce que tu aimes faire/jouer... ?

What do you like to do/play... ?

Qu'est-ce que tu fais ? What do you do ?

Je fais du judo	I do judo
Je fais du parkour	I do parkour
Je fais du patin à glace	I do/go ice skating
Je fais du roller	I do/go roller-skating
Je fais du skate	I do/go skateboarding
Je fais du vélo	I do/go cycling
Je fais de la danse	I do dance
Je fais de la gymnastique	I do gymnastics
Je fais de la natation	I do/go swimming
Je fais de l'équitation	I do/go horseriding
Je fais des promenades	I go for walks

High frequency words

sur	on
en (été)	in summer
quand	when
tout/toute/tous/toutes	all
par (deux fois par semaine)	per (twice a week)
d'habitude	usually
d'abord	first of all/firstly
ensuite	then/next
puis	then/next

What do you like doing?

J'aime...	I like...
...retrouver mes amis	...meeting my friends
...regarder la télé	...watching TV
...jouer sur ma PlayStation	...playing on my Playstation
...écouter de la musique	...listening to music
...faire les magasins	...going shopping
...faire du sport	...doing sport
...jouer au football	...playing football
...traîner avec mes copains	...hanging out with my mates
...téléphoner à mes copines...	...phoning my mates.

Schulfächer

Was ist dein
Lieblingsfach?

Mein Lieblingsfach ist ...

Meine Lieblingsfächer
sind ... und

Deutsch.

Englisch.

Französisch.

Religion.

Informatik.

Mathe.

Naturwissenschaften.

Werken.

Kunst.

Musik.

Theater.

Erdkunde.

Geschichte.

Sport

Turnen

School subjects

*What's your favourite
subject?*

*My favourite subject is
...*

*My favourite subjects
are...and..*

German.

English.

French.

RE.

ICT.

maths.

science.

design and technology.

art.

music.

drama.

geography.

history.

PE.

Meinungen

Ich mag + noun

Ich mag nicht + noun

Magst du.... + noun ?

Ich hasse + noun

Ich liebe + noun

Ich lerne gern

Ich lerne nicht gern

Ich + **verb**+ gern

Opinions

I like

I don't like

Do you like.. ?

I hate

I love

I like learning

I don't like learning

I like.....ing

Die Wochentage

Montag

Dienstag

Mittwoch

Donnerstag

Freitag

Samstag

Sonntag

Was hast du **am**

Montag?

Ich habe Deutsch **am**

Montag.

Days of the week

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

What have you got on

Monday(s)?

I've got German on

Monday(s).

Meinungen

Wie findest du

Deutsch?

Ich finde es ...

gut.

schlecht.

interessant.

langweilig.

einfach.

schwierig.

toll.

furchtbar.

Opinions

What do you think

of German?

I think it's ...

good.

bad.

interesting.

boring.

easy.

difficult.

great.

awful.

Connectives

und

aber

denn

and

but

because

HALF TERM 3 : Die Schule**Die Uhrzeit**

Wie viel Uhr ist
es?

Es ist neun Uhr.

Es ist neun Uhr
dreißig.

Wann beginnt

Deutsch?

Wann endet

Deutsch?

Um zehn Uhr

fünfzig.

Telling the time

What's the time?

It's nine o'clock.

It's nine-thirty.

When does

German start?

When does

German end?

At ten-fifty.

Probleme

Entschuldigung!

Ich habe ein Problem.

Wie schreibt man

das?

Ich verstehe nicht.

Wie bitte?

Wie heißt ... auf

Englisch?

Wie heißt ... auf

Deutsch?

Wie spricht man das

aus?

Ich muss mal.

Problems

Excuse me!

I've got a problem.

How do you write

that?

I don't understand.

Sorry?

What's ... in English?

What's ... in

German?

How do you

pronounce that?

I need to go to the

toilet.

Das Pausenbrot

Was isst du in der Pause?

Ich esse ...

einen Apfel.
eine Orange.
eine Banane.
ein Brötchen.
Kuchen.
Schokolade.
Kekse.
Chips.
Bonbons.

Ich esse nichts.

Was trinkst du in der Pause?

Ich trinke ...

Cola.
Orangensaft.
Wasser.

Ich trinke nichts.

Ja, bitte?

Ein Brötchen, bitte.

Das macht fünfzig Cent.

Bitte.

Danke.

Snacks at break

What do you eat at break?

I eat ...

an apple.
an orange.
a banana.
a roll.
cake.
chocolate.
biscuits.
crisps.
sweets.

I don't eat anything.

What do you drink at break?

I drink ...

cola.
orange juice.
water.

I don't drink anything.

Can I help you?

A roll, please.

That's fifty cents.

Here you are. / You're
welcome.

Thanks.

Half-term 4 : Was isst du in der Pause ? Was trägst du zur Schule ?

Die Schuluniform

School uniform

der Pullover
der Rock
die Bluse
die Hose
die Jacke
die Krawatte
das Hemd
das Kleid
das Sweatshirt
das T-Shirt
die Jeans
die Schuhe
die Socken
die Sportschuhe
die Stiefel

jumper
skirt
blouse
trousers
blazer, jacket
tie
shirt
dress
sweatshirt
T-shirt
jeans
shoes
socks
trainers
boots

Was trägst du in der Schule?

What do you wear to school?

Ich trage ...

I wear ...

einen Rock.
einen Pullover.
eine Hose.
eine Jacke.
eine Krawatte.
ein Hemd.
ein T-Shirt.
ein Kleid.
ein Sweatshirt.
Jeans.
Socken.
Schuhe.
Stiefel.
Sportschuhe.

a skirt.
a jumper.
trousers.
a blazer / jacket.
a tie.
a shirt.
a T-shirt.
a dress.
a sweatshirt.
jeans.
socks.
shoes.
boots.
trainers.

Ich trage

einen **blauen** Rock
eine **blaue** Hose
ein **weißes** Hemd
schwarze Schuhe

I wear a blue skirt
blue trousers
a white shirt
black shoes

SPEAKING STRATEGIES : ROLE-PLAY & PHOTO CARD

KEY VERBS

Ich esse
Du isst
Er/ sie isst

Ich trinke
Du trinkst
Er/ sie trinkt

Ich trage
Du trägst
Er/ sie trägt

Ich finde das ...

I think it's ...

cool.
bequem.
schick.

cool.
comfy.
smart.

Ich habe keine Schuluniform.

I don't have a school uniform.

Im café

Was möchtest du?

Ich möchte....

Ja, bitte ?

Sonst noch etwas ?

Was kostet das ?

Das kostet..

In the cafe

What would you like ?

I would like ...

Yes, please ?

Anything else ?

How much is that ?

That costs...

Auf dem Foto

Was gibt es auf dem Foto ?

Auf dem Foto gibt es...

Es gibt...

Es gibt einen Junge

Es gibt ein Mädchen

In the photo

What is in the photo ?

In the photo there is/ are...

There is/ are...

There is a boy

There is a girl

Music: World Traditions

Djembe	The type of drum we are learning to play.
Call and echo	One person plays a rhythm, and others copy it back.
Call and re- sponse	One person plays a rhythm, others re- spond with a different rhythm.
Pulse	A steady beat.
Structure	The organisation/ layout/order of the piece of music.
Polyrhythms (poly = many)	Many rhythms played at the same time (at least 3).
Texture	How many different parts/layers are being played at once.
Master drummer	The leader of a group of drummers. The master drummer leads the call and response/echo.
Unison	Everyone plays the same thing at the same time.
Bass	Playing the djembe with the palm of the hand in the middle of the drum.



CONTEXT OF AFRICAN DRUMMING

- Traditionally from Sub-Saharan Africa (the part of Africa BELOW the Sahara Desert).
- Traditionally used to communicate over long distances.
- Used to mark important local events, e.g. welcoming visitors, celebrating marriages and birthday, and also played at funerals.
- Sometimes accompanied by singing.
- Learned through aural tradition—not written down, but passed down through generations

CONTEXT OF GAMELAN MUSIC

- Traditional music of the Indonesian islands of Java and Bali
- The word Gamelan refers to the ensemble itself
- Performers treat the instruments of the Gamelan with the upmost respect, removing shoes before playing and never stepping over the instruments
- The Gamelan is a combination of tuned and untuned percussion instruments made of wood and metal. Each village would have its own Gamelan tuned to its own pitch.

Musical skills you
will develop this
half term

Using tuned and
untuned percussion
using the correct
technique

Perform increasingly
complex rhythms
with a steady pulse.

Compose your own
rhythms and your
own structured
performance.

Be able to use
relevant musical

Vocabulary to
describe the music
you listen to and to
reflect on your own
and others'

Unit 4: Citizenship

Year 7

Skills

- Is reflective about the knowledge and skills needed for setting realistic targets and personal goals.
- Engage with and reflect on different ideas, opinions and beliefs to help develop personal opinion.
- Can express and explain opinions through discussion and written assessments.

Knowledge

- Understand what it means to be a citizen
- Understand what actions you can take to become an active citizen
- Distinguish between rights and responsibilities
- Gain an understanding of human rights
- Understand actions that individuals, groups and organisations can take to influence decisions affecting communities and the environment
- Explain what is a democracy
- Understand how the government and parliament is structured
- Describe the role of an MP
- Understand that I can make a change to local issues by taking action



Unit 3: First Aid

Year 7

Skills

- Has a basic knowledge of First aid and can recognise and reduce risk, minimising harm and getting help in emergency and risky situations
- Work individually and with others to negotiate, plan and take action.
- Analyse and reflect upon action taken and progress made.

Knowledge

Develop an understanding of emergency procedures: DRABC, emergency phone calls

Develop an understanding of emergency procedures: the recovery position

Develop knowledge and understanding of emergency procedures to aid choking and asthma attacks

Know how to treat a casualty with severe bleeding; Recognise the signs/symptoms of shock

Recognise and be able to treat a burn/scald/fracture

Develop our knowledge and understanding about heart attacks; the signs and symptoms and how to prevent them

Develop knowledge and understanding of how to perform mouth to mouth breathing and CPR



Elements and compounds

Properties of metals

Metals are good conductors of heat and electricity, have a high density, melting and boiling points. They are sonorous, malleable and ductile.

Atoms, Molecules, Elements, compounds and mixtures

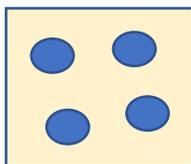
An **atom** is the smallest particle of a chemical element that can exist.

Molecules form when two or more atoms form chemical bonds with each other.

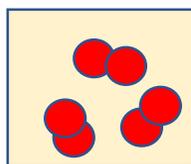
An **element** is a substance that contains only one type of atom.

A **compound** is a substance containing two or more elements chemically bonded together.

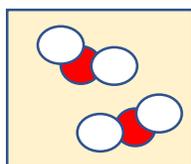
A **mixture** is a substance containing two or more elements/compounds, not chemically bonded.



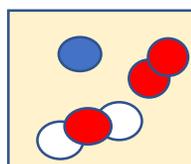
Atoms of one type of element.



Molecules of one type of element.



Molecules of one type of compound.

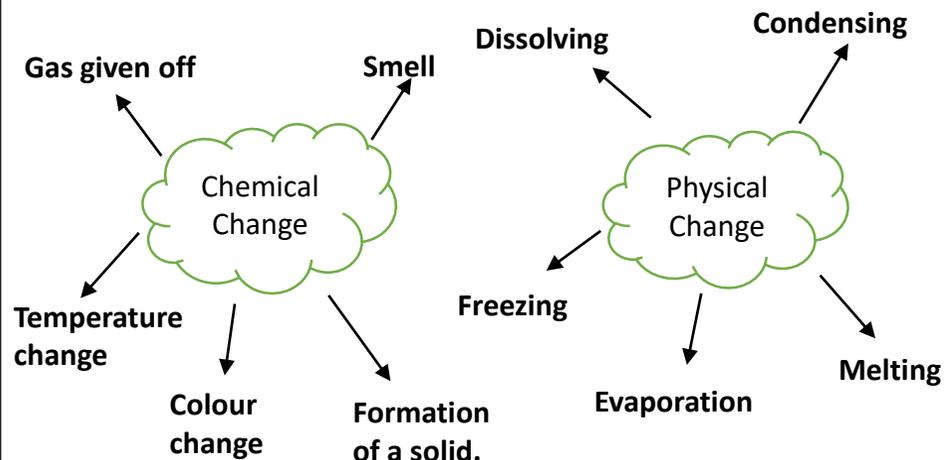


A mixture of elements and compounds.

Chemical and physical changes

Chemical changes occur when elements and compounds combine to form a new substance. The change is permanent.

Physical changes occur without forming new substances. These are not permanent and are reversible.



Elements and the periodic table

Dmitri Mendeleev created first version of the modern periodic table.

Elements are arranged into periods (horizontal) and groups (vertical) on the periodic table. Each element has a unique chemical symbol.

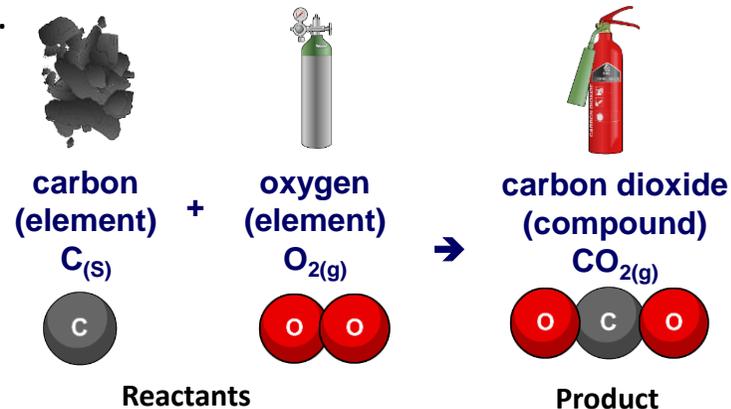
Elements are either metals or non-metals.

TRENDS can be found in properties along periods and down groups.

										Non-Metals																			
										Metals																			
										H hydrogen																			
Li lithium	Be beryllium											B boron	C carbon	N nitrogen	O oxygen	F fluorine	Ne neon												
Na sodium	Mg magnesium											Al aluminum	Si silicon	P phosphorus	S sulfur	Cl chlorine	Ar argon												
K potassium	Ca calcium	Sc scandium	Ti titanium	V vanadium	Cr chromium	Mn manganese	Fe iron	Co cobalt	Ni nickel	Cu copper	Zn zinc	Ga gallium	Ge germanium	As arsenic	Se selenium	Br bromine	Kr krypton												
Rb rubidium	Sr strontium	Y yttrium	Zr zirconium	Nb niobium	Mo molybdenum	Tc technetium	Ru ruthenium	Rh rhodium	Pd palladium	Ag silver	Cd cadmium	In indium	Sn tin	Sb antimony	Te tellurium	I iodine	Xe xenon												

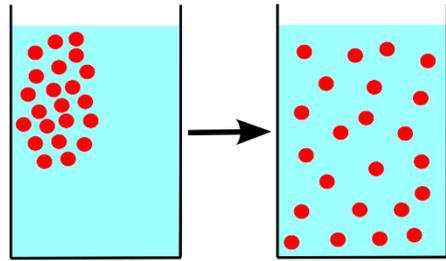
Properties of compounds

Compounds have very different properties to the elements from which they are made. This is because the atoms are joined together differently.

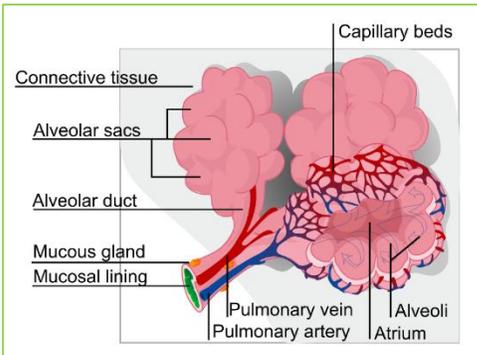
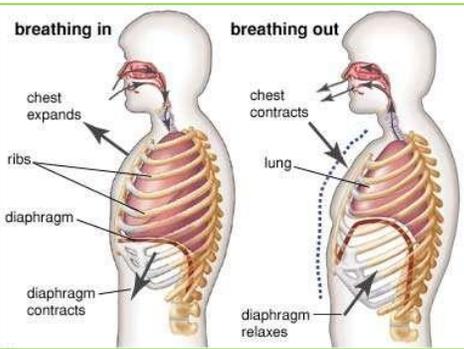


Rusting is a type of chemical reaction when oxygen reacts with iron

Year 7 Knowledge Organiser : Exchange and Transport in Animals



Diffusion is the movement of particles **from a high concentration to a low concentration**.

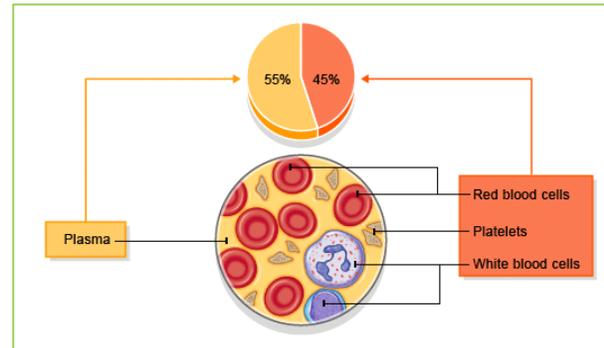
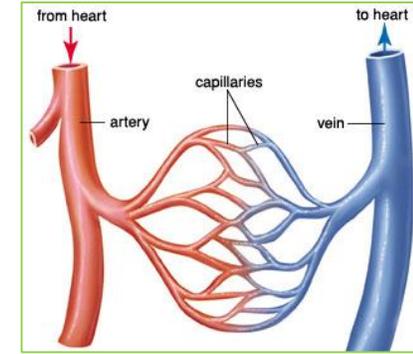


Respiration is a reaction that happens in our cells that **releases energy** so that normal activities can happen.

There are **two** types of respiration that occur in humans:

- Aerobic** respiration happens when there's lots of oxygen.
GLUCOSE + OXYGEN → CARBON DIOXIDE + WATER
- Anaerobic** respiration happens when our muscles don't get enough oxygen during exercise.
GLUCOSE → LACTIC ACID

Name of blood vessel	Job	How is it specialised?
Artery	Transport blood away from the heart at high pressure	Thick walls to prevent it from bursting
Vein	Transport blood back to the heart at low pressure	They have valves to stop the blood flowing backwards
Capillary	Exchange of materials between the blood and body cells	Walls are thin and one cell thick so diffusion is easier



Red blood cells carry **oxygen** around the body

White blood cells destroy disease-causing microbes, like bacteria.

Plasma carries **dissolved substance**, such as **glucose**, around the body.

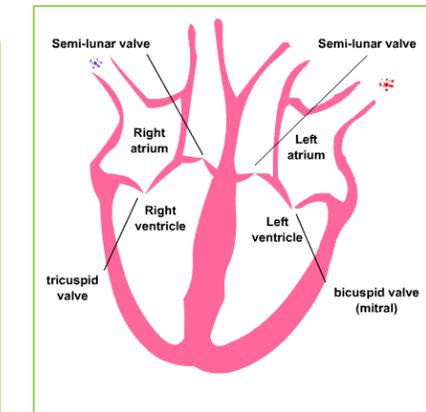
Platelets help to **clot the blood** and stop us from **bleeding** when our skin is cut.

The **heart** pumps blood around the body.

The muscles in the wall of the heart **contract** to put **pressure** on the blood, which forces it out of the different **chambers** – the **atria** and the **ventricles**.

The right side of the heart **pumps deoxygenated blood** to the **lungs**.

The left side of the heart **pumps oxygenated blood** to **all parts of the body**.



Alveoli are specialised for gas exchange in the following ways:

- they have a **large surface area**
- their walls are **very thin**
- they have **many capillaries carrying blood** covering them

Waves transfer energy from one place to another.
 Waves are made by forcing something to vibrate or oscillate.
 There are two types of waves; transverse and longitudinal.
 Sound waves are longitudinal waves.
 Light and waves on water are transverse waves.

Knowledge organiser-P2- Waves

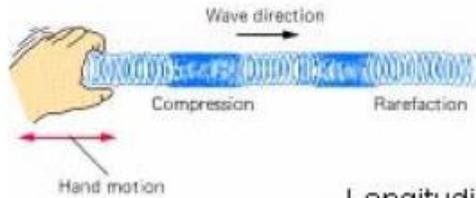
Comparing Light and Sound waves

Similarities	Differences
<ul style="list-style-type: none"> Both transfer energy Both have a range of frequencies and wavelengths 	<ul style="list-style-type: none"> Travel as different type of wave Sound waves need particles to carry energy but light waves do not Different speeds – light travels up to a million times faster than sound

The law of reflection states that for a plane (flat) mirror the angle of reflection will be the same as the angle of incidence. You need to make sure your diagrams show this.

When an object or substance vibrates, it produces sound. These sound waves can only travel through a solid, liquid or gas. They cannot travel through empty space. Sound waves are longitudinal waves - the vibrations are in the same direction as the direction of travel. The diagram below shows this.

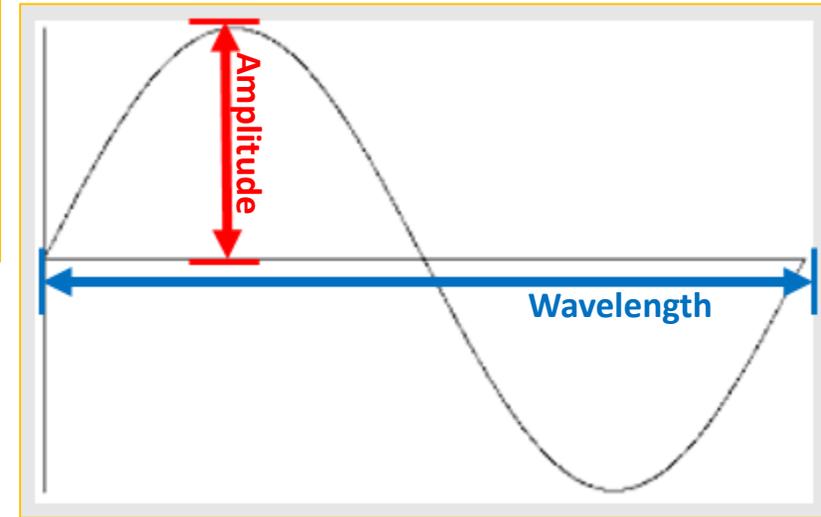
$$v = \frac{x}{t}$$



Longitudinal Waves

Time period - time needed for one complete cycle of vibration to pass a point.

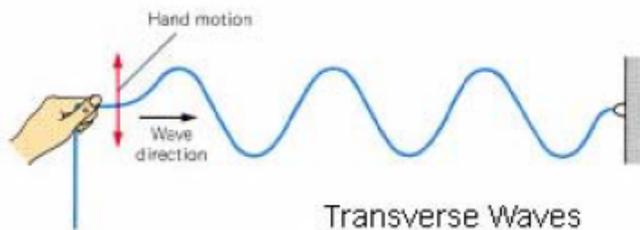
Frequency - number of waves produced by a source each second



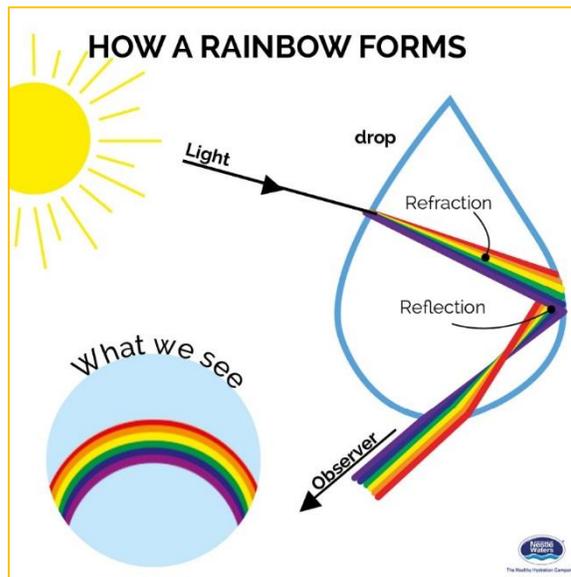
$$v = f \times \lambda$$

If you throw a pebble into a pond, ripples spread out from where it went in. These ripples are waves travelling through the water. The waves move with a transverse motion. The undulations (up and down movement) are at 90° to the direction of travel.

For example, if you stand still in the sea, the water rises and falls as the waves move past you. The diagram below shows a transverse wave.



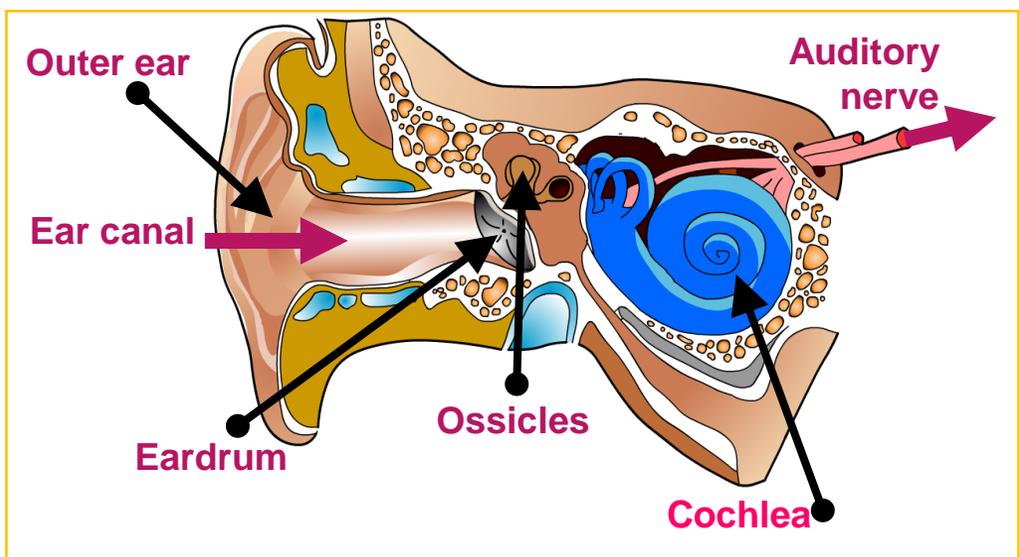
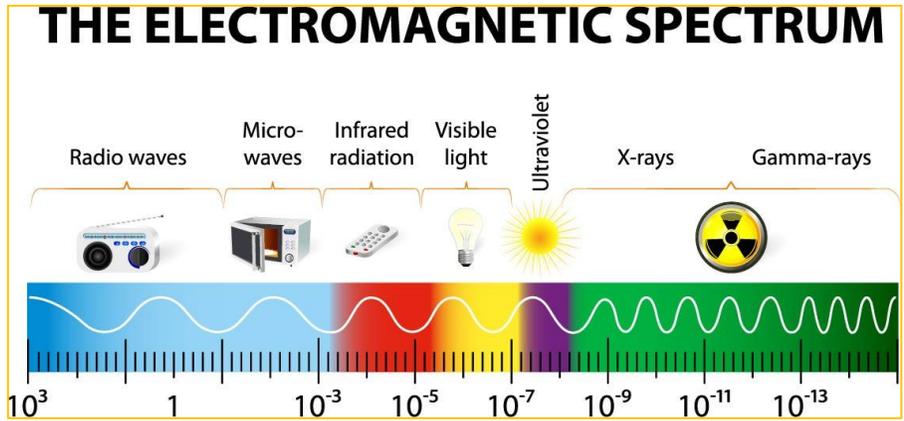
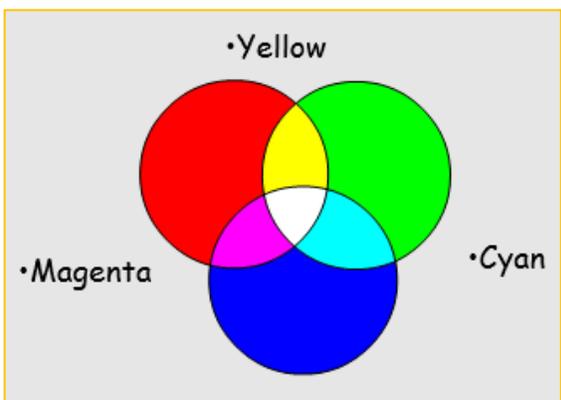
Transverse Waves



Red
 Orange
 Yellow
 Green
 Blue
 Indigo
 Violet

Mechanical waves- needs a substance for the wave to transfer energy e.g. Sound waves

Non-mechanical waves- does not need a substance for the wave to transfer energy e.g. Light waves



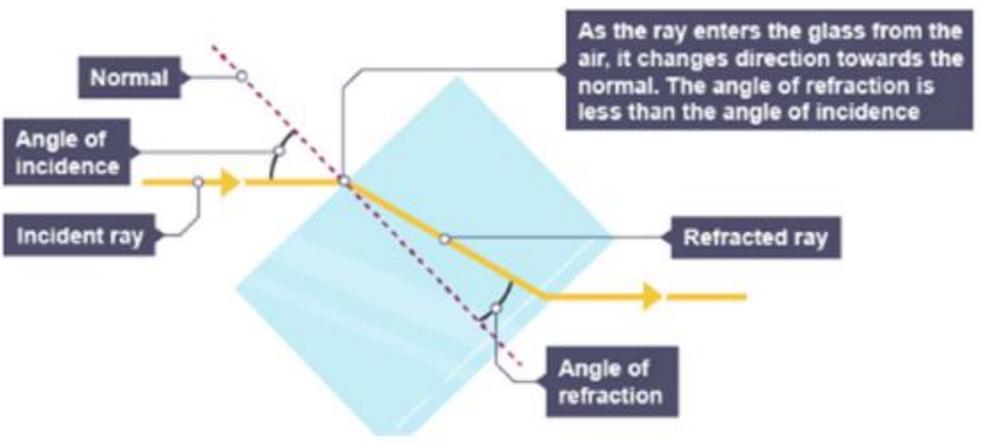
Refraction

Light waves change speed when they pass across the boundary between two substances with a different density, such as air and glass. This causes them to change direction, an effect called refraction.

At the boundary between two transparent substances:

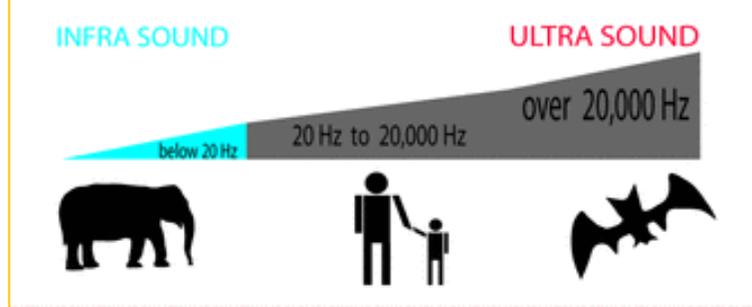
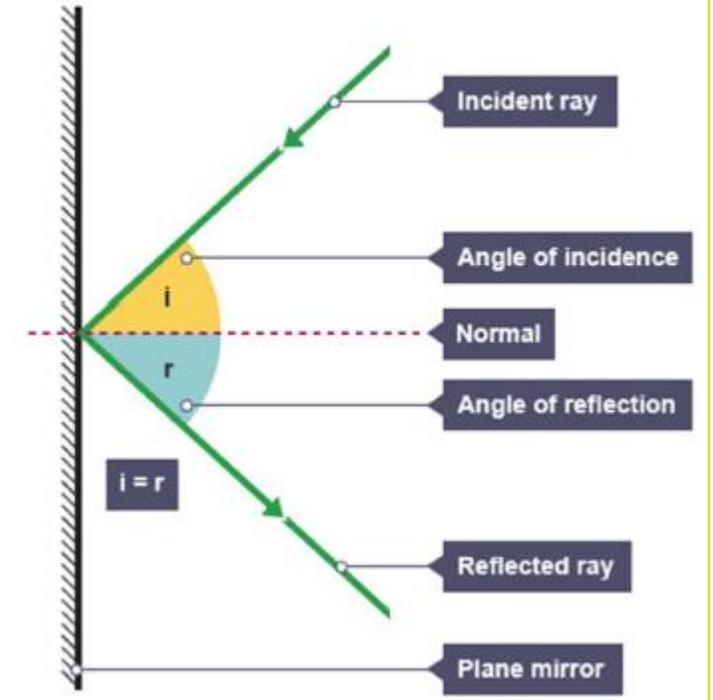
- the light slows down going into a denser substance, and the ray bends towards the normal
- the light speeds up going into a less dense substance, and the ray bends away from the normal

The diagram shows how this works for light passing into, and then out of, a glass block. The same would happen for a Perspex block:



Frequency = Pitch
Amplitude = Loudness

- the incident ray is the light going towards the mirror
- the reflected ray is the light coming away from the mirror



- TIP**
When drawing light ray diagrams make sure you always:
- Use a pencil and a ruler
 - Draw the initial lines faintly so you can erase them
 - Always add an arrow to show the direction of the light ray
 - Real light rays are a solid line and virtual light rays are dashed lines