Hartshill Academy
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Year 9

End of Year Assessments

Wednesday 3rd June to Wednesday 17th June

Heart - Ambition - Respect - Tenacity

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Year 9

English

Heart - Ambition - Respect - Tenacity

Year 9 English End of Year Exam

Reading Paper – 45mins

- You will need to write about Dulce Et Decorum Est, Who's For the Game or The Soldier.
- You will need to remember the big ideas, key messages and quotations for the poems.
- You will need to respond to one question out of a choice of two in a full essay response.

Writing Paper – 45mins

- You will need to write from a viewpoint.
- You will be asked to plan and write either a newspaper article, letter or speech.
- You will need to respond to one question out of a choice of two in a full length response.

Reading revision:

Dulce et Decorum Est
Wilfred Owen

Key Message
The poem shows that war is cruel, unjust, and not glorious. Owen criticises the idea that it is honourable to die for one's country, calling it "the old Lie".

Title & Irony
"Dulce et decorum est pro patria mori" means "It is sweet and fitting to die for one's country". Owen uses this phrase ironically to challenge patriotic beliefs.

Poem Summary
The poem describes exhausted soldiers, a sudden gas attack, and the painful death of a soldier. Owen shows the physical and psychological suffering of war.

Context
Wilfred Owen fought in World War One and suffered shell shock. He wrote poetry to show the reality of war and challenge propaganda.

Language & Imagery
Owen uses similes such as "like old beggars" and violent imagery like "guttering, choking, drowning" to present war as horrific.

Key Quotations with Analysis
"Bent double, like old beggars under sacks"

The simile compares soldiers to beggars, suggesting weakness, poverty and loss of dignity. This challenges the idea that soldiers are strong and heroic.

"Coughing like hags"

This simile makes the soldiers seem old and sick, showing how war has physically destroyed them and aged them before their time.

"Gas! GAS! Quick, boys!"

The repetition and exclamations create panic and urgency, showing the sudden terror of the gas attack.

"He plunges at me, guttering, choking, drowning"

The violent verbs emphasise the soldier's suffering and slow, painful death, forcing the reader to confront the horrors of war.

"The old Lie: Dulce et decorum est pro patria mori"

By calling this belief a lie, Owen directly criticises patriotic propaganda and rejects the glorification of war.

The Soldier
Rupert Brooke

Key Message
The poem presents war as noble and honourable. Brooke suggests that dying for England is meaningful and beautiful, and that England is worth dying for.

Poet & Context
Rupert Brooke wrote the poem at the beginning of World War One. He did not experience trench warfare, which explains the idealised and patriotic tone of the poem.

Title
The title focuses on an individual soldier, making the poem personal and respectful. It suggests pride rather than suffering.

Poem Summary
The speaker imagines his own death and suggests that if he dies abroad, the land will become forever connected to England. Death is presented as peaceful and meaningful.

Language & Imagery
Brooke uses religious and peaceful imagery to make death seem calm and pure. England is personified as a caring mother figure.

Attitude to War

The poem strongly supports patriotism and presents war as honourable, ignoring the violence and suffering of conflict.

Key Quotations with Analysis

"If I should die, think only this of me"

The opening is calm and reflective, showing acceptance of death rather than fear.

"That there's some corner of a foreign field / That is for ever England"

This suggests that the soldier's death spreads England's influence and makes the sacrifice seem worthwhile.

"A dust whom England bore, shaped, made aware"

England is personified as a mother, suggesting the soldier owes his life and death to his country.

"Her sights and sounds; dreams happy as her day"

Positive imagery creates a peaceful and nostalgic view of England, reinforcing patriotic feelings.

"In hearts at peace, under an English heaven"

Religious language presents death as calm and rewarding, making war seem less frightening.

Who's For the Game?

Jessie Pope

Key Message

The poem presents war as exciting and heroic in order to encourage young men to join up. However, this message is ironic because it ignores the reality of war.

Poet & Context

Jessie Pope wrote patriotic poetry during the First World War. Her poems supported recruitment and reflected the attitudes of people who believed war was glorious and noble.

Title & Tone

The title uses a rhetorical question to make war seem like a game or sport. The tone is enthusiastic and persuasive.

Poem Summary

The speaker encourages men to see war as fun and honourable. She suggests that those who do not fight will miss out and feel ashamed.

Language & Imagery

Sporting metaphors and rhetorical questions are used to make war seem exciting and pressure men into joining.

Attitude to War

The poem glorifies war and supports propaganda, presenting fighting as a duty and an adventure rather than something dangerous.

Key Quotations with Analysis

"Who's for the game, the red crash-hot?"

The rhetorical question immediately addresses the reader and compares war to a game, making it sound exciting and appealing.

"Who'll grip and tackle the job unafraid?"

Sporting language presents war as a test of bravery and strength, putting pressure on men to prove themselves.

"Who'd rather come back with a crutch"

This line suggests injury is preferable to not fighting, showing how the poem ignores the real suffering of war.

"Who wants to save his skin, and get left behind?"

The phrase shames men who do not fight by suggesting they are cowardly and selfish.

"Who knows it won't be a picnic — not much—"

This understatement downplays the dangers of war, making the damage seem minor.

Experts to Quote

Don't just take my word for it; at a recent press conference, _____ stated that '_____'

This clearly reinforces my point as _____

Studies suggest_____

Recent research indicates_____

Instead of 'important', say:

Crucial
Essential
Vital
Significant
Urgent
Critical
Momentous

Instead of 'good', say:

Crucial
Essential
Vital
Significant
Urgent
Critical
Momentous

Techniques to use

Ethos
Logos
Pathos

Direct Address
Alliteration
Anecdote
Facts
Opinions
Rhetorical question
Repetition
Emotive Language
Exaggeration
Statistics
Triple

Structure for writing (and steps to plan)

1) Headline/address/opening statement. Break down the issue, what does it mean? What is the issue? Include imperatives.
2) Personal opinion – what do you think about the issue? Give an anecdote that explains your personal opinion.
3) The bigger picture - what is the wider community's view on the problem, society's view, the global situation? Include facts and statistics.
4) Blame and solutions – how do we change the situation? Include authority and expert opinions.
5) Powerful ending – link back to the start and end with an imperative.

Rhetorical Questions

How much longer can we sit back and ignore this issue?

Ask yourself this – how would you feel?

Do you want your children to grow up in a world where this continues to happen?

Have we not tolerated this for long enough?

If not you, then who? If not now, then when?

Are you ready to change the world?

Instead of 'bad', say:

Disastrous
Dire
Unacceptable
Inadequate
Harmful
Invalid
Shocking

Imperative Phrases

Action must be taken
It is undeniably time for a change
We can no longer ignore this issue
Stand up and make your voice heard
Don't tolerate this any longer
Let's put a stop to this issue, once and for all
It is time to pay attention

Paragraph sentence starters for cohesion

Despite the advantages, it is clear that _____
This leads me on to _____
As previously touched upon, _____
Whilst I do accept that _____
Ultimately, a balance is needed between _____

Writing structure:

Headline/address/opening statement. **Break down the issue, what does it mean? What is the issue? Include imperatives.**	
1st Point – your personal opinion **What do you think about the issue?** **Give an anecdote that explains your personal opinion.**	
2nd point – the bigger picture **What is the wider community's view on the problem, society's view, the global situation? Include facts and statistics.**	
3rd point – blame and solutions **How do we change the situation? Include**	

authority and expert opinions.	
Powerful ending – link back to the start and end with an imperative.	

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Year 9

Maths

Heart - Ambition - Respect - Tenacity

9.08 Standard Form

1) Rule	Numbers written in standard form are always written in the form $a \times 10^n$, where $0<a<10$	**2) Powers of 10**	$10^1 = 10$ $10^2 = 100$ $10^3 = 1000$ $10^3 = 10\,000$ $10^4 = 100\,000$ etc.	$10^{-1} = \frac{1}{10} = 0.1$ $10^{-4} = \frac{1}{10000} = 0.0001$ $10^{-2} = \frac{1}{100} = 0.01$ etc $10^{-3} = \frac{1}{1000} = 0.001$
3) Ordinary to Standard Form	$340000 = 3.4 \times 10^5$ $0.00903 = 9.03 \times 10^{-3}$	**4) Standard Form to Ordinary**	$1.09 \times 10^3 = 1090$ $8.77 \times 10^{-6} = 0.00000877$	

KPI 9.09 Expanding and Factorising 2

1) Expand	Multiply out the bracket(s) in the expression. E.g. $3(5x + 7) = 15x + 21$	**2) Factorise**	Identify the HCF and rewrite the expression with brackets. E.g. $6x^2 + 9x = 3x(2x+3)$.
3) Expanding double brackets	Writing two brackets next to each other means the brackets need to be multiplied together. $(x + 1)(x + 2) = (x + 1) \times (x + 2) = x^2 + 3x + 2$ Note: $(x + a)^2 = (x + a)(x + a)$		
4) Factorising quadratics	To factorise a quadratic, put it back into a pair of brackets. To find the terms that go in each bracket, look for a pair of numbers which multiply to give the constant and add together to give the coefficient of x		
5) Difference of two squares (DOTS)	$a^2 - b^2 = (a+b)(a-b)$	E.g. $x^2 - 16 = (x + 4)(x - 4)$	

x	x	+1
x	x^2	$+x$
+2	$+2x$	+2

KPI 9.10 Forming Expressions and Substitution

1) Substitution	Replace a variable with a given value.	**2) Function machine**	Shows the relationship between two variables, the input and the output.
3) Formula	A mathematical relationship or rule expressed in symbols.		
4) Expression	A mathematical statement which contains one or more terms combined with addition and/or subtraction signs.		

KPI 9.11 Direct and inverse proportion

1) Direct proportion	A relationship between two variables where, as one increases, the other also increases.	**3) Unitary method**	To find the value of one unit first.
2) Inverse Proportion	A relationship between two variables where, as one increases, the other decreases.	**4) Exchange rate**	Tells us how much of one currency you can exchange for another currency e.g. £1 = $1.39

KPI 9.12 Probability 1

1) Probability

How likely something is going to happen.

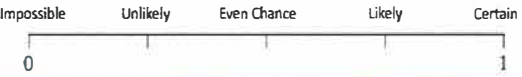
All probabilities must be given as a fraction, decimal or a percentage (NOT a ratio).

2) Probability scale words

Impossible, Unlikely, Even chance, Likely, Certain

3) Probability scale

All probabilities exist between 0 and 1.
Impossible = 0, Even chance = ½ and certain = 1



4) Systematic listing

The outcomes for an event can be listed in an organised or systematic way to make sure that none of the possible outcomes are missed out.

5) Single event probability

The sum of the probabilities of a set of outcomes must equal one.

6) Probability notation

In probability we use the notation P(___) to represent the probability of something happening.

7) Probability of an event happening

$$P(of\ an\ outcome\ happening) = \frac{number\ of\ the\ desired\ outcome}{total\ number\ of\ outcomes\ of\ the\ event}$$

8) Mutually exclusive

Are events that cannot happen at the same time.

9) Expected outcomes

You need to multiply the probability by the total number of trials.

10) Frequency trees

Is used to record and organise information given as frequencies.

This can then be used to calculate probabilities.

11) Sample space

Listing all of the possible outcomes from two events in a table.

E.g. Displaying all of the scores for the sum of two spinners. Spinner A (1,2,3,4) and Spinner B (2,3,4)

+		Spinner A			
		1	2	3	4
Spinner B	2	3	4	5	6
	3	4	5	6	7
	4	5	6	7	8

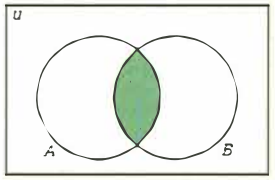
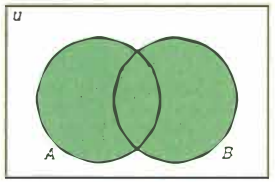
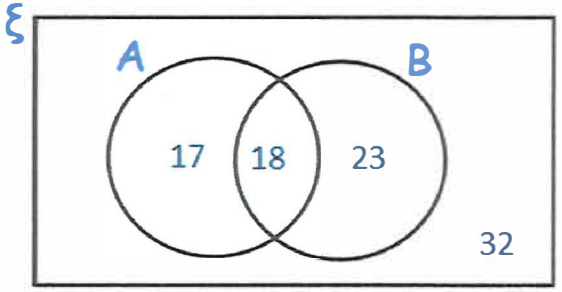
12) Relative frequency

Relative frequency is used when probability is being estimated using the outcomes of an experiment or trial, when theoretical probability cannot be used.

Relative frequency or experimental probability is calculated from the number of times an event happens, divided by the total number of trials in an actual experiment.

$$Relative\ Frequency = \frac{No.\ of\ Successful\ Outcomes}{No.\ of\ Trials}$$

KPI 9.12 Probability 1

13) Venn Diagrams	A Venn diagram shows the relationship between groups of different outcomes.	**14) Element**	A list of numbers, objects or outcomes.
15) Universal set	Contains all of the elements for our question	**16) Set Notation**	**A** – all elements in A **A'** – all elements NOT in A **B** – all elements in B **B'** – all elements NOT in B
17) Intersection	**A∩B** – all the elements in both A and B 	**18) Union**	**A∪B** – all the elements in A or B or both 
19) Finding probabilities from a Venn diagram	Venn diagrams can be useful for organising information about frequencies and probabilities. We can then use them to solve conditional probability problems. E.g. The following Venn diagram shows information about the number of members of a local sport club who take part in the Archery and Badminton classes. A person is chosen at random. Find P(B only) $= \frac{18 + 23}{17 + 18 + 23 + 32} = \frac{41}{90}$		

KPI 9.13 Solving Equations 2

1) Solve	Use inverse operations to find the solution of an equation.	**2) Linear equation**	Contains an equals sign (=) and has one unknown. E.g. $5x - 2 = 2x + 7$
3) Equation	An equation is a statement with an equal sign, starting that two expressions are equal in value.		

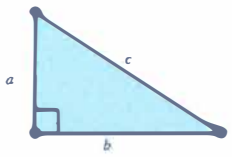
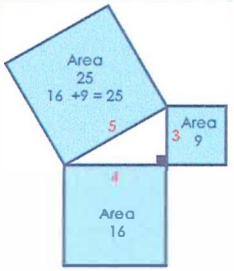
KPI 9.14 Inequalities 1

1) Representing an inequality on a number line– closed circle	A closed circle is used to show greater than or equal to (or less than or equal to) the number. $x \geq 3$ 	**2) Representing an inequality on a number line – open circle**	An open circle is used to show greater than (or less than) the number. $x > 3$ 
3) Reversing the inequality	Multiplying or dividing both sides by a negative number reverses the inequality	E.g. $-3x < 6$ $x > -2$	

KPI 9.15 Sequences

1) Sequence	A pattern of numbers which fit a certain rule.	**2) Term**	A number in a sequence.
3) Term to term rule	The rule for how to get from one number to the next number in the sequence.	**4) Position**	Where a term is in a sequence.
5) Position to term rule	The rule for how to work out a number in a sequence if you know its position.	**6) Nth term**	Used to find a term in a sequence given its position e.g. 5n + 3
7) Linear sequence	The terms increase or decrease by the same amount each time. Also known as an arithmetic sequence. Nth term is written in the form, an + b.	**9) Geometric sequence**	A geometric sequence goes from one term to the next by always multiplying or dividing by the same value.
10) Fibonacci sequence	The Fibonacci sequence is unique because the next term is found by adding up the two previous terms. 1, 1, 2, 3, 5, 8, 13, 21…		

KPI 9.16 Pythagoras

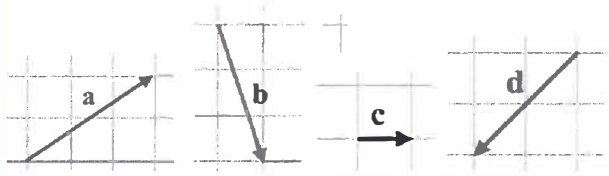
1) Right-angled triangle	A triangle that contains a right-angle (90 degrees).	**2) Hypotenuse**	The longest side – opposite the right-angle.
3) Pythagoras' Theorem	For any right-angled triangle, the area of the square of the longer length (the hypotenuse) is equal to the area of the squares of the shorter lengths added together.  $c^2 = a^2 + b^2$ $a^2 = c^2 - b^2$ $b^2 = c^2 - a^2$		

KPI 9.17 Interior and Exterior Angles			
1) Polygon	A polygon is a two-dimensional shape with 3 or more straight sides. A polygon is either regular or irregular: Regular – side lengths are equal, and all angles are equal. Irregular – side lengths are unequal, and angles are unequal.		
2) 3 sides	Triangle	**3) 4 sides**	Quadrilateral
4) 5 sides	Pentagon	**5) 6 sides**	Hexagon
6) 7 sides	Heptagon	**7) 8 sides**	Octagon
8) 9 sides	Nonagon	**9) 10 sides**	Decagon
10) 11 sides	Hendecagon	**11) 12 sides**	Dodecagon
12) Exterior Angles	Exterior angles of polygons sum to 360°. An exterior angle of a regular polygon is found by calculating $\frac{360}{n}$ n is the number of sides.	**13) Interior Angles**	In a regular polygon. Interior Angle + Exterior Angle = 180°
14) Tessellation	A pattern created with identical shapes that fit together with no gaps.		

KPI 9.18 Vectors 1

1) Vector

Vectors represent movement of a certain size in a certain direction, they are represented on a diagram with an arrow.



2) Magnitude

Magnitude is defined as the length of a vector.

3) Scalar

A scalar is the number we multiply a vector by.

4) Column vector

$\begin{pmatrix} a \\ b \end{pmatrix}$

a: movement along the x-axis (left/right)
b: movement along the y-axis (up/down)

5) Adding and subtracting column vectors

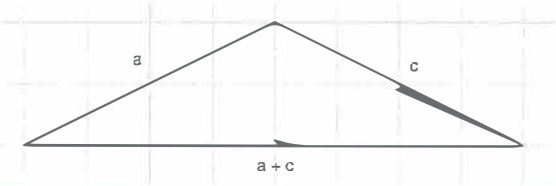
$$\begin{pmatrix} a \\ b \end{pmatrix} + \begin{pmatrix} c \\ d \end{pmatrix} = \begin{pmatrix} a+c \\ b+d \end{pmatrix}$$

6) Multiplying vectors

To multiply a column vector by a number, we multiply both values in the vector by that number.

7) Resultant vectors

The resultant vector is the vector that results from adding two or more vectors together.

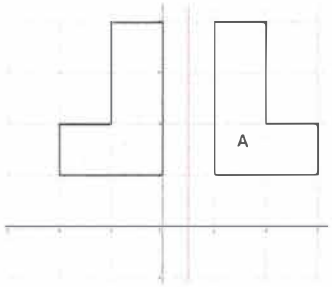
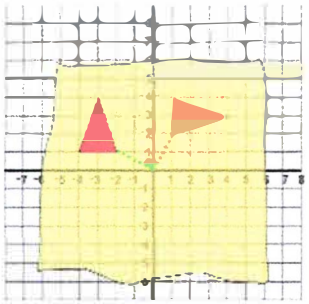
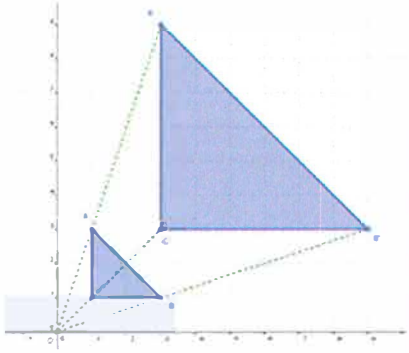
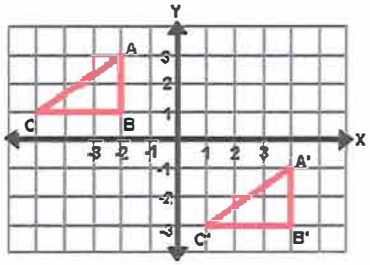


8) Parallel vectors

Travel in the same or opposite direction.
Can be of varying lengths.
Must be scalar multiples of one another.

The vectors $\begin{pmatrix} 8 \\ 12 \end{pmatrix}$ and $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$ are parallel because $\begin{pmatrix} 8 \\ 12 \end{pmatrix} = 4\begin{pmatrix} 2 \\ 3 \end{pmatrix}$

KPI 9.19 Transformations 1

1) Transformations	There are four types of transformations: Reflection Rotation Enlargement Translation	**2) Object**	This is the original shape used to perform the transformation on
3) Image	This is the new shape created as the result of the transformation.	**4) Congruent**	Two (or more) shapes that are the same size and the same shape.
5) Reflection	A shape is reflected in a line of symmetry. When a shape is reflected the image is always congruent to the object. The line of symmetry used must be given or found using an equation. An object and its image are always the same perpendicular distance from the line of symmetry. E.g. Reflect shape A in the line x=1 	**6) Rotation**	When rotating a shape we must have 3 pieces of information. Centre of rotation given as a coordinate (x,y) Angle of rotation (usually 90°,180°,270°) Direction (clockwise or anticlockwise) 
7) Enlargement	When enlarging a shape we must have two pieces of information. Centre of enlargement given as a coordinate (x,y) Scale factor 	**8) Translation**	A translation is a movement of an object When a shape in translated the image is congruent to the object. Translations are described using column vectors (a ¦ b) a: movement along the x-axis (left or right) b: movement along the y-axis (up or down) E.g. Translate the original triangle ABC by the vector (6 ¦ (– 4)) 

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Year 9

Science

Heart - Ambition - Respect - Tenacity

Science
1 of 11

9BP - Plants And Photosynthesis

1. Photosynthesis

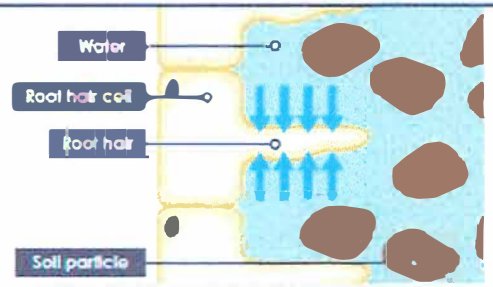
- Plants make their own food (for energy) in a process called **photosynthesis**.
- Photosynthesis helps keep:
  - Levels of oxygen high;
  - Levels of carbon dioxide low.

- Photosynthesis takes place in the **chloroplasts**.
- Chloroplasts contain **chlorophyll** which absorbs the energy transferred by light waves for photosynthesis.

The equation for photosynthesis is:
Carbon dioxide + water → glucose + oxygen

These are the things that plants need for photosynthesis:
- **Carbon dioxide** – absorbed through their leaves;
- **Water** - from the ground through their roots;
- **Light** (a source of energy) - from the Sun.

These are the things that plants make by photosynthesis:
- **Oxygen** - released into the air from the leaves;
- **Glucose**:
  - Turned into **starch** and plant oils, used as an energy store;
  - This energy is released by **respiration**;
  - Used to make **cellulose** for cell walls.



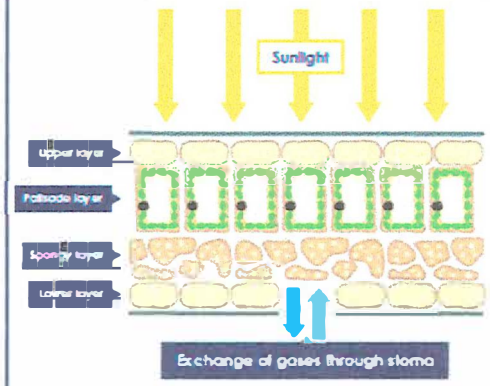
Water is absorbed from the soil by root hair cells

Water is absorbed into the roots by a process called **osmosis**, which does not use energy.
Minerals are absorbed into the roots by a process called **active transport**, which uses energy.

2. Leaves

Feature Of Plant Leaf	Function
Thin	Short distance for carbon dioxide to diffuse into the leaf
Waxy Layer	Prevents water loss by evaporation
Palisade Cells	Contain a lot of chloroplasts to absorb light
Chloroplasts Contain Chlorophyll	Absorbs light
Stomata	Allows carbon dioxide to diffuse into the leaf (and oxygen to diffuse out)
Guard Cells	Open/close stomata depending on conditions
Network Of Tubes (Xylem & Phloem)	Transports water (xylem) and food (phloem)

3. Cross-Section Of A Leaf



4. Water

- Water is absorbed through the roots, by **osmosis**;
- It is transported through tubes (**xylem**) to the leaf;
- The roots contain cells called **root hair cells**:
  - They increase the **surface area**.
  - They have **thin walls** to let water pass into them easily.
  - They **do not** contain chloroplasts.

5. Carbon Dioxide

- Enters leaf by **diffusion** through the **stomata**.
- **Guard cells** control the size of the stomata.
- Stomata closes in **hot**, **windy** or **dry** conditions.
- Spongy layer has gaps between cells:
  - Allows carbon dioxide to **diffuse** to other cells in the leaf;
  - Allows oxygen produced in photosynthesis diffuse out of the leaf.

6. Respiration v Photosynthesis

Photosynthesis:
Carbon dioxide + water → glucose + oxygen
Aerobic respiration is:
Glucose + oxygen → carbon dioxide + water
The equation for photosynthesis is the **opposite** of the equation for aerobic respiration.
- **Photosynthesis**:
  - **Produces** glucose and oxygen;
  - **Uses** carbon dioxide and water.
- **Respiration**:
  - **Produces** carbon dioxide and water;
  - **Uses** glucose and oxygen.

7. Food Security And Pollination

- **Pollination** is the transfer of pollen from one plant to another;
- Pollen can be transferred by **insects** or by **wind**;
- Insects that pollinate plants help us produce our food;
- Our food supply depends on plants:
  - Our food made of, and from plants;
  - The animals we eat feed on plants.

Science
2 of 11

9PM - Matter

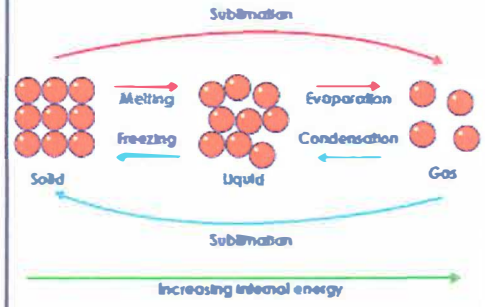
1. Change Of State

- Substances can change state, usually when they are heated or cooled;
- State changes are **reversible** – e.g. ice can be melted and then frozen again;
- No new elements or compounds are formed.

The closeness, arrangement and motion of the particles in a substance change when it changes state:

	Solid	Liquid	Gas
Closeness	All touching	Mostly touching	Far apart
Arrangement	Ordered	Random	Random
Motion	Vibrate, fixed position	Move freely	Move freely (faster than liquids)
Density	Decreasing density ——————>		
Internal Energy	Increasing internal energy ——————>		

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$



2. Pressure In Fluids

- A **fluid** is a liquid or gas;
- All fluids can change shape and flow from place to place;
- Fluids exert pressure at 90° to surfaces – we say that it acts normal to the surface.

4. Brownian Motion

- Gas particles move very quickly;
- Air particles move at 500 m/s on average at room temperature;
- Particles collide with each other very frequently;
- They change direction randomly when they collide;
- Their random motion because of collisions is called **Brownian motion**.

6. Diffusion

- Diffusion is the **movement of particles from an area of high concentration to an area of low concentration**;
- Diffusion does not happen in solids – only fluids (liquids and gases);
- Particles in a solid can only vibrate and cannot move from place to place;
- Diffusion is driven by differences in concentration;
- No diffusion will take place if there is no difference in concentration from one place to another;
- Diffusion in liquids is slower than diffusion in gases because the particles in a liquid move more slowly.

Explaining diffusion in a smelly gas

- When a perfume is released into in a room, the perfume particles mix with the particles of air;
- The particles of perfume are free to move quickly in all directions;
- They eventually spread through the whole room **from an area of high concentration to an area of low concentration**;
- This continues until the concentration of the perfume is the same throughout the room;
- The particles will still move, even when the perfume is evenly spread out.

Diffusion and temperature

Diffusion is faster if the fluid (gas or liquid) is hotter.

3. Atmospheric Pressure

The atmosphere exerts a pressure on you, and everything around you.

Atmospheric pressure changes with altitude. The higher you go:

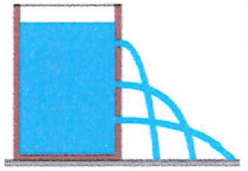
- The lower the weight of the air above you;
- The lower the atmospheric pressure.

5. Pressure In Liquids

Just like the atmosphere, liquids exert pressure on objects.

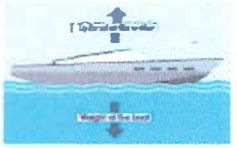
The pressure in liquids changes with depth. The deeper you go:

- The greater the weight of liquid above;
- The greater the liquid pressure;
- Pressure in a liquid increases with depth;
- Jet from the bottom of the bucket travels further.



7. Floating And Sinking

- Liquid pressure is exerted on surfaces of objects in liquids;
- This causes upthrust;
- When an object sinks, the pressure increases and so the upthrust increases;
- It will continue to sink if weight is greater than maximum upthrust;
- When and object floats, the upthrust is equal and opposite to the object's weight.



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9PF - Forces In Action

1. Hooke's Law

Hooke's Law says that **the extension of an elastic object is directly proportional to the force applied.** In other words:
- The extension doubles, if the force is doubled;
- There is no extension, if no force is applied.

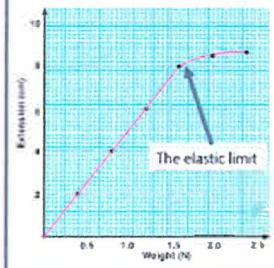
You can investigate Hooke's Law using a spring:
- Hang the spring from a stand and clamp;
- Measure its length with a ruler;
- Hang a mass from the spring and measure the new length of the spring;
- Work out: **extension = new length – original length;**
- Keep adding more masses, measuring the new length each time;
- Work out extension for each mass.

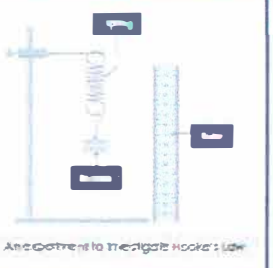
You can then plot a force-extension graph:
- Plot force on the vertical (y) axis;
- Plot extension on the horizontal (x) axis.

Force Applied (N) = Spring Constant (N/m) x Extension (m)

Using Hooke's Law

In a force-extension graph:
- The steeper the line, the stiffer the spring;
- The area under the line is the work done (energy needed) to stretch the spring.





Arrangement to investigate Hooke's Law

2. Moments

- A moment is a turning effect of a force.
- Forces can make objects turn if there is a pivot.
- When the turning forces are balanced - the moments are equal and opposite.

Calculating moments
To calculate a moment, you need to know:
- The distance of the force from the pivot;
- The size of the force.

Moment	=	Force	x	Perpendicular Distance
(Nm) (Ncm)		(N)		(m) (cm)

Force multipliers
- Increasing the distance will increase the moment for the same force;
- This is why a longer spanner will loosen a tight nut;
- And a crowbar or long lever can be used to lift heavy objects.

÷100
Centimetres - Metres
x100

÷1000
Metres - Kilometres
x1000

Work Done (J) = Force (N) x Distance (m)

4. Deformation

Elastic materials:
- **Change shape** when a force is exerted on them;
- **Return to their original shape/size** when the force is removed.

Deformation is a change in shape. There are two types of deformation:
- **Stretching** is when the object/material is pulled;
- **Compression** is when the object/material is squashed.

The greater the force exerted, the greater the amount of deformation. If the force is large enough, the object/material may no longer return to its original size. Until you reach this point, a special case called **Hooke's Law** applies.

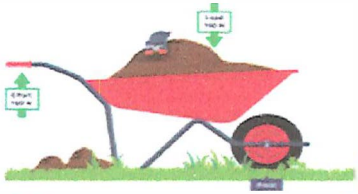
3. Simple Machines

Example of simple machines are **see-saws, wheelbarrows** and forceps. **Simple machines give a bigger force but with a smaller movement.**

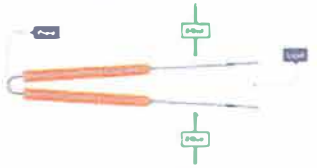
See-saw
A force is exerted in one place, causing movement and a force at another place in the see-saw. A see-saw will balance when:

Clockwise Moment = Anticlockwise Moment
Force (N) x Distance (cm) = Force (N) x Distance (cm)

Wheelbarrows
Wheelbarrows are a simple machine with the load near the pivot (the wheel) and the effort on the handles far from the pivot.



Forceps
With forceps, fingers provide the effort force, and this is nearer to the pivot than the load (the object you are picking up).



- Some machines give a smaller force but with a bigger movement.

This is the opposite to the see-saw and wheelbarrow, but again if you multiply the force by the distance travelled, you get the same value for the effort and for the load.

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9CR Reactivity

1. Word Equations To Symbol Equations

- Replace names of each substance symbols or formula:
- Use numbers to balance the equation:

Example:

copper + oxygen → copper oxide

$2Cu + O_2 \rightarrow 2CuO$

Two copper atoms (2Cu) react with one oxygen molecule (O_2) to produce two units of copper oxide (2CuO).

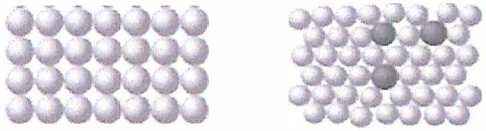
2. Typical Properties Of Metals

Appearance	Shiny
State At Room Temperature	Solid (except mercury, a liquid)
Density	High
Strength	Strong
Malleable Or Brittle	Malleable
Conduct Heat?	Good
Conduct Electricity?	Good
Magnetic Material	Only iron, cobalt & nickel
Sound When Hit	Make a ringing sound (sonorous)

3. Pure Metals V Alloy

The rows of atoms in a pure metal can slide over each other easily.
In an alloy, the different sized atoms disrupt the layers so the atoms can't slide.
This makes alloys more useful than pure metals.

Pure metal **Alloy**



4. Bases V Alkalis

A **base** is a substance that can react with acids and **neutralise** them. Many bases are insoluble in water. If a base does dissolve in water it is called an **alkali.**

Bases are usually:
- **Metal oxides**, such as copper oxide
- **Metal hydroxides**, such as sodium hydroxide, or **metal carbonates**, such as calcium carbonate

General word equations for neutralisation reactions:

Metal oxide + acid → salt + water
Metal hydroxide + acid → salt + water
Metal carbonate + acid → salt + carbon dioxide + water

The lab test for carbon dioxide
Bubble the gas through lime water and watch for it to turn from colourless to a cloudy milky colour.

5. Acids And Metals

Acids react with most metals to produce a salt and hydrogen. This is the general word equation :

metal + acid → salt + hydrogen

The lab test for hydrogen
Place **lighted splint** in the test tube and listen for the gas to burn with a squeaky pop.

6. Naming Salts

Hydrochloric acid → metal **chlorides**
Sulfuric acid → metal **sulfates**
Nitric acid → metal **nitrates**

7. Calculating Relative Formula Mass

Formula mass is calculated by adding together the mass number of each atom in a compound's chemical formula.

E.g. $MgCl_2$ **Ar Mg = 24** **Ar Cl = 35.5**

Formula mass = 24 + (2 x 35.5) = 95

There are 2 chlorines in the chemical formula

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9CR Reactivity

8. Reactivity Series

The reactivity series is a list of elements in order of their reactivity:

Potassium
Sodium
Calcium
Magnesium
Aluminium
Carbon
Zinc
Iron
Tin
Lead
Hydrogen
Copper
Silver
Gold
Platinum

Most reactive

Least reactive

If a metal loses its outer electrons more easily, it will be more reactive.

9. Extracting Copper From Copper Oxide

Copper is so unreactive, it does not react with cold or hot water, so it is used for water pipes.

To extract copper:

- Mix **copper oxide** powder with **carbon powder**;
- Heat the mixture strongly in a **crucible**;
- Keep the lid on the crucible, to stop carbon reacting with oxygen in the air;
- The **carbon dioxide** formed in the reaction escapes into the air;
- Let the crucible cool down, you tip the mixture into cold water;
- Brown copper sinks to the bottom, leaving unreacted powder suspended in the water.

These equations represent the reaction:

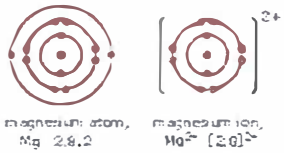
Copper oxide + carbon → copper + carbon dioxide

$$2CuO + C \rightarrow 2Cu + CO_2$$

10. Why Do Metals React?

Metals react because they want to gain a full outer shell and become stable. They do this by **losing their outer electron(s)** to become **positively charged ions**

For example:
Magnesium loses its 2 outer electrons to become a +2 ion



Why do non-metals react?
Non-metals react because they want to gain a full outer shell and become stable. They do this by gaining electrons into their outer shell to become negatively charged ion.

For example:
Oxygen gains 2 electrons into its outer shell to become a -2 ion

11. Displacement Reactions

This is when a more reactive metal **displaces** a less reactive metal from its compound.

For example:

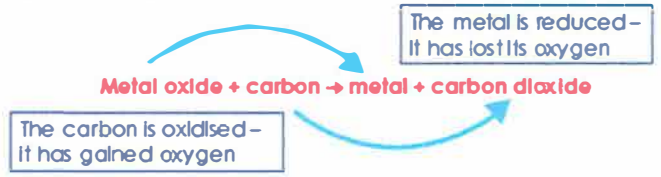
Magnesium + copper sulfate → magnesium sulfate + copper

If the more reactive metal is already in the metal compound, nothing happens. For example:

Magnesium sulfate + copper → no reaction

12. Carbon And Metal Extraction

Some metals can be extracted from their metal oxides using carbon if the metal is less reactive than carbon.



This works for zinc, iron, tin, lead and copper because they are all less reactive than carbon.

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9CE - Energetics And Rates

1. Rate Of Reaction

Reacting particles must **collide** with a minimum amount of energy **(activation energy)** for a chemical reaction to happen.

How quickly a reaction happens is called the **rate of reaction**, and always involves a **time measurement.**

We can **increase reaction rate** by:

1. **increasing the concentration of liquid reactants** as it **increases the frequency of collisions;**
2. **increasing the surface area of solid reactants** as it **increases the frequency of collisions;**
3. Using a **catalyst** as it **decreases the energy that particles need to collide with for a successful reaction.**

2. Some Ways To Measure The Rate Of A Reaction

- Time taken for a reactant to disappear;
- Time taken for the reaction mixture to change colour;
- Measure the number of bubbles produced in a certain time;
- Measure the volume of gas produced in a certain time;
- Measure the change in mass in a certain time.

3. Exothermic And Endothermic Reactions

- **Exothermic** reaction - **releases** energy to the surroundings;
- Causes a **rise** in temperature (**positive** temperature change);
- **Endothermic** reaction - **take in** energy from the surroundings;
- Causes a **drop** in temperature (**negative** temperature change).

4. Catalysts

- Speed up reactions;
- Are not used up during reactions;
- Are chemically unchanged after the reaction completes;
- Work by reducing the energy needed to start a reaction (**activation energy**).

In industry, using catalysts often results in **lower** temperature being used in industry, **saving money** and **cutting** the **use of fossil fuels** and their subsequent **emissions.**

Car exhausts have **catalytic converters.**

- They reduce amount of toxic gases released;
- They contain platinum and rhodium as catalysts.

5. Oxidation

In oxidation reactions, a substance **gains oxygen.**
Metals and non-metals can take part in oxidation reactions (be **oxidised**).
Examples:

- Magnesium reacts with oxygen to produce magnesium oxide:

Magnesium + oxygen → magnesium oxide

$2Mg + O_2 \rightarrow 2MgO$

- Carbon reacts with oxygen to form carbon dioxide:

Carbon + oxygen → carbon dioxide

$C + O_2 \rightarrow CO_2$

6. Identification Tests

Lime water – colour change from colourless to **cloudy when carbon dioxide.**
Glowing splint – will relight when placed in **oxygen.**
Blue cobalt chloride paper – colour change from blue to pink with **water.**
Hydrogen test - Lit split causes a squeaky pop when placed in **hydrogen.**

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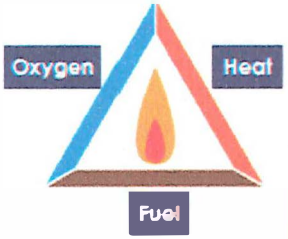
9CE - Energetics And Rates

7. Combustion

- **Combustion** is another name for burning fuels.
- It is an **exothermic** reaction.
- It is an example of an **oxidation** reaction.



8. Complete Combustion

- **Fuels** contain **hydrocarbons** which react with oxygen when they **burn**;
- With enough oxygen, **complete combustion** happens:
  - The hydrogen atoms combine with oxygen to make water vapour, H_2O
  - The carbon atoms combine with oxygen to make carbon dioxide, CO_2
  - The **maximum amount of energy** is released.

The equations for the complete combustion of **methane**.

Methane + oxygen → water + carbon dioxide

$$CH_4 + 2O_2 \rightarrow 2H_2O + CO_2$$

9. Incomplete Combustion

- Happens when there is **not enough oxygen**;
- Water vapour and carbon dioxide are still produced;
- Two other products are also produced:
  - **Carbon monoxide**, CO; colourless toxic gas.
  - Particles of **carbon** (soot/smoke); causes breathing problems.
- The **maximum amount of energy** is **NOT released.**

10. Thermal Decomposition

This is the **breaking down of a substance using heat**, to form two or more products.

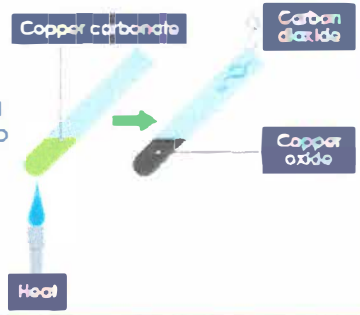
Many **metal carbonates** take part in thermal decomposition reactions.

For example, copper carbonate:
copper carbonate is green; copper oxide is black.
Copper carbonate → copper oxide + carbon dioxide
$CuCO_3 \rightarrow CuO + CO_2$

Other metal carbonates decompose in the same way. When they do, they follow this equation:
metal carbonate → metal oxide + carbon dioxide

For example, calcium carbonate:
calcium carbonate → calcium oxide + carbon dioxide
$CaCO_3 \rightarrow CaO + CO_2$

Thermal decomposition is an example of an **endothermic** reaction. Energy must be supplied **constantly** for the reaction to keep going.



11. Conservation Of Mass

Atoms are not destroyed nor created during chemical reactions, so in any reaction:

Total mass of reactants = total mass of products

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9BB - Biological Systems And Processes

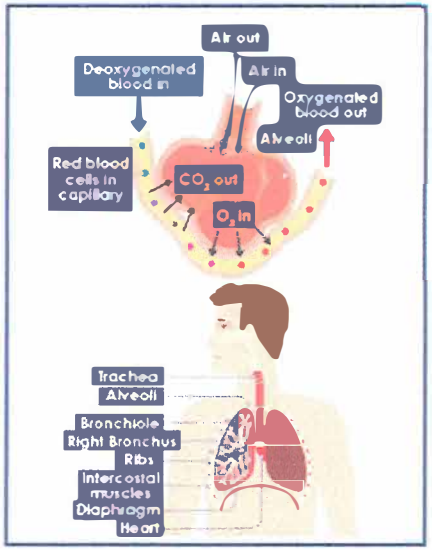
1. The Human Gas Exchange System

- Oxygen is needed for respiration;
- Carbon dioxide produced in respiration needs to be removed;

Gas exchange is moving oxygen from the air into the blood, and removing waste carbon dioxide from the blood into the air.

The respiratory system contains the organs that allow us to get the oxygen we need and to remove the waste carbon dioxide we do not need:

- Air passes from the mouth into the **trachea (windpipe)**;
- The trachea divides into two **bronchi** - one for each lung;
- Each bronchus divides into smaller tubes called **bronchioles**;
- At the end of each bronchiole, there are air sacs (**alveoli**);
- The alveoli increase the surface of the lungs.



2. Aerobic Respiration

Energy is needed for:

- Growth and repair;
- Movement;
- Control of body temperature in mammals/birds.

The equation for aerobic respiration is:

glucose + oxygen → carbon dioxide + water

- Glucose and oxygen react to produce carbon dioxide and water and release energy;
- It is aerobic respiration because oxygen is used;
- Respiration happens in all living cells, including plant and animal cells;
- Takes place in the **mitochondria** of the cell;
- Energy is released from glucose;
- Do not confuse respiration with breathing (which is called **ventilation**).

3. Ventilation

- Ventilation is another word for breathing;
- It involves movements of the **ribs, intercostal muscles** and **diaphragm** to move air in and out of the lungs;
- **Inhale** – breathing in; **exhale** – breathing out.

	Inhaling	Exhaling
Diaphragm	Contracts and moves downwards	Relaxes and moves upwards
Intercostal Muscles	Contract, moving the ribs upwards and outwards	Relax, letting the ribs move downwards and inwards
Volume Of Ribcage	Increases	Decreases
Pressure Inside The Chest	Decreases below atmospheric pressure	Increases above atmospheric pressure
Movement Of Air	Moves into the lungs	Moves out of the lungs

4. Features Of The Alveoli

- Increase surface area of lungs;
- Moist, thin walls (just one cell thick);
- A lot of tiny blood vessels called **capillaries**.

The gases move by **diffusion** (from a **high concentration to a low concentration**):

- Oxygen diffuses from the air into the blood;
- Carbon dioxide diffuses from the blood into the air.

5. Anaerobic Respiration

In humans: The equation for anaerobic respiration in humans is:

glucose → lactic acid

- Lactic acid builds up in the muscles;
- Causing pain and tiredness (fatigue);
- Can lead to cramp;
- Lactic acid is broken down when you start aerobic respiration again.

6. Fermentation

The equation for anaerobic respiration in yeast is:

Glucose → ethanol + carbon dioxide

- Anaerobic respiration happens in microbes (e.g. bacteria);
- They need to release energy from glucose;
- Yeast (unicellular fungi) can carry out an anaerobic process called **fermentation**;
- Ethanol (alcohol) is produced;
- The ethanol is used to make beer and wine;
- The carbon dioxide helps bread rise.

7. Comparing Aerobic & Anaerobic

	Aerobic	Anaerobic
Needs Oxygen?	Yes	No
Needs Glucose?	Yes	Yes
Product(S) Formed	Carbon dioxide and water	Lactic acid
Energy Released	More	Less

8. Impact Of Exercise

Exercise causes an increase in:

- Breathing rate;
- Tidal volume (volume of air breathed in/out in one breath);

Regular exercise can increase the:

- Strength of the **diaphragm** and **intercostal muscles**;
- Vital capacity (volume of air that can be forcibly exhaled after inhaling fully).

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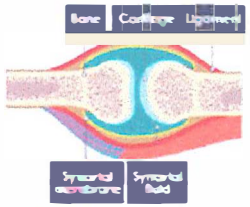
9BB - Biological Systems And Processes

1. Joints

- Most joints allow parts of the skeleton to move.
- The human skeleton has joints called synovial joints.



The synovial joint

- The ends of the bones in a joint are covered with a tough, smooth substance called **cartilage**.
- This is kept slippery by a liquid called **synovial fluid**.
- Tough **ligaments** join the two bones in the joint.
- If two bones moved against each other without cartilage they would eventually wear away.
- This is called **arthritis**.

Type of joint	Examples	Movement allowed
Hinge joint	Knee, elbow	The same as opening and closing a door with no rotation (turning)
Ball and socket	Hip, shoulder	Back and forth in all directions, and rotation

2. The Skeleton

- Bone is a living **tissue** with a blood supply.
- It is constantly being dissolved and formed.
- It can repair itself if a bone is broken.
- Calcium and other minerals make bone strong but slightly flexible.

Four functions of the skeleton:

1) Support the body

- The skeleton supports the body. For example, without a backbone we would not be able to stay upright.

2) Protection of vital organs

- The skull protects the brain.
- The ribcage protects the heart and lungs.
- The backbone protects the spinal cord.

3) Movement

- Bones are linked together by joints.
- Some are **fixed joints** – e.g. in the skull.
- Some are **flexible joints** – e.g. the knee.
- Muscles move bones attached by joints.

4) Making blood cells

Two main types of blood cell:

- **Red blood cells**, which carry oxygen.
- **White blood cells**, which destroy **harmful microbes** (pathogens).
- Both are made in the bone marrow - soft tissue inside large bones protected by the hard part of the bone around it.

3. Muscles And Movement

- Muscles work by getting shorter - they contract.
- Muscles are attached to bones by strong tendons.
- During muscle contraction, it pulls on the bone, moving it.

Antagonistic muscles

- Muscles can only pull, they cannot push.
- Muscles work in pairs, called antagonistic muscles.

Your elbow joint has two muscles that move your forearm up or down. These are the **biceps** and the **triceps**.

- To raise the forearm, the biceps contracts and the triceps relaxes.
- To lower the forearm again, the triceps contracts and the biceps relaxes.

- Muscles exert a force on bones when they contract.
- You could work out the force exerted by the biceps muscle using the idea of moments.
- The way in which muscles and bones work together to exert forces is called biomechanics.

4. Drugs

Drugs are a substance that has an effect on the body.

They can be:

- **Medicines** are drugs that treat pain or disease.
- **Recreational drugs** are taken because people like the effects they have on their bodies.
- Some recreational drugs are legal, eg **caffeine**, **tobacco** & **alcohol**.
- Most recreational drugs are illegal, eg **cannabis**, **ecstasy** and **heroin**.
- Recreational drugs can be classified as a **depressant** or a **stimulant**.
- Most recreational drugs can be **addictive**.

5. Asthma

- Asthma affects the bronchioles.
- Airways can become inflamed, swollen and constricted (narrowed).
- Excess mucus is produced.

During an asthma attack:

- The lining of airways becomes **inflamed**.
- Fluid builds up in the airways.
- Muscles around bronchioles contract, which **constricts** airways.

Symptoms are:

- **Wheezing**, **tight chest** and **difficulty breathing**.

6. Smoking And Pregnancy

Smoking can damage the foetus during gestation. For example, it can:

- Increase the risk of complications in pregnancy and birth.
- Make it less likely to have a healthier pregnancy and a healthier baby.
- Increase the risk of stillbirth.
- Make it more likely to be born too early.
- Be more likely to be born underweight.

7. Smoking

Smoking is very harmful to health. Smoke contains harmful substances.

Tar

- Causes cancer of the lungs, mouth and throat.
- Coats the inside of the lungs causing coughing.
- Damages the alveoli, making gas exchange difficult.

Smoke

- Cells in the trachea, bronchi and bronchioles produce mucus.
- Mucus traps dirt and microbes.
- Cells with cilia move the mucus out of the lungs.
- Smoke and tar damages the cilia.
- Smokers cough to move the mucus and are more likely to get bronchitis.

Nicotine

- Nicotine is addictive.
- Nicotine increases heart rate and blood pressure, and makes blood vessels narrower.
- This can lead to heart disease.

Carbon monoxide

- Carbon monoxide takes the place of oxygen in red blood cells.
- This reduces amount of oxygen that the blood can carry.
- It means the circulatory system has to work harder, causing heart disease.

Science
10 of 11

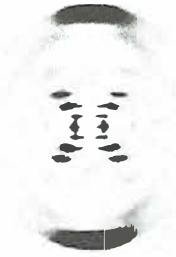
9BB - Biological Systems And Processes

1. Structure Of DNA

Genetic information is passed from one generation to the next.
This is called **heredity** and why we resemble our parents.

The genetic information itself is contained in a complex molecule called **DNA**.

Scientists worked out the structure of DNA in the 1950s. Rosalind Franklin made 'X-ray diffraction' images of DNA.



An X-ray diffraction image of DNA

James Watson and Francis Crick used information from one of her images to work out a model for the structure of DNA.

Work by Maurice Wilkins, a colleague of Franklin, supported their model.

4. Watson And Crick

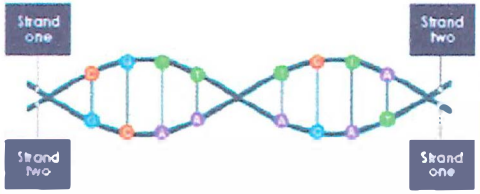
Watson and Crick worked out how DNA was arranged:

- DNA has two strands;
- The strands are twisted to form a **double helix**;
- The strands are held together by **bonds** between **base pairs**.

2. Key terms

Key Terms	Definition
Base Pair	The pair of nitrogenous bases that connects the (complementary) strands of DNA
Bond	The chemical link that holds molecules together
Chromosome	Strands of DNA
DNA	Deoxyribonucleic acid. The chemical carrying the genetic code
Double Helix	The shape of DNA molecule, two strands twisted in a spiral
Gene	A section of DNA which we inherit from our parents, and which controls part of a cell's chemistry (protein production)
Heredity	Genetic information that determines an organism's characteristics, passed on from one generation to another
Nucleus	Controls what happens inside the cell, and contains chromosomes

5. Diagram of DNA



A DNA molecule showing its base pairs, G-C and A-T

3. Comparing Sizes

Each cell with a nucleus contains chromosomes, which are made from DNA

6. Chromosomes, DNA And Genes

The DNA in all of your cells is approximately two metres long, except for:

- Red blood cells which have none;
- Sperm or eggs only have about one metre.

- It is coiled into structures called chromosomes.
- Chromosomes are found in the nucleus of each cell.

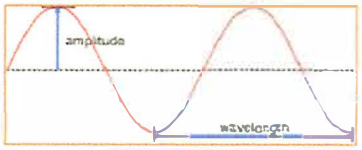
- Human body cells each contain **23 pairs of chromosomes**;
- Half of which are from each parent;
- Human gametes (eggs and sperm) each contain 23 chromosomes;
- When an egg is fertilised by a sperm, it becomes a cell with 23 pairs of chromosomes;
- We each have half of our chromosomes and DNA come from each parent;
- DNA makes up genes, which makes up chromosomes;
- One copy of all your chromosomes is called your **genome**.

Science
11 of 11

9PS - Sound

1. Wave Features

- **Amplitude:** the maximum height of the wave from its resting position:
  - The greater the amplitude, the louder the sound;
- **Wavelength:** the distance between two crests (tops) next to each other (or any other two identical point on waves next to each other);
- **Frequency:** the number of **waves per second (Hertz - Hz):**
  - The higher the frequency, the closer together the waves are, the higher the pitch.



2. Ears

- An ear has an **eardrum**, connected to **three small bones**;
- Vibrations in air make the eardrum vibrate which in turn vibrates the three small bones (called **ossicles**) to a spiral structure called the **cochlea**;
- Signals are passed from the cochlea to the brain through the **auditory** nerve.

3. Water Waves

- Water waves move with a transverse motion;
- The **undulations** (up and down movement) are at 90° to the direction of travel;
- Water waves, like all waves, can be **reflected**, **refracted** and **diffracted**.

Superposition is where two waves meet and they affect each other: **adding** or **cancelling**.

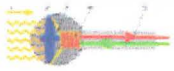
Adding (constructive interference)

If two waves meet each other **in step**, they add together and reinforce each other. They produce a much higher wave, a wave with a greater **amplitude**.

Cancelling (destructive interference)
If two waves meet each other **out of step**, they cancel out.

4. Microphones

- Microphones contain a **diaphragm**, which does a similar job to an eardrum;
- The vibrations in air make the diaphragm vibrate. These vibrations are changed to electrical impulses.



5. Types Of Waves

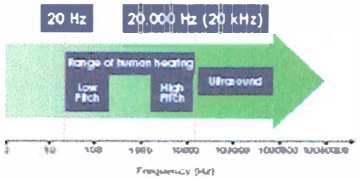
All waves transfer energy from place to place.
There are two types of wave: **longitudinal** and **transverse**:

Longitudinal waves
Sound waves are **longitudinal waves**.
The vibrations are **parallel to the direction of travel**.

Transverse waves
Light waves (and water waves) are **transverse waves**.
The vibrations are **perpendicular to the direction of travel**

6. Ultrasound

Human beings can generally hear sounds as low as 20 Hz and as high as 20,000 Hz (20 kHz).



Ultrasound is:
- Any sound with a frequency of more than 20,000 Hz;
- Too high pitched for humans to hear;
- Other animals (e.g. dogs, cats and bats) can hear it;

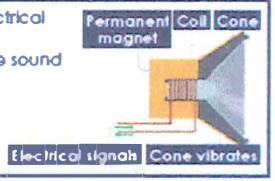
Ultrasound can be used to check on the health of unborn babies, clean jewellery and in physiotherapy.

7. Reflection

- Sound waves can reflect off surfaces;
- These reflections are heard as **echoes**;
- **Hard, smooth surfaces** are good at reflecting sound (more echoes);
- **Soft, rough surfaces** are good at absorbing sound (less echoes).

8. Loudspeakers

- Loudspeakers work by converting electrical current into vibrations;
- This moves the cone which creates the sound waves.



9. Sound Waves

- When something vibrates, it produces sound;
- These sound waves are carried by vibrating particles;
- Sound can only travel through solids, liquids or gases;
- They cannot travel through empty space (a vacuum).

The speed of sound is 340 m/s in air

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Year 9

Geography

Heart - Ambition - Respect - Tenacity

Background:
1. Development means positive change that makes things better.
2. As a country develops it usually means that the people's standard of living and quality of life improve. ***(B)***
3. Different factors can affect development such as economic, social, and political factors. ***(A)***
4. Emerging countries have begun to experience higher rates of development, with a rapid growth in secondary industries. ***(A, C)***
5. Emerging countries have some of the fastest rates of urbanisation in the world. ***(D)***
6. This is causing urban areas (cities) to become highly populated; this process can have both opportunities and challenges. One such challenge is the growth of squatter settlements. ***(E)***
7. Emerging countries often host the factories of many transnational companies. They provide wages and taxes and can promote development. However, they can also cause negatives impacts. ***(F, G)***

A.	**Characteristics of emerging countries *(7)***
BRIC countries	Brazil, Russia, India, China.
MINT countries	Mexico, Indonesia, Nigeria, Turkey.
Industrialisation	The process of a country moving from mostly agriculture (farming) to manufacturing (making) goods.
Employment structure	How the workforce is divided up between primary, secondary, tertiary and quaternary employment.
Secondary industry	An industry which manufactures goods.
Exports	Sending goods to another country for sale.
Urbanisation	The growth in the number/ proportion of people living in towns and cities.

B.	**Development indicators *(3)***
GDP per capita	The total value of goods and services sold by a country in a year divided by the population.
Human Development Index (HDI)	A development measure which combines GDP per capita, life expectancy and education.
Life expectancy	The average age you are expected to live to in a country.

D.	**Rural to urban migration *(4)***
Rural to urban migration	The movement of people from rural areas (countryside) to urban areas (cities).
Push factor	Things that make people want to leave an area e.g. a lack of jobs.
Pull factor	Things that attract people to live in an area e.g. good health care.
Mechanisation	When machines begin to do the work which humans once completed.

F.	**Transnational corporations (TNCs) *(5)***
Transnational corporation	Those that operate across more than one country.
Footloose	Industries which are not tied to a location due to natural resources or transport links.
Globalisation	The increased connectivity of countries around the world e.g. through trade.
Host country	The country where the TNC places its factories e.g. in an emerging or developing country.
Source country	The country where the headquarters for the TNC is located e.g. a developed country.

C.	**Encouraging development *(4)***
Subsidy	Money given by a government to help an industry keep down the cost of exports.
Tax breaks	This reduces the amount of tax a company must pay (normally for a fixed period), therefore increasing profit.
Minimum wage	The lowest wage permitted by law in a country.
Trade unions	An organisation of workers who work to protect the rights of those employed.

E.	**Squatter settlements *(5)***
Squatter/ shanty settlement	An area (often illegal) of poor quality housing, lacking basic services e.g. water.
Inequality	Differences in wealth, and wellbeing.
Sanitation	Measures to protect public health e.g. clean water and disposing of sewage.
Informal economy	Jobs which are not taxed, workers do not have contracts or rights.
Quality of life	A measure of how 'wealthy' people are, but measured using housing, employment and environment, rather than income.

G.	**Impact of TNCs**
Positive: *(5)*	1. More jobs. 2. More taxes. 3. Invest in infrastructure projects. 4. GDP increases. 5. Develop workers skills.
Negative: *(3)*	1. Can exploit workers e.g. long hours. 2. Most of the profits from TNCs leave the country where production takes place. 3. Increased levels of pollution e.g. air and water (from industrial waste).

Life in an Emerging Country

Climate Change

Background:

1. Since the 1860s the global climate has been recorded.
2. Since then, the climate globally has increased by 0.8° Celsius.
3. Climate scientists can use methods to find out about the global climate before we started recording it. ***(B)***
4. From this evidence we can see that the planet has always gone through periods of warming and cooling. ***(A)***
5. However, the rapid increase of CO_2 in the atmosphere from burning fossil fuels, is causing the enhanced greenhouse effect. ***(D)***
6. The enhanced greenhouse effect is causing changes to the planet, such as the melting of Artic sea ice, rising temperatures, and an increase in extreme weather events such as tropical storms. ***(E, F)***
7. Countries are trying to resolve the issues related to climate change by limiting the amount of CO_2 released into the atmosphere, this is known as mitigation. ***(G, H)***
8. Some countries are trying to adapt to climate change by building flood barriers and growing drought resistant crops. ***(G, H)***

A.	**Changes in climate *(3)***
Climate change	The process of the Earth's climate changing over time.
Glacial periods	Cold periods.
Inter-glacial periods	Warm periods.

B.	**Measuring climate change *(3)***
Ice cores	Each layer of ice in a core represents a different year. CO_2 can be measured in each layer, and therefore the temperature.
Tree rings	Each ring represents a different year. Thicker rings show a warmer climate.
Historical evidence	Paintings and diaries e.g. paintings of ice fairs on the frozen Thames 500 years ago.

C.	**Natural climate change *(3)***
Volcanic eruptions	Ash from volcanic eruptions can block sunlight, making it colder.
Sun spots	The sun can give out more energy due to an increase in sun spots.
Orbital change	The orbit of the sun changes from oval (ellipse) to circular approx. 98,000 yrs.

E.	**Effects on people *(6)***
Tropical storms	Increase in frequency and intensity so more damage.
Sea-level rise	Increased risk of floods, damaging property and businesses.
Melting Arctic ice	Affects trading routes in the Arctic Circle.
More droughts/ floods	Crop failure, could lead to starvation and famine.
Cost of defence	Governments have to spend more money on disasters instead of developing.
Environmental Refugees	Pressure on countries to accept refugees.

G.	**Strategies to resolve climate change *(4)***
Adaptation	Adapting to climate change to make life easier.
Adaptation examples *(3)*	1. Building flood defences. 2. Growing new crops to suit the new climate. 3. Irrigation channels, sending water from areas of surplus to deficit.
Mitigation	Trying to stop climate change from happening by reducing greenhouse gases.
Mitigation examples *(3)*	1. International agreements. 2. Alternative energies. 3. Carbon capture.

D.	**Human-induced climate change *(5)***
Greenhouse effect	The way that gases in the atmosphere trap heat from the sun. Like glass in a greenhouse, they let heat in but prevent most from escaping.
Greenhouse gases	Gases like CO_2 and methane that trap heat around the Earth, leading to climate change.
Transport	More cars, so more CO_2 causing the enhanced greenhouse effect.
Farming	Farming livestock produces methane, this is a greenhouse gas.
Energy	More energy required, meaning more fossil fuels burnt, so more CO_2.

F.	**Effects on the environment *(4)***
Sea temperature rises	Coral bleaching and destruction of marine ecosystems.
More droughts	Migration/ death of species which can not survive drought conditions.
Melting glaciers (ice rivers)	Will send more fresh water into the sea, causing the sea level to rise.
Melting Arctic ice	Loss of habitats for animals, such as polar bears.

H.	**Place specific examples *(2)***
Adaptation	***The Thames Barrier.*** Positive: Stops flooding due to rising sea levels. Negative: Expensive
Mitigation	***The Paris Agreement.*** Positive: Countries are trying to lower CO_2 emissions. Negative: The USA pulled out and China did not sign up.

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Year 9

History

Heart - Ambition - Respect - Tenacity

9.04 Holocaust

Key Vocabulary

1	Anti-Semitism	A hatred or prejudice towards Jews.
2	Boycott	Refusal to participate in an event or to buy goods in protest.
3	Bystander	Someone who is witness to an event,but does not take part.
4	Collaborator	A person who cooperates or works together with others to help or allow something to happen.
5	Ghetto	Part of a city, usually poor conditions, occupied by a minority group.
6	Jehovah's Witness	A type of Christian. They are pacifists, meaning they refuse military service on religious grounds..
7	Persecution	hostility and ill-treatment, especially because of race or political or religious beliefs; oppression..
8	Pogrom	Organised massacre of an ethnic group, especially Jews.
9	Resistance	Refusal to cooperate or to fight back against authority, especially in the face of persecution or occupation
10	Sterilisation	To remove or block sex organs to stop someone being able to have children.

Themes and Threads

Power

The control a person or group has in a country.

For example, the Nazi regime exerted its power of Jewish communities.

Identity

The qualities and characteristics that make a person who they are and what they value as important.

For example, the religious identify of Jewish people was often (incorrectly) linked to a racial identity..

Connectivity

The act of joining or being linked to somewhere, someone or something else.
For example, the role of bystanders and collaborators who may not have actively killed people but did create an environment where it could happen.

Unit 7: Shifting World Orders in the Modern World

1. How did Europe fall under the control of dictators?


Key concepts:

- The political spectrum
- Left wing
- Right wing
- Dictatorship
- Totalitarianism

Keywords:

1. **Communism** - An economic and political system in which all property is state-owned
2. **Democracy** - A political system that allows the people to vote on how the country is run
3. **Dictator** - A single strong leader who can do what they want and has complete power
4. **Fascism** - A political system that puts the strength of the nation above the individual
5. **Totalitarian** - A form of rule in which the government or leader has unlimited power over all aspects of society
6. **Autocracy** - A system of government by one person with absolute power
7. **Bolsheviks** - The radical left-wing political group which seized control of the Russian government in 1917
8. **Proletariat** - Used by communists to describe the working class
9. **Tsar** - The Russian emperor
10. **Collectivisation** - The grouping together of farms to be owned by the state
11. **Industrialisation** - The widescale development of industries in a country
12. **Purge** - To remove a group of people from an organisation
13. **Soviet Union** - Or USSR, the new name for Russia under Communist control
14. **Fuhrer** - Hitler's title from 1934, when he became the absolute ruler of Germany
15. **Police state** - A country where the government uses the police to spy on the people and stamp out opposition
16. **Weimar Republic** - The German democratic government established after WWI

Key dates:

- **1917** – The Bolsheviks seize control of Russia
- **1919** – Germany forced to sign Treaty of Versailles
- **1924** – Stalin becomes leader of the Soviet Union
- **1929** – The Great Depression
- **1933** – Hitler becomes Chancellor of Germany
- **1934** – Purges begin in the Soviet Union and Hitler becomes Fuhrer

2. Why was Nazism defeated?

Key people:

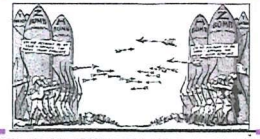
- Winston Churchill
- Dwight Eisenhower
- Franklin Roosevelt
- Stalin

Keywords:

1. **Allies** - The alliance between Britain, the USA, the USSR and France
2. **BEF** - British Expeditionary Force
3. **Blitzkrieg** - Tactic used by Hitler meaning lightening war
4. **Axis** - The alliance that stood opposed to the allies made up of Germany, Japan and Italy
5. **Encircle** - To surround an enemy army
6. **Red Army** - Army of the Soviet Union
7. **Pincer movement** - A movement by two separate groups of troops to close in on an enemy from two different directions
8. **Isolationist** - The American policy of isolating itself from European and world affairs
9. **Lend-Lease** - A scheme under which the USA lent or leased vital supplies to Britain during the war
10. **Tariff** - A tax paid on certain imports or exports
11. **Luftwaffe** - The Nazi air forces
12. **Operation Overlord** - The allied military operation to liberate France from Nazi occupation

Key dates:

- **1 September 1939** Hitler invades Poland
- **26 May – 4 June 1940** Dunkirk evacuation
- **14 June 1940** Paris falls to the Nazis
- **22 June 1941** Hitler launches Operation Barbarossa
- **7 December 1941** Attack on Pearl Harbor
- **11 December 1941** Hitler declares war on the USA
- **September 1942-January 1943** The Battle of Stalingrad
- **6 June 1944** D-day
- **8 May 1945** End of the war in Europe




3. Why was Europe split in half?

Key people:

- 'The Big Three' – Winston Churchill, Roosevelt, Stalin
- Harry Truman

Keywords:

1. **Capitalism** - Where trade and industry are run by private individuals for profit
2. **Cold War** - A state of political hostility between countries that doesn't go quite as far as open warfare
3. **Sphere of influence** - Region of the world in which one Superpower is dominant
4. **Superpower** - An unusually strong country
5. **Containment** - The US policy of stopping Communism from spreading
6. **Satellite state** - Countries that came under direct control of the Soviet Union after WWII
7. **Arms race** - When countries compete against each other to make more and more powerful weapons
8. **Deterrent** - Something that prevents one country from attacking another
9. **Mutually Assured Destruction** - The existence of massive nuclear weapons meant that a future World War could end life on earth

Key dates:

- **February 1945** Yalta Conference
- **May 1945** Germany defeated
- **July 1945** Potsdam Conference
- **6-9 August 1945** USA drops atomic bombs
- **March 1947** Truman Doctrine announced
- **March 1948** Marshall Aid introduced
- **June 1948** Berlin Blockade

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Year 9

French

Heart - Ambition - Respect - Tenacity

Unit 9: Family and Relationships

9.1.1 Décris ta famille - Describe your family	
Mon père/beau-père	My Dad/stepdad
Ma mère/belle-mère	My Mum/stepmum
Mon frère aîné	My older brother
Mon frère cadet/plus jeune	My younger brother
Mon demi-frère	My half brother
Ma soeur aînée	My older sister
Ma soeur cadette/plus jeune	My younger sister
Ma demi-soeur	My half sister
Mes parents	My parents
Mes grands-parents	My grandparents
Elle/il a les cheveux/yeux ...	S/he has ... hair/eyes
Elle/il a ... ans.	S/he is ... years old
Elle/il est.../Ils/elles sont...	S/he is.../They are...

9.1.2 Est-ce que tu t'entends bien avec ta famille? - Do you get on well with your family?	
Je m'entends bien avec...	I get on well with...
Je ne m'entends pas bien avec...	I don't get on well with...
On sort	We go out
On discute	We discuss
On partage	We share
On se dispute	We argue
On a beaucoup en commun	We have lots in common
Elle/il m'énerve	S/he annoys me
Elle/il me fait rire	S/he makes me laugh
Ensemble	Together

9.2.1 Que fais-tu et quand? - What do you do and when?	
Je joue	I play
Je joue au basket/Je joue au parc	I play basketball/I play in the park
Je fais	Literally: I do/make (many expressions need faire)
Je fais de la natation/Je fais du sport	I swim – I go swimming/I do sport
Je vais	I go
Je vais au centre/Je vais à une fête	I go to town/I go to a party
Je sors	I go out
Je reste dans ma chambre	I stay in my room
Je joue du/de la/de l' + instrument	I play an instrument
Je joue du piano/Je joue de la guitare	I play the piano/I play the guitar

9.2.2 Que fait ton frère/ta sœur le weekend? - What does your brother/sister do at the weekend?	
Elle/il joue	S/he plays
Elle/il fait	Literally: S/he does/makes (many expressions need faire)
Elle fait du sport/Il fait les devoirs	She does sport/He does homework
Elle/il va	S/he goes
Elle/il sort	S/he goes out
Elle/il reste dans sa chambre	S/he stays in his/her room
Elle/il s'entraîne	S/he trains
Elle/il aime (+infinitive)...	S/he likes (to...)
Elle/il est fan de ...	S/he is a fan of...
Elles/ils jouent ...	They play...
Elles/ils font...	They do...
Nous sommes très différents	We ore very different
Nous avons des goûts similaires	We have similar likes/interests
Son/Sa/Ses (agrees with the object)	Her/his

Unit 9: Family and Relationships

9.3.1 Comment serait ton petit ami idéal/ta petite amie idéale? - What would your ideal boyfriend/girlfriend be like?	
Aimerais-tu te marier ou avoir une famille ?	Would you like to get married or have a family?
Mon petit ami idéal/ma petite amie idéale	My ideal boyfriend/girlfriend
(Ne) serait (pas)...	Would (not) be...
(N') aurait (pas)...	Would (not) have...
Aimerait	Would like...
Je voudrais/J'aimerais	I would like
Me marier	To get married
Séparer	To separate
Divorcer	To divorce
Tomber amoureux	To fall in love
Me fiancer	To get engaged
Vivre ensemble	To live together
Le mariage	Marriage/wedding
Célibataire	Single
La liberté	Freedom

9.3.2 À ton avis, qu'est-ce qu'un bon ami/une bonne amie? - In your opinion, what is a good friend?	
Un bon ami/une bonne amie est...	A good friend is...
Me fait rire	Makes me laugh
Me fait heureux/heureuse	Makes me happy
M'aide avec les problèmes	Helps me with problems
M'accepte	Accepts me
Me comprend	Understands me
Partage tout	Shares everything
L'amitié	Friendship

9.3.3 Quels sont tes projets pour le weekend? - What are your plans for the weekend?	
Je vais (+ infinitive)	I am going
Je vais faire la fête	I am going to go partying
Elle/Il va (+ infinitive)	S/he is going
Nous allons (+ infinitive)	We are going
Elles/Ils vont (+ infinitive)	They are going
J'espère (+ infinitive)	I hope
Ça va être	It's going to be
Ce sera	It will be
Comme d'habitude	As usual

9.4.1 Qu'est-ce que tu as fait le weekend dernier? - What did you do last weekend?	
J'ai dû (+ infinitive)	I had to...
Je voulais (+ infinitive)	I wanted to...
C'était...	It was...
Je me suis bien amusé(e)	I enjoyed myself
Il faisait chaud/froid	It was hot/cold
Il pleuvait	It rained

9.4.2 Qu'est-ce que tu faisais le week-end quand tu étais petit(e)? - What did you (used to) do at the weekend when you were little?	
Quand j'étais petit(e)	When I was little
J'aimais/J'adorais ça	I liked/loved it/used to like/love it
J'aimais/J'adorais (+infinitive)	I liked/loved to.../I used to like/ love to...

Unit 10: Festivals and Traditions

10.1.1 Qu'est-ce que tu aimes manger? - What do you like to eat?	
Le petit-déjeuner	Breakfast
Le déjeuner	Lunch
Le casse-croûte/Le goûter	A snack
Le dîner	Dinner/tea
Je grignote	I snack
Je mange	I eat
Je prends	I take (or 'I have' + food)
Manger équilibré	To eat a balanced diet
Manger sainement	To eat healthily
Le repas	Meal
Un plat à emporter	A takeaway
La viande	Meat
Le repas végétarien	Vegetarian meal
Les légumes	Vegetables
Le riz	Rice
Les pâtes (à la sauce tomate)	Pasta (in a tomato sauce)
Le poisson (le thon/le saumon)	Fish (tuna/salmon)
Vers midi/vers 18h	At about midday/At about 18:00
Mon plat préféré	My favourite dish
En famille	Together as a family

10.1.2 Que penses-tu de la cuisine francophone? - What do you think of French food?	
La cuisine traditionnelle	Traditional food/dishes
Une spécialité	A speciality
Les pays francophones européens	European French-speaking countries
Les pays francophones africains	African French-speaking countries
Le plat national	The national dish
Semblable à	Similar to
Un piment	A chilli
Un poivron	A pepper
Les noix	Nuts
Les gaufres	Waffles
Les moules-frites	Mussels and chips
La fondue au fromage	Cheese fondue (a melted cheese dish)
En comparaison avec	Compared to

10.2.1 Quelles fêtes sont célébrés en France/dans les pays francophone? - Which festivals/celebrations are celebrated in France/French-speaking countries?	
On fête...	We/One celebrates...
La Saint Sylvestre	New Year's Eve
Le Jour de l'an	New Year's Day
Le Noël	Christmas
Pâques (f)	Easter
La Fête des mères	Mothers' Day
La fête nationale	Bastille Day/ 14th July (in France) or Independence Day in other countries.
Jours fériés (m)	Public holidays/bank holidays
Un défilé (militaire)	A (military) parade
Les chars (m)	Floats (in a parade)
Les feux d'artifice (m)	Fireworks
Un grand repas	A big meal
Les concerts (m)	Concerts
Les cadeaux (m)	Presents
Le gâteau d'anniversaire	Birthday cake
Les bougies (f)	Candles
On va à l'église	We go to church
On offre des cadeaux	We offer/give presents.
On fête dans les rues	We celebrate in the streets
On décore...	We decorate...

10.2.2 Parle-moi d'une fête que tu as célébrée - Tell me about a festival/celebration that you (have) celebrated	
L'année dernière	Last year
Il y a deux mois/un an	Two months/ a year ago
J'ai fêté.../On a fêté...	I celebrated/ we celebrated
J'ai fait un gâteau/Il/elle a fait un gâteau	I made a cake/He/she made a cake
... m'a acheté un/une...	... bought me a...
J'ai invité mes amis chez moi	I invited my friends to my house
J'ai organisé une boum/une fête	I organised a party
J'ai porté un déguisement	I wore fancy dress
Mes parents m'ont permis de/d'... (+ infinitive)	My parents allowed me to...
Avoir une boum	To have a party
Sortir	To go out

Unit 10: Festivals and Traditions

10.2.3 Quel festival/Quelle fête voudrais-tu visiter et pourquoi? - What festival would you like to visit and why?	
Ça a l'air passionnant	It looks exciting
Ça a l'air intéressant	It looks interesting
Je m'intéresse à la culture	I'm interested in culture
Je m'Intéresse aux traditions	I'm interested in traditions
Je (ne) suis (pas) religieux/religieuse	I am (not) religious
Le Poisson d'Avril	April Fools' Day
Les blagues	Jokes/pranks
La Chandeleur	Candlemas (religious holiday where pancakes are eaten)

10.3 Comment cela se compare-t-il aux traditions de ton pays? - How does it compare to traditions in your country?	
En comparaison de...	In comparison to...
Que/Qu'en France	Than/Than in France
C'est plus/moins...	It's more...
Tandis que/qu'	Whereas
On met/Ils mettent	We put/they put
On a/Ils ont	We have/they have
On mange/Ils mangent	We eat/they eat
On fait/Ils font	We do/they do
On fête/Ils fêtent	We celebrate/they celebrate
Une couronne	A crown
Jour des Rois	Epiphany (King's day in French) - 6th January
La galette des rois	King cake/epiphany cake
Les pétards de Noël	Christmas crackers
Semblable à	Similar to
(Vraiment) différent(e)	(Really) different
Le Mardi gras	Shrove Tuesday

10.4 Qu'est-ce qu'il y a sur la photo? - What's in the photo?	
Sur la photo	In the photo
Il y a	There is/are
(Aussi) Je peux voir	(Also) I can see
Une famille/ des personnes/gens/des jeunes/ des enfants	A family/ some people/young people/ children
Un homme/Une femme/un garçon/une fille	A man/A woman/a boy/a girl
Dehors/à l'intérieur	Outside/indoors
Elle/il a l'air (content/triste)	S/he seems... (happy/sad)
Elles/ils ont l'air (content/triste)	They seem... (happy/sad)
Des bâtiments (modernes/vieux)	Some (modern/old) buildings
Un lac/une montagne/Un jardin	A lake/ a mountain/ a garden
Elle/il parle /se dispute/joue/travaille/ marche/mange	S/he is speaking/ is arguing/is playing/is working/is walking/is eating
Elles/Ils parlent/se disputent/jouent/ travaillent/marchent/mangent	They are speaking/arguing/playing/ working/walking/eating
Elle/il porte	S/he is wearing
À gauche/à droite	On the left/on the right
Au premier plan	In the foreground
En arrière-plan	In the background

Unit 11: A City Or Region In A French Speaking Country

11.1.1 Où habites-tu? - Where do you live? Qu'est-ce qu'il y a dans ta ville/région? - What is there in your town/local area?	
Dans ma ville il y a...	In my town there is/are...
Dans ma ville il n'y a pas de...	In my town there isn't...
Une piscine	A swimming pool
Une gare/gare routière	A train station/ bus station
Une boulangerie	A bakery
Une bibliothèque	A library
Un musée	A museum
Un parking	A car park
Un hôtel de ville/ une mairie	A town hall
Un centre commercial	A shopping centre
Un supermarché	A supermarket
Un centre de loisirs	A leisure centre
Un cinéma	A cinema
Un commissariat	A police station
Un parc d'attractions	A theme park

11.1.2 Qu'est-ce qu'on peut faire dans ta région? - What can you/one do in your local area?	
Il y a beaucoup à faire	There is lots to do
Il n'y a rien à faire/il n'y a pas grand-chose à faire	There is nothing to do/there isn't much to do
On peut (+ infinitive)	You/one can
On ne peut pas (+ infinitive)	You/one can't
En été	In summer
En hiver	In winter

11.1.3 Comment était ta région avant? - What was your local area like in the past?	
Dans le passé	In the past
Il y a dix/vingt/cinquante ans	10/20/50 years ago
Il y avait	There was/were or there used to be
Était	Was/used to be
Plus (+ adjective)	More
Plus de (+ noun)	
Plus à (+ verb)	
Moins (+ adjective)	Less/fewer
Moins de (+ noun)	
Moins à (+ verb)	

11.3.1 Comment ça se compare à...? - How does it compare to...?	
En comparaison avec ...	In comparison with ...
Que/Qu'à Paris	Than/Than in Paris
C'est plus...	It's more...
C'est moins...	It's less...
Ma région est...	My region is...
Le paysage est...	The scenery/landscape is...
La faune et flore est...	The fauna and flora are...
Il y a plus de choses à faire	There are more things to do
Il y a moins de choses à faire	There are fewer things to do
Ma région a plus/moins de...	My region has more/fewer...
Le volcan	Volcano
Les animaux	Animals
Les touristes	Tourists

Unit 11: A City Or Region In A French Speaking Country

11.3.2 Où aimerais-tu habiter à l'avenir? - Where would you like to live in the future?	
J'almerais/voudrais (+ infinitive)	I would like
Je n'almerais pas (+ infinitive)	I would not like to
À l'étranger	Abroad
Quelque part (en/au/aux + country)	Somewhere (in + country)
Un pays chaud	A hot country
Un pays francophone	A French-speaking country
Je suis fan de...	I am a fan of
...me plaît	I like ...
Les sports d'hiver	Winter sports
La nourriture	The food
La mode de vie	The way of life
Les gens sont...	The people are
Loin	Far (away)
Près (de)	Close (to)

11.4.1 Qu'est-ce que tu veux acheter? - What do you want to buy?	
Je veux acheter	I want to buy
Ça coûte combien ?/Ça fait combien ?	How much does it cost?
Ça coûte.../Ça fait...	That costs.../That comes to ...
Quelle couleur ?	Which colour?
Ce souvenir	This souvenir
Ce sweat à capuche	This hoodie
Ces porte-clés	These key rings
Cette écharpe	This scarf
Cette carte postale	This postcard
Cette crème solaire	This sun cream
Collectionner	To collect

11.5.1 Quel pays francophone aimerais-tu visiter? - Which French-speaking country would you like to visit?	
Je voudrais/almerais visiter...	I would like to visit...
Je visiterais...	I would visit...
Je ferais...	I would do...
La Côte d'Ivoire	The Ivory Coast
La Suisse	Switzerland
La Tunisie	Tunisia
Le Canada	Canada
Le Maroc	Morocco
Le Sénégal	Senegal
Les Seychelles	The Seychelles
La culture nord-africaine	North African culture
La culture nord-américaine	North American culture
Les villes anciennes	Ancient cities
Le désert	Desert
Le Lac Rose	Lake Retba (pink lake in Senegal)
Les plages tropicales	Tropical beaches
Les sports d'hiver	Winter sports

11.5.2 Qu'est-ce que tu veux faire là-bas? - What do you want to do there?	
Je voudrais	I would like
Je veux	I want
Découvrir	To discover
Essayer	To try
La nourriture locale	Local food
Les fêtes traditionnelles	Traditional festivals

11.4.2 Qu'est-ce que tu as acheté récemment? - What have you bought recently?			
J'ai acheté/voulu...	I bought/wanted...	**Un jogging**	A tracksuit
J'ai oublié	I forgot	**Un ballon**	A football
J'ai dû	I had to	**Du maquillage**	Make up
Une gourde	A flask/water bottle	**Le choix**	Choice
Un cadeau d'anniversaire	A birthday present	**Fermé**	Closed

Unit 12 : The World Around Us

12.1.1 Quels sont les problèmes avec l'environnement dans ta région? - What are the environmental problems in your local area?	
Les problèmes	The problems
Grave(s)	Serious
Il y a/Il n'y a pas	There is/are/There isn't/aren't
La pollution de l'air/ de l'eau	Air pollution/ water pollution
Trop de...	Too many/too much...
Assez de...	Enough...
Pollué(e)	Polluted
Les déchets (m)/les ordures (f)	Litter/rubbish
Par terre/dans la mer/dans les rivières	On the ground/ in the sea/ in the rivers
Les espaces verts/ les sites naturels	Green spaces/ natural areas
Mauvais pour les animaux	Bad for the animals
Un sac en plastique	A plastic bag
Le gaz d'échappement	Exhaust fumes
La circulation	Traffic
Les usines	Factories
Le gaz carbonique	Carbon dioxide
C'est une catastrophe!	It's a catastrophe!

12.1.2 Qu'est-ce qu'on peut faire pour protéger l'environnement? - What can we do to protect the environment?	
Nous pouvons/On peut	We can
Nous devrions/on devrait	We should
Il faut	It's necessary to (we must)
Il ne faut pas	We must not
Recycler	(to) recycle
Utiliser	(to) use
Acheter	(to) buy
Protéger	(to) protect
Économiser	(to) save
Les produits écologiques	Eco-friendly products
Du verre	Glass
Du papier	Paper
Une bouteille	A bottle
Une boîte	A can/a box
La poubelle	The bin

12.1.3 Quand tu étais petit(e), faisais-tu plus ou moins pour protéger l'environnement? - When you were little did you do more or less to protect the environment?	
Quand j'étais petit(e)	When I was little
J'étais plus/moins écologique	I was more/less environmentally friendly
Que maintenant	Than now
Je faisais beaucoup	I used to do a lot
Je ne faisais rien	I didn't to do anything
J'allais à pied/ à vélo	I used to walk /go by bike
J'économisais	I used to save
Je (ne) recyclais (pas)	I used to/didn't use to recycle
Une gourde	A flask/water bottle
Réutilisable	Reusable
J'utilise	I use
Je recycle	I recycle

Unit 12 : The World Around Us

12.2.1 Quels droits ont les enfants dans le monde? - What rights do children have in the world?	
Le droit	The right
J'ai le droit de...	I have the right to...
Je n'ai pas le droit de...	I don't have the right to...
Les enfants ont le droit de...	Children have the right to...
Les enfants n'ont pas le droit de...	Children don't have the right to...
Avoir une identité/une nationalité	To have an identity/nationality
Avoir une famille	To have a family
Avoir accès à l'eau	To have access to water
Manger	To eat
Aller à l'école	To go to school
Être protégé(e)(s)	To be protected
Être soigné(e)(s)	To be cared for
Aimer	To love
Sortir	To go out
C'est juste/ injuste/ essentiel	It's fair/unfair/essential

12.2.2 Qu'est-ce que tu veux faire à l'avenir? - What do you want to do in the future?	
Je (ne) veux (pas)	I (don't) want
J'ai l'intention de/d'...	I have the intention of.../I intend to...
Étudier à l'université	To study at university
Combattre l'injustice	To fight injustice
Aider les autres	To help others
Faire du travail bénévole	To do volunteer work

12.3.1 Comment pouvons-nous/peut-on aider les autres - How can we help others?	
Nous pouvons/on peut (+ Infinitive)	We can
Être sympa à tous	To be nice to everyone
Collecter des fonds (pour)	To fundraise (for)
Donner	To give/donate
Faire du travail bénévole	To volunteer
Sensibiliser le public	To raise awareness
Organiser un événement	To organise an event
Une association caritative	A charity
L'argent	Money
Les vêtements	Clothes

12.3.2 Comment veux-tu aider à l'avenir? - How do you want to help in the future?	
Je veux /voudrais	I want /would like
C'est enrichissant/important	It's enriching/rewarding/important
Une cause noble/essentielle	A worthy/essential cause
Les SDF	Homeless
Une banque alimentaire	A food bank
Un refuge pour animaux	An animal shelter
Pauvre(s)	Poor

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Year 9

Spanish

Heart - Ambition - Respect - Tenacity

Unit 9 - Relationships

9.1.1 Describe tu familia - Describe your family	
Mi padre/ mi padrastro	My dad/stepdad
Mi madre/mi madrastra	My mum/stepmum
Mi hermana/o mayor	My older sister/brother
Mi hermana/o menor	My younger sister/brother
Mi media/o hermana/o	My half sister/brother
Mis padres	My parents
Mis abuelos	My grandparents
Tiene(n) el pelo ...	S/he has (they have)... hair
Tiene(n) ... años	S/he is (they are)... years old
Es...	S/he is...
Son...	They are...

9.1.2 ¿Te llevas bien con tu familia? - Do you get on well with your family?	
Me llevo bien con...	I get on well with...
No me llevo bien con.../Me llevo mal con...	I don't get on well with...
Salimos	We go out
Discutimos	We argue
Compartimos	We share
Nos peleamos	We argue/fight
Tenemos mucho en común	We have lots in common
No tenemos nada en común	We have nothing in common
Me fastidia	S/he annoys me
Me hace reír	S/he makes me laugh
Juntos	Together

9.2.1 ¿Qué haces y cuándo? - What do you do and when?	
Juego	I play
Juego al baloncesto/ Juego en el parque	I play basketball/I play in the park
Hago	Literally: I do/ make(many expressions need hacer)
Hago natación/Hago escalada/Hago ejercicio	I swim – I go swimming/I climb/I exercise
Voy	I go
Voy al centro/Voy a una fiesta/Voy de paseo	I go to town/I go to a party/I go for a walk
Salgo	I go out
Me quedo en mi habitación	I stay in my room
Toco + instrumento	I play an instrument
Toco la guitarra/Toco la batería	I play the guitar/I play the drums

9.2.2 ¿Qué hace tu hermano/a? - What does your brother/sister do at the weekend?	
Juega	S/he plays
Hace	Literally: I do/make(many expressions need hacer)
Hace deporte/Hace sus deberes	S/he does sport/S/he does his/her homework
Va	S/he goes
Sale	S/he goes out
Se queda en su habitación	S/he stays in his/her room
Se entrena	S/he trains
A... le gusta (+ infinitive)...	S/he likes (to...)
Es aficionado/a de ...	S/he is a fan of...
Juegan ...	They play...
Hacen...	They do...
Somos muy diferentes	We are very different
Tenemos gustos similares	We have similar likes/interests
Su/sus (agrees with the object)	Her/his (su = his or her singular, sus = his or her plural)

Unit 9 - Relationships

9.3.1 ¿Cómo sería tu pareja ideal? - What would your ideal partner be like?	
¿Te gustaría casarte o tener una familia?	Would you like to get married or have a family?
Mi novia/o ideal	My ideal boyfriend/girlfriend
(No) sería...	S/he would (not) be...
Tendría...	S/he would have...
Le gustaría	S/he would like...
Me gustaría	I would like
Casarse	To get married
Separarse	To separate
Divorciarse	To divorce
Enamorarse	To fall in love
Estar comprometido/a	To get engaged
Vivir juntos	To live together
El matrimonio	Marriage
La boda	Wedding
Soltero/a	Single
La libertad	Freedom

9.4.1 ¿Qué hiciste el fin de semana pasado? - What did you do last weekend?	
Tuve que (+ infinitive)	I had to...
Quería (+ infinitive)	I wanted to...
Era/fue...	It was...
Me divertí mucho	I enjoyed myself
Hacía/hizo calor/frío	It was hot/cold
Llovía/llovió	It rained

9.4.2 ¿Qué hacías cuando eras pequeña/o? - What did you used to do when you were little?	
Cuando era pequeña/o	When I was little
Lo que más me gustaba era	The thing I liked the most was...
Me gustaba (+infinitive)	I liked to ... /I used to like to...
Me encantaba (+infinitive)	I loved to.../I used to love to...
No soportaba (+ infinitive)	I could not stand...

9.3.2 En tu opinión ¿Qué es un buen amigo? - In your opinion, what is a good friend? (see Exercise Book for adjectives)	
Un buen amigo/una buena amiga es...	A good friend is...
Me hace reír	Makes me laugh
Me hace feliz	Makes me happy
Me ayuda con mis problemas	Helps me with problems
Me acepta	Accepts me
Me entiende	Understands me
Comparte todo	Shares everything
La amistad	Friendship
Comprensiva/o	Understanding

9.3.3 ¿Cuáles son tus planes para el fin de semana? - What are your plans for the weekend?	
Voy a (+ infinitive)	I am going to (+verb/activity)
Voy a salir de fiesta	I am going to go partying
Va a (+ infinitive)	S/he is going
Vamos a (+ infinitive)	We are going
Van a (+ infinitive)	They are going
Espero (+ infinitive)	I hope
Va a ser	It's going to be
Será	It will be
Como siempre	As usual

Unit 10 - Festivals And Celebrations

10.1.1 La comida - Food	
El desayuno	Breakfast
Desayunar	To eat/have breakfast
El almuerzo/la comida	Lunch
La merienda merendar	Afternoon snack
La cena	Dinner/tea
Cenar	To eat /have dinner
Como/Tomo	I eat/I take
Tomo cereales con leche	I take cereals with milk
Una dieta equilibrada	A balanced diet
Comer sano	To eat healthily
La comida grasosa/ grasa	Fatty food
Una comida	A meal
Comida para llevar	Takeaway food
La carne	Meat
Una comida vegetariana/vegana	A vegetarian/vegan meal
Las verduras	Vegetables
El arroz	Rice
La pasta (en salsa de tomate)	Pasta (in a tomato sauce)
El pescado (el atún/el salmón)	Fish (tuna/salmon)
Alrededor del mediodía/ de las seis	At about midday/At about 18:00
Mi plato preferido	My favourite dish
Al volver a casa	When returning home...
Me levanto y luego...	I get up and then...
Juntos en familia	Together as a family

10.1.2 La variedad de la cocina hispánica	
La cocina tradicional	Traditional food/dishes
Una especialidad	A speciality
En América Central	In Central America
En Sudamérica	In South America
El plato nacional	The national dish
Similar a	Similar to
Picante	Spicy
El ajo	Garlic
El maíz	Corn
Los mariscos	Shellfish
Relleno/a de...	Filled with...
En comparación con...	Compared with...

10.2.1 ¿Qué celebraciones se celebran en España/en países de habla hispana? - Which festivals/celebrations are celebrated in Spain/Spanish speaking countries?	
Celebramos...	We/One celebrates...
La Nochevieja	New Year's Eve
El Año Nuevo	New Year's Day
La Navidad	Christmas
La Pascua/la Semana Santa	Easter
El día de la madre	Mothers' Day
El Día de los Muertos	Day of the dead (celebrated in Mexico)
Los Sanfermines	Festival with the running of the bulls
Las Fallas de Valencia	Traditional celebration in Valencia every year
La feria de Abril de Sevilla	April festival of Seville
Un desfile/una procesión	A parade
Los fuegos artificiales	Fireworks
Los regalos	Presents
La tarta de cumpleaños	Birthday cake

Unit 10 - Festivals And Celebrations

10.2.2 Háblame sobre una fiesta que celebraste - Tell me about a past festival/celebration	
El año pasado	Last year
Hace dos meses/un año	Two months/ a year ago
Celebré.../Celebramos...	I celebrated/ we celebrated
Hice/hicimos una tarta de cumpleaños	I made a cake/He/she made a cake
... me compró...	... (s/he) bought me a...
Bailé	I danced
Invité a mis amigos a mi casa	I invited my friends to my house
Organicé una fiesta	I organised a party
Participé	I participated in...
Llevé un disfraz	I wore fancy dress
Fui	I went...
Fue + adjective	It was + adjective
Toda la noche/ todo el día	All night/day
Me divertí mucho	I enjoyed myself
Lo pasé/pasamos genial/ fenomenal/bomba	I/we had a great time

10.2.3 ¿Qué festival/qué fiesta te gustaría visitar y por qué? - What festival would you like to visit?	
(No) me gustaría (+ infinitve)	I would (not) like
Me encantaría (+ infinitve)	I would love
Parece + adjective	It seems + adjective
Parece emocionante	It seems exciting
Me interesa la cultura	I'm interested in culture
Me interesan las tradiciones	I'm interested in traditions
(No) soy religiosa/o	I am (not) religious

10.3 ¿Cómo se compara con las tradiciones de su país? - How does it compare?	
En comparación con...	In comparison to...
Que	Than
Que en España/México	Than in Spain/Mexico
Than in Spain/Mexico	It seems exciting
Es más...	It's more...
Es menos...	It's less...
Mientras que	Whereas
Ponemos/ ponen	We put/they put
Tenemos/ tienen	We have/they have
Comemos/Comen	We eat/they eat
Hacemos/ hacen	We do/they do
Celebramos/celebran	We celebrate/they celebrate

10.4 ¿Qué hay en la foto? - What is there in the photo?	
En la foto hay	In the photo there is/are
Puedo ver	I can see
Una familia/algunas personas/ jóvenes/niños	A family/ some people/young people/ children
Un hombre/ una mujer/un chico/una chica	A man/a woman/a boy/a girl
Al aire libre/dentro	Outside/indoors
Los turistas	Tourists
Parece...(feliz/triste)	S/he seems... (happy/sad)
Parecen (felices/tristes)	They seem... (happy/sad)
Los edificios (modernos/viejos)	Some (modern/old) buildings
Un lago/ una montaña/ un jardín	A lake/ a mountain/ a garden
Hace sol	It's sunny
Hace buen/mal tiempo	It's nice/bad weather
Habla/discute/juega/trabaja/ camina/come	S/he is speaking/ is arguing/is playing/is working/is walking/ is eating
Hablan/discuten/ juegan/ trabajan/caminan/comen	They are speaking/arguing/ playing/working/walking/ eating
Lleva (una camiseta/un jersey/ un vestido/vaqueros/ zapatillas/gafas)	S/he is wearing (a T-shirt/a jumper/a dress/jeans/trainers/ glasses)
A la izquierda/a la derecha	On the left/on the right
En primer plano	In the foreground
Al fondo	In the background

Unit 11: City Or Region In A TL Country

11.1.2 ¿Qué se puede hacer en tu región? - What can you do in your area?	
Hay mucho que hacer	There is lots to do
No hay nada que hacer	There is nothing to do
(No) se puede (+ infinitive)	You/one can (not)
En invierno	In winter
En verano	In summer

11.1.3 Mi región antes - My area before	
Antes	Before
En el pasado	In the past
Había	There was/were or there used to be
Estaba/era	It was/used to be
Más (+ adjective)	More
Menos (+ adjective)	Less/fewer

11.3.2 ¿Dónde te gustaría vivir en el futuro? - Where would you like to live in the future?	
(No) me gustaría/Me encantaría (+ infinitive)	I would (not) like to/ I would love to (+ verb)
En algún lugar (en Francia/en España/en Australia)	Somewhere (in France, in Spain, in Australia)
Un país cálido	A hot country
Un país de habla hispana	A Spanish speaking country
Soy fan de...	I am a fan of
Me entusiasma...	I love/am excited by ...
Los deportes de invierno	Winter sports
La comida	The food
El modo de vida	The way of life
La gente es... (people in Spanish is singular!)	People are
Lejos de	Far (away) from
Cerca de	Close to

11.4.1¿Qué quieres comprar? - What do you want to buy?	
Quiero comprar	I want to buy
¿Cuánto cuesta?	How much does it cost?
Cuesta...	It costs...
¿De qué color?	Which colour?
Un recuerdo	A souvenir
Un regalo	A present

11.4.2¿Qué compraste recientemente? - What have you bought recently?	
Compré...	I bought...
Fui a las tiendas/ Fui de compras.	I went to the shops/shopping.
Quise/quería	I wanted
Esperaba	I hoped/was hoping to
Olvidé	I forgot
Tuve que (+ infinitive)	I had to...
Un regalo de cumpleaños	A birthday present
El vendedor/La vendedora	Shop assistant
Cerrado/a	Closed

11.5.1¿Qué país de habla hispana te gustaría visitar? - Which Spanish speaking country would you like to visit?	
Me gustaría visitar...	I would like to visit...
Me encantaría visitar...	I would love to visit...
Visitaría...	I would visit...
Haría ...	I would do...
La cultura sudamericana	South American culture
Las ciudades antiguas	Ancient cities
La selva	The jungle
Las montañas	The mountains
Las playas tropicales	Tropical beaches

11.5.2 Los países de habla hispana – ¿Qué quieres hacer allí? - What do you want to do there?	
Quiero (+ infinitive)	I want to (+ verb)
Quisiera/me gustaría (+ infinitive)	I would like to (+ verb)
Descubrir	To discover
Ver	To see
Probar	To try
La comida típica	Local food
Los festivales	Festivals

Unit 12: The World Around Us

12.1.1 ¿Qué problemas medioambientales hay en...? - What environmental problems are there in...?	
(No) hay	There is/are (no)
Tráfico (el)	Traffic
Bolsa de plástico (la)	Plastic bag
Ruido (el)	Noise
Basura (la)	Rubbish
Polución(del aire/del agua) (la)	Pollution
Contaminación (del aire/ de la agua) (la)	Contamination
Espacios verdes (los)	Green areas
No es sostenible	It is not sustainable
Es un desastre	It is a disaster/ a catastrophe

12.1.2 ¿Qué se puede/debería hacer? - What can/should we do/be done?	
Se puede/podemos (+ infinitive)	We can ...
Se debería (+ infinitive)	We should ...
Usar	Use
Reciclar	Recycle
Reusar	Reuse
Reducir el consumo de	Reduce the consumption of
Ahorrar	Save (as in save up, not to rescue or salvage)
Apagar la luz	Turn the light off
Desenchufar los aparatos eléctricos	Unplug electrical devices
El transporte público	Public transport
Menos	Less
Agua	Water
Una bolsa de plástico	A plastic bag
La energía	Energy
La basura	Rubbish
Las latas	Tins
Las botellas	Bottles
El vidrio	Glass

12.1.3 Cuando eras pequeña/o, ¿hacías más o menos para proteger el medio ambiente? - When you were little did you do more or less to protect the environment?	
Cuando era pequeña/o	When I was little
Antes	Before (in the past)
Era más/menos ecológica/o	I was more/less environmentally friendly
Que ahora	Than now
Hacía mucho - Hago	I used to do a lot – I do
No hacía nada	I didn't used to do anything
Iba a pie – Voy a pie	I used to walk – I walk
Ahorraba - Ahorro	I used to save – I save
(No) reciclaba - Reciclo	I used to/didn't used to recycle – I recycle
Reutilizable	Reusable

Unit 12: The World Around Us

12.2.1 ¿Qué derechos tienen los niños? - What rights do children have?	
El derecho	The right
(No) tengo derecho a...	I (do not) have the right to...
Los niños (no) tienen derecho a...	Children (do not) have the right to...
Tener una identidad	To have an identity
Tener una nacionalidad	To have a nationality
Tener una familia	To have a family
Tener acceso al agua	To have access to water
Comer	To eat
Ir al colegio	To go to school
Ser atendido/a (s)	To be cared for
Salir	To go out
Es justo	It's fair
Es injusto	It's unfair
Es esencial	It's essential

12.2.2 ¿Qué quieres hacer en el futuro? - What do you want to do in the future?	
(No) quiero	I (don't) want
Tengo la intención de ...	I have the intention of...
Quiere	S\he wants
Quieren	They want
Estudiar en la universidad	To study at university
Luchar contra la injusticia	To fight injustice
Ayudar a los demás	To help others
Trabajar de voluntaria/o	To do volunteer work
En el futuro	In the future
Me parece	It seems to me

12.3.1 ¿Cómo se puede ayudar a los demás? - How can we help others?	
Podemos/se puede (+ infinitive)	We can
Ser amable con todos	To be nice to everyone
Dar dinero	To give/donate money
Dar ropa	To give/donate clothes
Trabajar de voluntaria/o	To volunteer
Educar a la gente	To raise awareness
Organizar un evento	To organise an event
Una tienda benéfica	A charity shop
Las personas sin hogar = los sintecho	Homeless people

12.3.2 ¿Cómo quieres ayudar en el futuro? - How do you want to help in the future?	
Quiero	I want
Me gustaría	I would like
Cuando sea mayor	When I am older
Recaudar fondos	To fundraise
Un refugio de animales	An animal shelter
Una causa noble	A worthy cause
Una causa importante	An important cause
Una asociación de ayuda (al refugiado, a los animales, a la infancia)	A charity (for refugees, animals, children)

Hartshill Academy
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Year 9

Music

Heart - Ambition - Respect - Tenacity

Film Music

Year 9 - Music

Some film **SOUNDTRACKS** include specially composed **SCORES**, either for orchestra (e.g. composers like John Williams, Ennio Morricone) or songs written especially for the film (e.g. Disney films). Other films use pre-existing music e.g. popular songs from the era/place in which the film is set.

STRINGS
- Violin
- Cello
- Viola
- Double bass
- Harp

BRASS
- Trumpet
- Trombone
- French horn
- Tuba

PERCUSSION
- Bass drum
- Snare drum
- Triangle
- Cymbal
- Drum kit (untuned)
- Timpani
- Glockenspiel
- Xylophone (tuned)

WOODWIND
- Flute
- Clarinet
- Oboe
- Bassoon
- Saxophone

KEYBOARDS
- Piano
- Electronic keyboard
- Harpsichord
- Organ
- Synthesizer

OTHER
- Electric guitar
- Bass guitar
- Spanish/ classical guitar
- Traditional world instruments

Musical elements

Film composers use the **MUSICAL ELEMENTS** (tempo, texture, dynamics, timbre, tonality, rhythm, melody, harmony) to create mood and atmosphere to help to tell the story and enhance the action.

For example:
In a **sad, reflective scene**, a composer might use slow tempo, minor tonality, soft dynamics, legato, homophonic texture, long sustained notes, and a conjunct melody.

An **exciting car chase scene** in a thriller might have a fast tempo, busy, polyphonic texture, dissonant chords, loud dynamics, syncopated rhythms, a disjunct melody and short riffs.

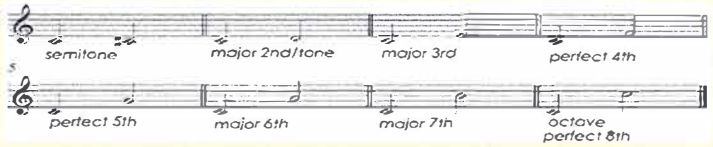
A scene where the **superhero 'saves the day'** might use a major tonality, brass fanfares, loud dynamics, accents, 4th and 5th (intervals).

Composers will often use **CONTRASTS** to create effect (e.g. using a wide range of pitch from very high to very low).

Intervals

Film composers often use intervals to create a particular effect (e.g. a rising perfect 4th sounds 'heroic', and a semitone can sound 'menacing').

An **interval** is the distance between two notes.



Rising interval: moving upwards (ascending)
Falling interval: moving downwards (descending)

Specific instrumental terms

Pizzicato	Plucking the strings.
Divisi	Two parts sharing the same musical line.
Double stopping	Playing two strings at the same time.
Arco	Using a bow to play a stringed instrument.
Tremolo	A 'trembling' effect, moving rapidly on the same note or between two chords (e.g. using the bow rapidly back and forth).
Tongued	A technique to make the notes sound separated (woodwind/brass).
Slurred	Notes are played smoothly.
Muted	Using a mute to change/dampen the sound (brass/strings).
Drum roll	Notes/beats in rapid succession.
Glissando	A rapid glide over the notes.
Trill	Alternating rapidly between two notes.
Vibrato	Making the notes 'wobble' up and down for expression.

Composers also use:

Theme	The main tune/melody.
Motif	A short musical idea (melodic or rhythmic).
Leitmotif	A recurring musical idea linked to a character/object or place (e.g. Darth Vader's motif in Star Wars).
Underscoring	Music playing underneath the dialogue.
Scalic	Melody follows the notes of a scale.
Triadic	Melody moves around the notes of a triad.
Fanfare	Short tune often played by brass instruments, to announce someone/something important; based on the pitches of a chord.
Pedal note	A long, sustained note, usually in the bass/ lower notes.
Ostinato/riff	A short, repeated pattern.
Conjunct	The melody moves by step.
Disjunct	The melody moves with leaps/intervals.
Consonant harmony	Sounds 'good' together.
Dissonant harmony	Sounds 'clashy'.
Chromatic harmony	Uses lots of semitones/accidentals that's not in the home key.
Minimalism	A style of music using repetition of short phrases which change gradually over time.