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Year 7

Knowledge Organiser

Mid Assessments

will take place from

Thursday 8th January to Thursday 22nd January

Heart - Ambition - Respect - Tenacity

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ENGLISH

MUSIC

MATHS

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FOOD TECHNOLOGY

FRENCH

GEOGRAPHY

SPANISH

HISTORY



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English

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Knowledge Organiser: Genre Specific Vocabulary

1. **Archetypal hero:** A typical brave and selfless hero.
2. **Bildungsroman:** A story about growing up and maturing.
3. **Cliffhanger:** An ending that leaves the reader in suspense.
4. **Magical realism:** A mix of magical elements in a realistic setting.
5. **Myth:** A traditional story with supernatural parts.
6. **Quest narrative:** A story about a journey to reach a goal.
7. **Redemptive arc:** A storyline where a character seeks forgiveness.
8. **Aboriginal:** The first or native people of a land.
9. **Banished:** Forced to leave a place as punishment.
10. **Cartographer:** A person who makes maps.
11. **Coercive:** Using force or threats to make someone obey.
12. **Colonialism:** Control of one country by another for power or resources.
13. **Governor:** A leader of a state, colony, or region.
14. **Moral development:** Growth in knowing right from wrong.
15. **Naïve:** Innocent or lacking experience.
16. **Privilege:** Special rights or advantages given to some people.
17. **Redemption:** Gaining forgiveness or making up for mistakes.
18. **Ruthless:** Having no pity; cruel.
19. **Subjugated:** Forced under control or power of others.
20. **Tyrant:** A cruel and unfair ruler.

Knowledge Organiser: Subject Vocabulary

1. **Noun:** A person, place, thing, or idea.
2. **Pronoun:** A word that replaces a noun.
3. **Adjective:** A word that describes a noun.
4. **Adverb:** A word that modifies a verb, adjective, or other adverb.
5. **Clause:** A group of words with a subject and a verb.
6. **Main clause:** A clause that can stand alone as a sentence.

7. **Independent clause:** A part of a sentence that makes sense on its own.
8. **Subordinate clause:** A clause that cannot stand alone as a sentence.
9. **Simple sentence:** A sentence with one main clause.
10. **Compound sentence:** A sentence with two main parts joined by "and," "but," or similar.
11. **Complex sentence:** A sentence with one independent clause and at least one subordinate clause.
12. **Colon:** A punctuation mark used to introduce a list or explanation.
13. **Semi-colon:** A punctuation mark used to link main clauses.
14. **Dash:** A punctuation mark used to indicate a break or pause.
15. **Protagonist:** The main character in a story.
16. **Antagonist:** A character who opposes the protagonist.
17. **Secondary character:** A supporting character.
18. **Archetype:** A typical example of a character or situation.
19. **Character arc:** How a character changes through a story.
20. **Characterisation:** The process of creating and developing characters.
21. **Explicit characterisation:** Character traits stated directly by the narrator.
22. **Implicit characterisation:** Character traits revealed indirectly through actions or dialogue.
23. **Internal monologue:** A character's private thoughts shown in the story.
24. **Narrative:** A spoken or written account of events.
25. **Narrative arc:** The overall path of the story, from beginning to end.
26. **Narrative voice:** The way a story is told (who is speaking and how).

- 27.**First person:** Narration using "I" or "we."
- 28.**Perspective:** The point of view of the story.
- 29.**Pace:** The speed at which a story progresses.
- 30.**Focus shift:** A change in the focus of the narrative.
- 31.**Mystery:** A story about solving a puzzle or crime.
- 32.**Genre:** A category or type of story, like horror or comedy.
- 33.**Gender expectations:** Beliefs about how men and women should behave.
- 34.**Symbolism:** Using symbols to represent ideas.
- 35.**Metaphor:** A figure of speech that compares two unlike things by saying one is the other.
- 36.**Extended metaphor:** A metaphor that continues throughout a passage.
- 37.**Motif:** A repeated idea, image, or symbol in a story.
- 38.**Imagery:** Descriptive language that appeals to the senses.
- 39.**Sensory language:** Words that appeal to the senses.
- 40.**Dialogue:** Conversation between characters.
- 41.**Foreshadowing:** Hints about what will happen later.
- 42.**Foreboding:** A feeling that something bad will happen.
- 43.**Juxtaposition:** Placing two elements side by side for contrast.
- 44.**Focus shift:** A change in attention or subject in the text.
- 45.**Shift:** A change in tone, mood, or focus.
- 46.**Withholding information:** Keeping details back to create interest or suspense.



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Year 7

Maths

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KPI 7.01 Numerical Skills																								
1) Place Value	The value of a digit relating to its position in a number. In 1482 the digits represent 1 thousand, 4 hundreds, 8 tens and 2 ones.	2) Integer	Whole numbers including zero. -2, -1, 0, 1, 2, 3 ...																					
3) Decimal	A number with a decimal point in it. It can be positive or negative. 0.3, 1.26, -3.4 etc.	4) Positive Number	Any number above zero. 1, 2, 3, 4 ...																					
5) Negative Number	Any number below zero. Always written with a negative sign in front of it: -1, -2, -3 ...	6) Zero Place Holder	A zero that is used as a place holder to denote the absence of a powerof 10 E.g. 506 has no tens so there is a 0 in the tens column.																					
7) Even Number	Any integer that can be divided by 2 without leaving a remainder. 2, 4, 6, 8, 10 ...	8) Odd Number	Any integer that cannot be divided by 2 without leaving a remainder. 1, 3, 5, 7, 9 ...																					
9) Square Number	The result of multiplying a number by itself. It will always be positive. 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144 ...	10) Square Root	The opposite of squaring a number to find the original factor. E.g. $\sqrt{9} = 3$ or -3																					
11) Inequality	When one number, or quantity, is not equal to another. $a < b$ a is less than b $a > b$ a is greater than b $a = b$ a is equal to b $a \neq b$ a is not equal to b	12) Ascending	Smallest to largest.																					
		13) Descending	Largest to smallest.																					
14) Decimal Place Value	The value of each digit after the decimal point. Tenth, hundredth, thousandth etc.	17) Rounding	<table><tr><th>Round to</th><th>Circle, Underline, Decide</th><th>Answer</th></tr><tr><td>Nearest 1000</td><td>5 <u>7</u> 8 3 . 1 9 9</td><td>≈ 6000</td></tr><tr><td>Nearest 100</td><td>5 7 <u>8</u> 3 . 1 9 9</td><td>≈ 5800</td></tr><tr><td>Nearest 10</td><td>5 7 8 <u>3</u> . 1 9 9</td><td>≈ 5780</td></tr><tr><td>Nearest integer</td><td>5 7 8 <u>3</u> . <u>1</u> 9 9</td><td>≈ 5783</td></tr><tr><td>1 d.p.</td><td>5 7 8 3 . <u>1</u> 9 9</td><td>≈ 5783.2</td></tr><tr><td>2 d.p.</td><td>5 7 8 3 . 1 <u>9</u> <u>9</u></td><td>≈ 5783.20</td></tr></table>	Round to	Circle, Underline, Decide	Answer	Nearest 1000	5 <u>7</u> 8 3 . 1 9 9	≈ 6000	Nearest 100	5 7 <u>8</u> 3 . 1 9 9	≈ 5800	Nearest 10	5 7 8 <u>3</u> . 1 9 9	≈ 5780	Nearest integer	5 7 8 <u>3</u> . <u>1</u> 9 9	≈ 5783	1 d.p.	5 7 8 3 . <u>1</u> 9 9	≈ 5783.2	2 d.p.	5 7 8 3 . 1 <u>9</u> <u>9</u>	≈ 5783.20
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15) Decimal Places	The number of digits after the decimal point. E.g.14.278 has 3 decimal places.																							
16) Estimate	Find a rough or approximate answer by rounding. e.g. $2.3 \times 18.4 \approx 2 \times 20 = 40$ \approx 'approximately equal to'																							

KPI 7.02 Order of Operations

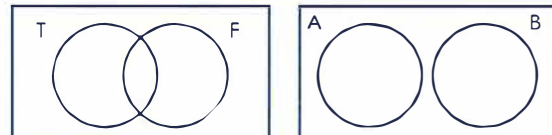
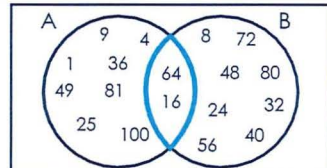
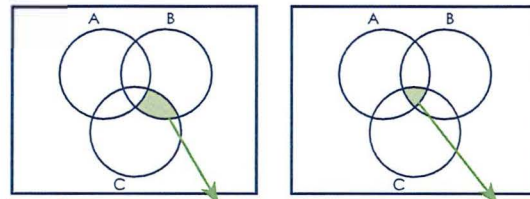
1) Operation	A rule for combining numbers + - × ÷	2) Evaluate	To work out the value of.
3) Index Notation	The index tells us how many times the base is being multiplied by itself. The plural of index is indices.		
4) Order of Operations	B = Brackets I = Indices and Roots DM = Division and Multiplication AS = Addition and Subtraction		
	If we have a calculation with addition or subtraction only then we calculate from left to right. <div>18 - 10 + 2 8 + 2 10</div>	If we have a calculation with multiplication or division only then go from left to right. <div>8 × 5 ÷ 4 × 10 8 × 5 ÷ 4 × 10 40 ÷ 4 × 10 10 × 10 = 100</div>	

KPI 7.03 Introduction to Algebra

1) $2a$	$2 \times a$	2) ab	$a \times b$
3) a^2	$a \times a$	4) $3a^2$	$3 \times a \times a$
5) a subtracted from b	$b - a$	6) a less than b	$b - a$
7) a subtract b	$a - b$	8) a reduced by b	$a - b$
9) a divided by b	$\frac{a}{b}$	10) b divided by a	$\frac{b}{a}$
11) 4 times smaller than a	$\frac{a}{4}$	12) 4 times larger than a	$4 \times a \rightarrow 4a$
13) 5th power of a	a^5	14) Variable	A letter used to represent any number.
15) Coefficient	The number to the left of the variable. This is the value that we multiply the variable by. $4x \rightarrow$ The coefficient of x is 4. $x \rightarrow$ The coefficient of x is 1.	16) Term	A single number, variable or numbers and variables multiplied together.
17) Expression	A mathematical statement which contains one or more terms combined with addition and/or subtraction signs. E.g. $4x + 3y$.	18) Collecting like terms	Combining the like terms in an expression. $7x + 3y - 2x$ is simplified to $5x + 3y$.
19) Substitute	Replace a variable with a given value. E.g. if $b = 10$, $2b = 2 \times 10 = 20$ $b - 2 = 10 - 2 = 8$	20) Rearrange	Alter the position of variables using the 4 operations. $5 = \frac{a}{t}$ $t = \frac{a}{5}$ $a = 5 \times t$

KPI 7.04 Primes, Factors and Multiples

1) Factor	Any whole number that divides exactly into another number leaving no remainder is a factor. Factors of 20 are: 1, 2, 4, 5, 10, 20	2) Multiple	The result of multiplying a number with a whole number (all times tables!). The multiples of 7: 7, 14, 21, 28, 35, 42, 49, 56, 63, 70 ...
3) Highest Common Factor (HCF)	The HCF of 2 or more numbers is the largest number that is a factor of each of those numbers. E.g. HCF of 18 and 45 = 9 18: 1, 2, 3, 6, 9 , 18 45: 1, 3, 5, 9 , 15, 45	4) Lowest Common Multiple (LCM)	The LCM of 2 or more numbers is the smallest number that is a multiple of each of those numbers. E.g. LCM of 6 and 8 = 24 6: 6, 12, 18, 24 , 30, 36, 42, 48, 54, 60 8: 8, 16, 24 , 32, 40, 48, 56, 64, 72, 80
5) Prime Numbers	A prime number only has two distinct factors: 1 and itself. 2 is the only even prime number. 1 is not a prime number. Prime numbers between 1 and 100 are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97		

6) Venn Diagrams	These were created by an English Mathematician, John Venn (1834 – 1923). They are used to sort groups of data and consist of two or more circles, often overlapping, contained inside a rectangle.	
7) One Intersection	In a Venn diagram with 2 circles, an overlap represents a section where elements (E.g. numbers) lie in both sets (E.g. A and B). The overlap between the sets, is called the intersection. E.g. A = First ten square numbers B = First ten multiples of 8	<p>16 and 64 are in the intersection as they are in both sets.</p> 
8) Multiple Intersections	If a Venn diagram is representing three sets, it will have three circles. Each circle will <u>often</u> overlap with another data set twice, with all three circles overlapping at the centre.	


KPI 7.05 Expanding and Factorising 1

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. $6x^2 + 9x = 3x(2x + 3)$
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KPI 7.06 Addition and Subtraction

1) Addition Plus, add, sum, more than.	To find the total of two or more numbers. The inverse operation is subtraction.	$\begin{array}{r} 1.38 \\ 4.90 + \\ \hline 6.28 \\ \hline \end{array}$	2) Subtraction Subtract, minus, take away, less than.	To find the difference between two numbers. The inverse operation is addition.	$\begin{array}{r} 8.1 \\ 4.90 \\ 1.38 - \\ \hline 3.52 \\ \hline \end{array}$																
3) Commutative	Addition is commutative – the order of addition does not change the result. Subtraction is not commutative.		4) Associative	When you add you can do so regardless of how the numbers are grouped. Subtraction is not associative.																	
5) Two-way Table	A visual representation of the possible relationships between two sets of categorical data. You can add and subtract values horizontally and vertically to find totals or missing values.		<table><tr><th></th><th>Child</th><th>Adult</th><th>Total</th></tr><tr><th>Male</th><td>7</td><td>9</td><td>16</td></tr><tr><th>Female</th><td>8</td><td>6</td><td>14</td></tr><tr><th>Total</th><td>15</td><td>15</td><td>30</td></tr></table> <p>The values in a row have a total at the right-hand side of the row.</p> <p>The values in a column have a total at the bottom of the column.</p>				Child	Adult	Total	Male	7	9	16	Female	8	6	14	Total	15	15	30
	Child	Adult	Total																		
Male	7	9	16																		
Female	8	6	14																		
Total	15	15	30																		

KPI 7.07 Perimeter

1) Perimeter	The total distance around the outside of a closed shape.	 <p>Perimeter = $5 + 8 + 5 + 8 = 26$ cm</p>	2) Polygon	A 2D shape which has 3 or more straight sides.
			3) Regular Polygon	A polygon where all sides are equal length, and all angles are of equal size.
			4) Irregular Polygon	A polygon where all sides are not equal and/or all angles are not equal.
			5) Units of Length	1 cm = 10mm; 1 m = 100 cm; 1 km = 1000 m

KPI 7.08 Mean

1) Average	A number expressing the central or typical value in a set of data.	2) Mean	The sum of the numbers divided by how many numbers are being averaged. E.g. Calculate the mean of 14, 6, 18, 2, 3. 1) Add the values: $14 + 6 + 18 + 2 + 3 = 43$ 2) Divide by 5 3) Mean is $\frac{43}{5} = 8.6$
3) Reversing the Mean	If we have the mean but one of the data points is missing, we can find the missing value by: 1) Multiplying the 'mean' by the number of data points to get the total of the values. 2) Subtracting the sum of the known values from the total of all values.		E.g. The mean of three numbers is 5. Two of the numbers are 3 and 10. Find the third value. Total of the values: $5 \times 3 = 15$ $15 - (3 + 10) = 2$ The third value is 2



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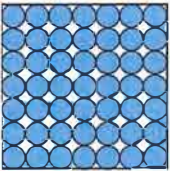
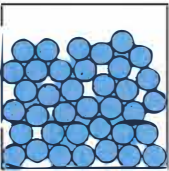
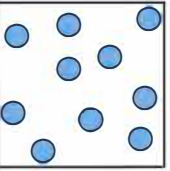
Year 7

Science

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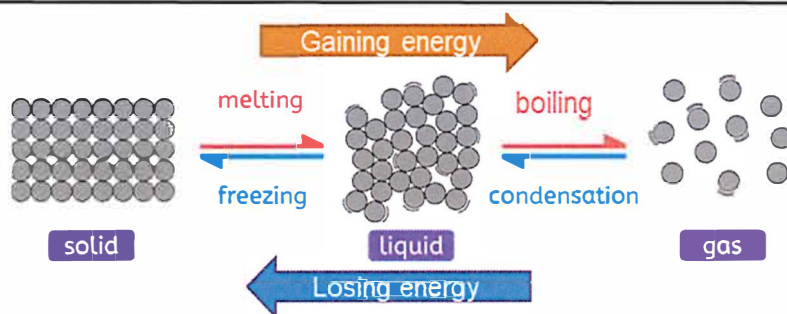
Particles, substances and mixtures

The particle model of matter

	Solid	Liquid	Gas
Diagram			
Arrangement	ordered and all touching	random and all touching	random and not touching
Movement	vibrate in fixed positions	move and slide over each other	move around quickly in random directions
Attraction between particles	strong	weak	very weak

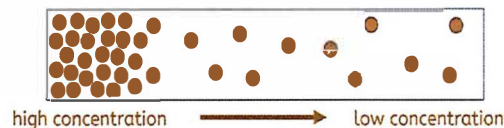
Change of state

A change of state is a physical change because no new substances are made, and the change is reversible. Only the amount of energy the particles have changes, which affects the arrangement and movement of the particles. Temperature stays constant during a change of state.



Diffusion

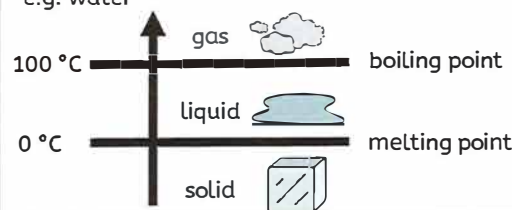
Diffusion is the random movement of particles from an area of high concentration to an area of low concentration. Particles of substances in the liquid and gas states can diffuse because their particles can move freely.



Melting and boiling points

melting point: the temperature at which a substance changes from a solid to a liquid

boiling point: the temperature at which a substance changes from a liquid to a gas, e.g. water



Explaining the properties of solids

Property	Reason
Fixed shape and cannot flow	Strong forces of attraction between the particles keep them in fixed positions.
Cannot be compressed (squashed)	Particles are all touching and have no space to move into.

Explaining the properties of liquids

Property	Reason
Takes shape of container and can flow	Weak forces of attraction between the particles, so they can move around each other.
Cannot be compressed (squashed)	Particles are all touching and have no space to move into.

Explaining the properties of gases

Property	Reason
Takes shape of container and can flow	Very weak forces of attraction between the particles, allowing them to move and spread out.
Can be compressed (squashed)	Particles are not touching and have space to move into.

Gas pressure

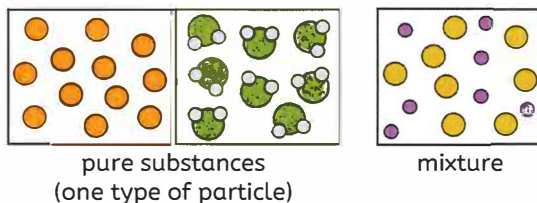
When gas particles collide with the walls of their container, this creates a constant force on the walls of the container. This causes pressure. The faster the particles move, the higher the gas pressure. The gas pressure inside containers can be increased by adding more particles or increasing the temperature. The more frequent the collisions, the higher the gas pressure.



Particles, substances and mixtures

Pure substances and mixtures

A **pure substance** is one that contains only one substance, e.g. pure iron contains only iron particles. A **mixture** contains two or more substances that are not joined together and can be physically separated.

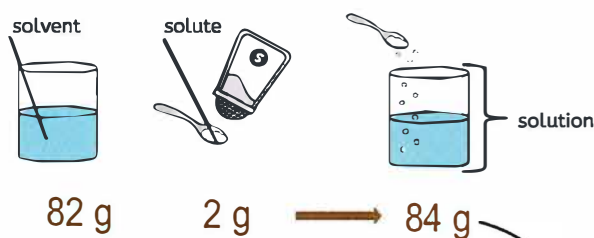


Solutions and solubility

A **solute** can be dissolved in a **solvent**. The mixture created is called a **solution**. When no more solute can dissolve in the solution, it is a **saturated** solution. If a solid dissolves in a solvent, it is **soluble**. If it does not dissolve in a solvent, it is **insoluble**. **Solubility** is a measure of how much solute can dissolve in a solvent. The higher the temperature of the solvent, the greater the mass of the solute that can be dissolved.

Solubility is different for different solutes. The solubility of a solute will change depending on the solvent used.

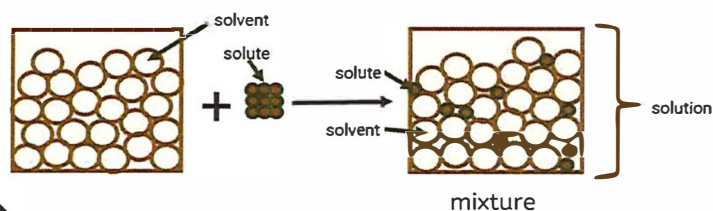
During **dissolving**, the solute particles are separated and fit between the solvent particles to make a solution.



Conservation of mass

When a solution is formed, **the mass of the solvent + the mass of the solute = the mass of the solution**.

Mass remains constant because the number of particles is the same before dissolving as it is after.

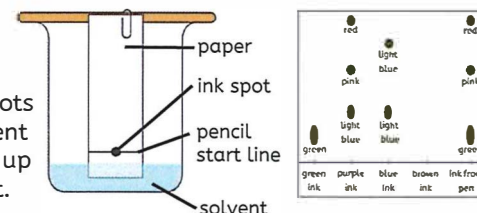


Separating mixtures

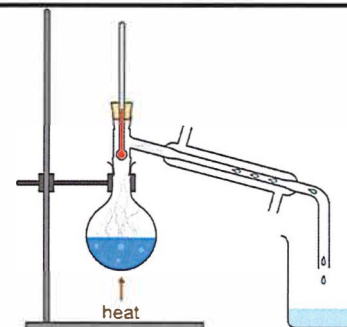
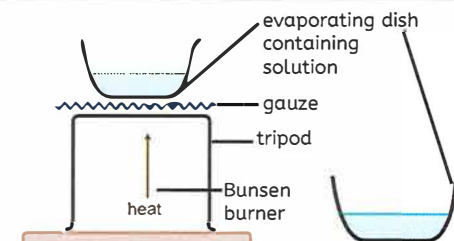
We can separate mixtures in different ways depending on their properties:

Chromatography is a separation technique that separates mixtures containing more than one solute based on their solubilities in a solvent. It works because some of the coloured substances dissolve better than others, so they travel further up the paper. A pencil line is drawn, and spots of ink or dye are placed on it. There is a container of solvent (e.g. water or ethanol). As the solvent continues to travel up the paper, the different coloured substances spread apart.

A **chromatogram**, the results of chromatography experiment.



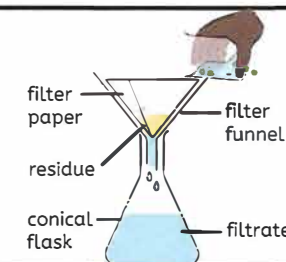
Evaporation and crystallisation can be used to separate a soluble solid from a solution. For example, copper sulphate is soluble in water – its crystals dissolve in water to form a copper sulphate solution. During evaporation, the water evaporates away, leaving solid copper sulphate crystals behind. Crystallisation produces larger solid crystals.



Distillation is a separation technique used to separate a mixture of liquids. The basis for separation in distillation is the difference in the boiling points of the components. For example, water can be separated from an ink and water solution because water has a much lower boiling point than ink. When the solution is heated, water evaporates. It is then cooled and condensed into a separate container. The ink does not evaporate, so it stays behind.

Filtration can be used to separate a liquid from an insoluble solid. The filter paper used in filtration is 'selectively permeable', meaning that it has holes in it that allow the movement of only some substances through whilst preventing the movement of others. The insoluble solid is unable to pass through the small holes of the filter paper. When a mixture of sand and water is filtered:

- The sand stays behind in the filter paper (it becomes the **residue**).
- The water passes through the filter paper (it becomes the **filtrate**).

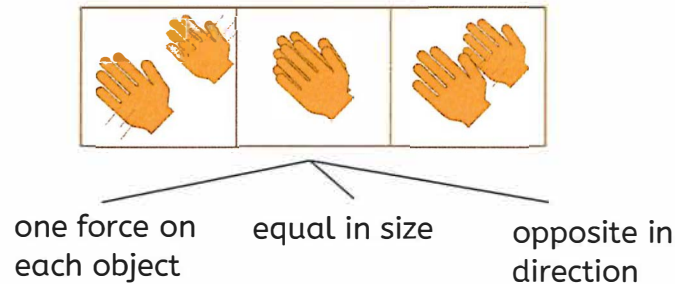


Fundamentals in physics

Forces and their interactions

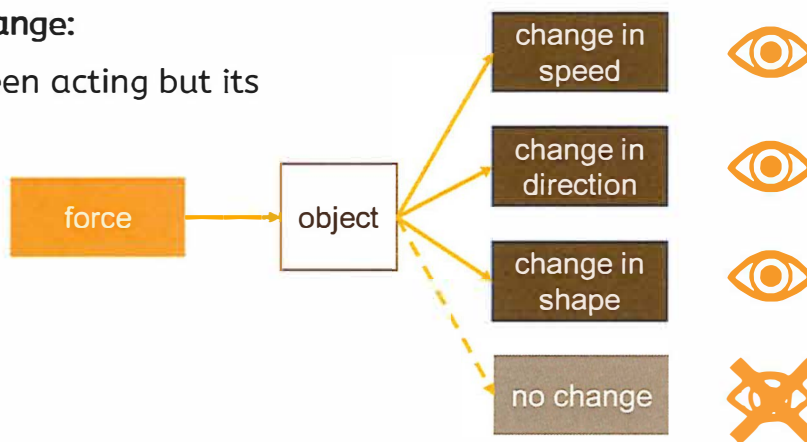
Interaction:

When two objects influence each other and cause a pair of forces to arise.



Forces can cause change:

A force cannot be seen acting but its effects often can.



Forces can be contact or non-contact:

Contact forces arise between two touching objects.

Non-contact forces can act between two objects at a distance.

contact	thrust, friction, air resistance, water resistance, normal contact, upthrust
non-contact	gravity force, magnetic force

Free-body force diagrams



upthrust force on boat by water



gravity force on boat by Earth

One object

Arrows to show size and direction of forces

Labelled forces:

- What kind of force is acting?
- What is the force acting on?
- What exerts the force?

Deforming forces



Two pushing forces cause compression: the object contracts.



Two pulling forces cause tension: the object extends.

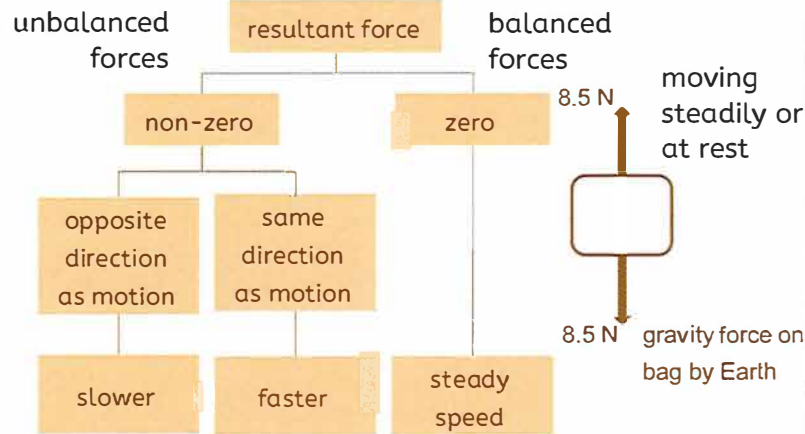


Fundamentals in physics

Combining forces

More than one force acting:

- Their effects are combined
- As if a single force is acting: the resultant force



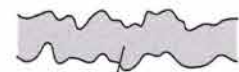
Friction force

- **What?** One of three frictional forces. They act to resist motion.
- **Where?** Acts between solid surfaces, along the surfaces.
- **When?** An object is sliding or trying to. When starting to slide, the applied force must be larger than the limiting friction: so, an unbalanced force acts.
- **How?** Opposite direction to the motion, or the applied force.
- **Why?** Surfaces are uneven, so the 'catching' between them must be overcome.

	Useful	Nuisance
Walking	✓	
Machines		✓
Driving	✓	
Wear and tear		✓



catching;



surfaces parted:
no catching

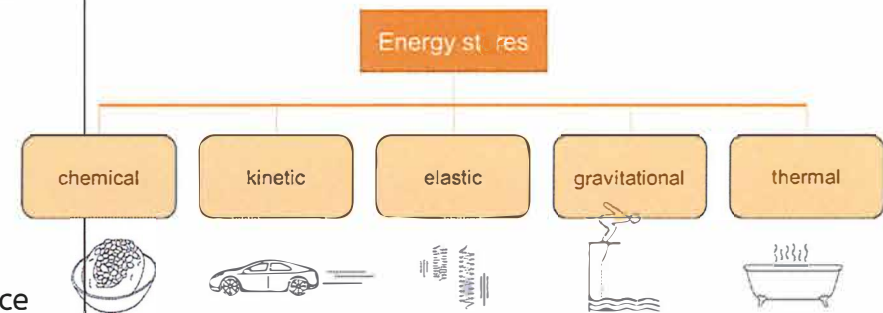
lubricant

Energy stores and pathways

What energy does:

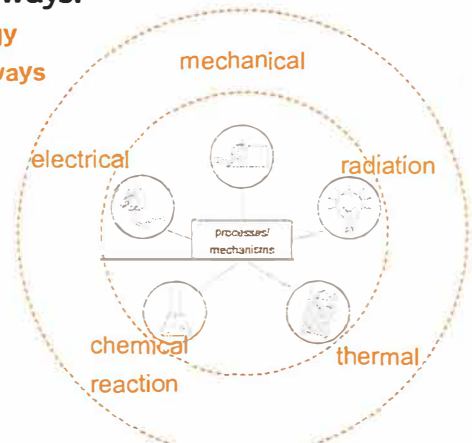
- Flows between objects in a system
- Stays the same when it transfers
- Cannot be used up

Energy is transferred between stores:



Energy is transferred because of processes, by pathways:

Energy pathways



Fundamentals in physics

Modelling forces

Forces are modelled because:

- forces cannot be seen acting
- there are many forces acting at a time
- their size and direction have important effects on situations, so need to be shown.

Arrows (length represents size, direction of forces)

Dot or rectangle shows simplified object



Labels describe type of force, object acted on and objects exerting force on it.

Investigating forces

Scientific methods:

- With or without hypothesis
- Manipulating variables or not

Statement to answer an enquiry question.

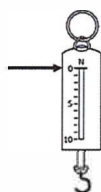
comparative term — Smoother surfaces cause less friction to act on objects sliding over them. — present tense
the effect which can be tested — 'group' being tested (IV)

Planning to collect high-quality data:

- Measuring with skill
- Preparing the data table
- Repeatable data



Check force-meter is on zero with no force.



headings describe variable

IV	Surface	Force to start sliding (N)			DV in columns
		1	2	3	
↓	Glass	1.4	1.5	1.7	repeated
	Metal	1.5	1.6	1.7	
	Polished wood	2.0	2.3	2.2	
	Plastic	2.9	3.0	2.9	
	Paper	4.5	3.8	4.0	

Peer review: ★★★

Peers (people of a similar level of knowledge) test the results for quality.

- Repeatability: Same group, same results
- Reproducibility: Different group, same results



Observing by measurement

Using a scale

- set of lines at equal increments
- Labelled with numbers and units



Measuring instruments

- Include rulers, balances, clocks and thermometers.
- Force is measured using a force-meter.



Quantities: and their units

Base quantities: length (m), mass (kg), time (s) and temperature (K).

Derived quantities include force (N).



Cells and organisation

The seven common processes of living organisms

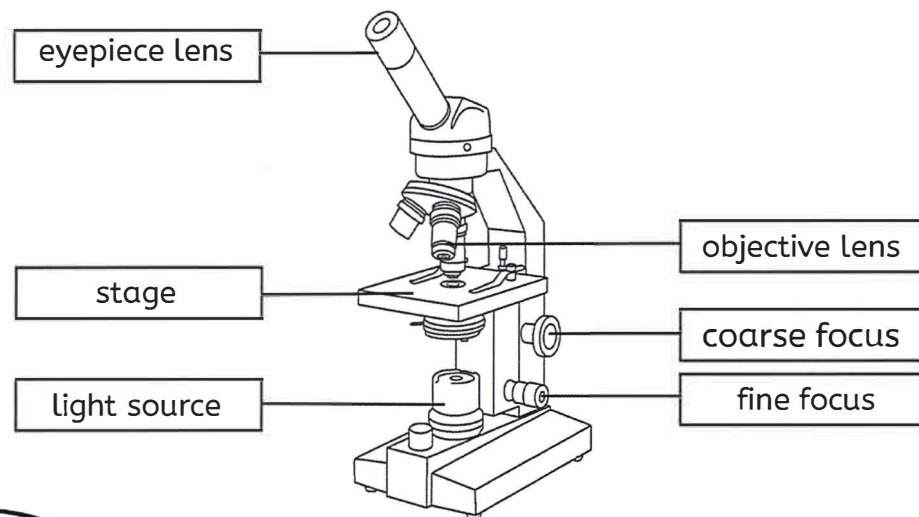
Process	Definition
movement	moving itself or its parts to change position or location
reproduction	producing offspring of the same kind
sensitivity	sensing and responding to changes in their surroundings
growth	increasing in size and repairing parts that are damaged
respiration	using oxygen and glucose (a sugar) to provide energy
excretion	removal of waste substances that are no longer needed
nutrition	using food or other nutrients like water to stay alive

Levels of organisation



cell	the smallest living building block of organisms
tissue	a group of similar cells that work together to perform a specific function
organ	a structure made up of different types of tissues that work together to carry out a specific function
organ system	a group of organs that work together to perform a common function

The parts of the microscope

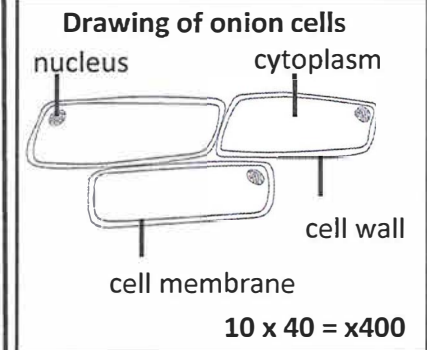


total magnification = eyepiece x objective

Using a microscope

1. Turn the **objective lens** to the **lowest magnification**.
2. Secure the slide on the **stage** using the clips.
3. Move the **stage** up to the **objective lens** by turning the **coarse focus**.
4. Look down the **eyepiece lens**, and move the stage away by turning the **coarse focus**.
5. To make the image sharper and clearer, turn the **fine focus**.
6. Rotate the **objective lens** to get a higher magnification.

Rules for scientific drawings of cells



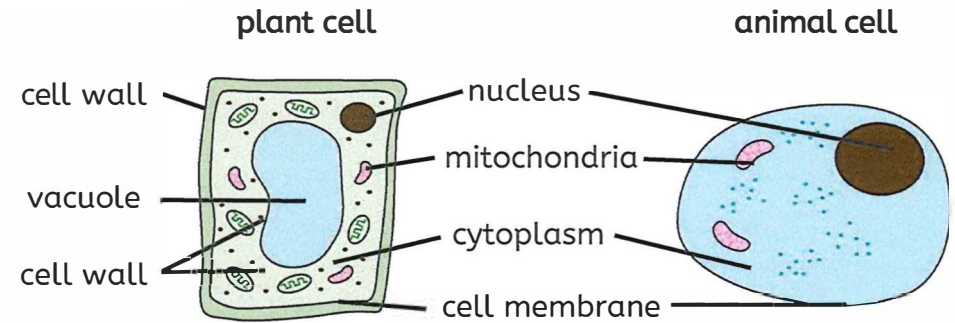
- smooth continuous lines
- large, with the same proportions
- stippling
- a few cells
- title and label
- total magnification



Cells and organisation

Cell organelles and their functions

nucleus	contains the genome that controls the cell's activities
cytoplasm	where the chemical reactions of the cell take place
mitochondria	where energy is released in respiration
cell membrane	controls which substances enter or leave the cell
vacuole	stores a watery sap
cell wall	strengthen and support the cell
chloroplasts	where light is trapped for photosynthesis to happen



Cells are three dimensional (3D).

The rate of diffusion

The rate of diffusion means how fast diffusion happens. Three factors that can affect the rate of diffusion are **temperature**, the **concentration** of particles and **surface area**.

- The higher the temperature, the faster the rate of diffusion.
- The bigger the difference in the concentration of particles, the faster the rate of diffusion.
- The larger the surface area, the faster the rate of diffusion.

Needs of plants and animals for survival

- Plants need, oxygen, water, light, carbon dioxide, minerals, a suitable temperature and space to grow.
- Animals, including humans, need water, oxygen, nutrients and the right temperature to survive.
- Plants and animals need these to keep all the cells that make them up alive and functioning properly.

Oxygen and **glucose** (a sugar) are needed for **respiration** to take place in cells, to provide energy to keep cells alive. These useful substances enter the cell by **diffusion**. Waste products of respiration are carbon dioxide and water. Waste products leave the cell by diffusion and need to be removed from cells to keep them alive.

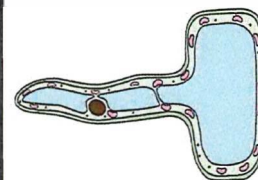
Specialised cells are adapted to carry out a specific function



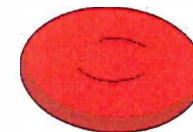
A **palisade cell** has **lots of chloroplasts** that absorb light for photosynthesis and a **column shape** to pack more in the leaf.



A **muscle cell** has **lots of mitochondria** to release energy for contraction.



A **root hair cell** has a **long cell membrane** that provides a large surface area to absorb more water and minerals.



A **red blood cell** has **no nucleus** for extra space to carry more oxygen.





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Year 7

Food Technology

Heart - Ambition - Respect - Tenacity

Name:

Date:



The Eatwell Guide

- When choosing food and drinks, current healthy eating guidelines should be followed.



Fruit and vegetables

- This group should make up just over a third of the food eaten each day.
- Aim to eat at least five portions of a variety each day.
- Choose from fresh, frozen, canned, dried or juiced.
- A portion is around 80g (3 heaped tbs).
- 30g of dried fruit or 150ml glass of fruit juice or smoothie count as a max of 1 portion each day.

Potatoes, bread, rice, pasta or other starchy carbohydrates

- Base meals around starchy carbohydrate food.
- This group should make up just over a third of the diet.
- Choose higher-fibre, wholegrain varieties.

Dairy and alternatives

- Good sources of protein and vitamins.
- An important source of calcium, which helps to keep bones strong.
- Should go for lower fat and lower sugar products where possible.

To find out more, go to:
<https://bit.ly/2QzUMfe>

The Eatwell Guide

- Comprises 5 main food groups.
- Is suitable for most people over 2 years of age.
- Shows the proportions in which different groups of foods are needed in order to have a well-balanced and healthy diet.
- Shows proportions representative of food eaten over a day or more.

Beans, pulses, fish, eggs, meat and other protein

- Sources of protein, vitamins and minerals.
- Recommendations include to aim for at least two portions of fish a week, one oily, and; people who eat more than 90g/day of red or processed meat, should cut down to no more than 70g/day.

Oil and spreads

- Unsaturated fats are healthier fats that are usually from plant sources and in liquid form as oil, e.g. olive oil.
- Generally, people are eating too much saturated fat and need to reduce consumption.

Foods high fat, salt and sugar

- Includes products such as chocolate, cakes, biscuits, full-sugar soft drinks, butter and ice cream.
- Are high in fat, sugar and energy and are not needed in the diet.
- If included, should be had infrequently and in small amounts.

8 tips for healthier eating

These eight practical tips cover the basics of healthy eating, and can help you make healthier choices.

1. Base your meals on starchy carbohydrates.
2. Eat lots of fruit and veg.
3. Eat more fish – including a portion of oily fish.
4. Cut down on saturated fat and sugar.
5. Eat less salt (max. 6g a day for adults).
6. Get active and be a healthy weight.
7. Don't get thirsty.
8. Don't skip breakfast.

Hydration

- Aim to drink 6-8 glasses of fluid every day.
- Water, lower fat milk and sugar-free drinks including tea and coffee all count.
- Fruit juice and smoothies also count but should be limited to no more than a combined total of 150ml per day.

Fibre

- Dietary fibre is a type of carbohydrate found in plant foods.
- Food examples include wholegrain cereals and cereal products; oats; beans; lentils; fruit; vegetables; nuts; and, seeds.
- Dietary fibre helps to: reduce the risk of heart disease, diabetes and some cancers; help weight control; bulk up stools; prevent constipation; improve gut health.
- The recommended average intake for dietary fibre is 30g per day for adults.

Composite/combination food

Much of the food people eat is in the form of dishes or meals with more than one kind of food component in them. For example, pizzas, casseroles, spaghetti bolognese and sandwiches are all made with ingredients from more than one food group. These are often called 'combination' or 'composite' foods.



Key terms

The Eatwell Guide: A healthy eating model showing the types and proportions of foods needed in the diet.

Hydration: The process of replacing water in the body.

Dietary fibre: A type of carbohydrate found in plant foods.

Composite/combination food: Food made with ingredients from more than one food group.

Meals and snacks can be sorted into The Eatwell Guide food groups.

Composite/combination food - Lasagne



Pasta (lasagne sheets): Potatoes, bread, rice, pasta or other starchy carbohydrates

Onions, garlic and chopped tomatoes: Fruit and vegetables

Lean minced meat (or meat substitute): Beans, pulses, fish, eggs, meat and other protein

Cheese sauce made with milk and cheese: Dairy and alternatives

Olive/vegetable oil used to cook onions and mince: Oil and spreads

Task

Plan a menu for a day that applies the principles of The Eatwell Guide and the 8 tips for healthier eating. Make one of the dishes, complete a sensory evaluation and calculate the energy and nutrients provided using nutritional analysis.

Name: _____

Date: _____



Food hygiene

- Good food safety and hygiene practices are essential to reduce the risk of food poisoning.

Food poisoning

Food poisoning can be caused by:

- bacteria, e.g. through cross-contamination from pests, unclean hands and dirty equipment, or bacteria already present in the food, such as salmonella;
- physical contaminants, e.g. hair, plasters, egg shells, packaging;
- chemicals, e.g. cleaning chemicals.

Bacterial contamination is the most common cause.

Microorganisms occur naturally in the environment, on cereals, vegetables, fruit, animals, people, water, soil and in the air. Most bacteria are harmless but a small number can cause illness. Harmful bacteria are called pathogenic bacteria.

The process of food becoming unfit to eat through oxidation, contamination or growth of micro-organisms is known as food spoilage.

Bacterial growth and multiplication

All bacteria, including those that are harmful, have four requirements to survive and grow:

- food;
- moisture;
- warmth;
- time.



High risk food

Bacteria easily multiply on foods known as 'high-risk food'. These are often high in protein or fat, such as cooked meat and fish, dairy foods and eggs. Cooked pasta and rice are also regarded as high risk foods if they are not cooled quickly after cooking and stored below 5°C.

Moisture

Bacteria need moisture to survive. Dried foods, such as powdered milk, cereals or dried egg do not support bacterial growth, if properly stored. However, if moisture is added, any bacteria still alive can quickly begin to multiply.

Symptoms of food poisoning

The symptoms of food poisoning include:

- nausea;
- vomiting;
- stomach pains;
- diarrhoea.

People at risk

Elderly people, babies and anyone who is ill or pregnant needs to be extra careful about the food they eat.

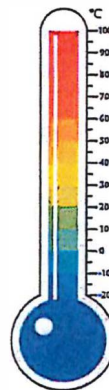
Why clean?

To remove grease, dirt and grime, and prevent food poisoning and pests.

Temperatures to remember

To reduce the risk of food poisoning, good temperature control is vital:

- 5-63°C – the danger zone where bacteria grow most readily.
- 37°C – body temperature, optimum temperature for bacterial growth.
- 8°C – maximum legal temperature for cold food, i.e. your fridge.
- 5°C (or below) – the ideal temperature your fridge should be.
- 75°C – if cooking food, the core temperature, middle or thickest part should reach at least this temperature.
- 75°C – if reheating food, it should reach at least this temperature. In Scotland food should reach at least 82°C.



Allergen and food intolerance awareness

There are 14 ingredients (allergens) that are the main reason for adverse reactions to food. Cross-contamination of food containing these allergens must be prevented to reduce the risk of harm. They must also be labelled on pre-packaged food and menus so that consumers can make safe choices. The 14 allergens are:

Celery (and celeriac)	Milk
Cereals containing gluten	Molluscs
Crustaceans	Mustard
Eggs	Nuts
Fish	Peanuts
Lupin	Sesame
	Soybeans
	Sulphur dioxide

Where should food be stored in the fridge?

Cheese, dairy and egg-based products

The temperature is usually coolest and most constant at the top of the fridge, allowing these foods to keep best here.

Cooked meats

Cooked meats should always be stored above raw meats to prevent contamination from raw meat.

Raw meats and fish

Raw meats and fish should be below cooked meats and sealed in containers to prevent contamination of salad and vegetables.

Salad and vegetables

These should be stored in the drawer(s) at the bottom of the fridge. The lidded drawers hold more moisture, preventing the leaves from drying out.

Time

When bacteria spend enough time on the right types of food, at warm temperatures, they can multiply to levels that cause illness.

Reheat food only once and eat leftovers within 48 hours.

Use-by-date

You've got until the end of this date to use or freeze the food before it becomes too risky to eat.

USE BY:

25/08/20

KEEP REFRIGERATED

Getting ready to cook

- Remove blazers/jumpers and roll up long sleeves.
- Tie up long hair and tuck in ties or head coverings.
- Thoroughly wash and dry hands.
- Put on a clean apron.

Best-before-date

You can eat food past this date but it might not be at its best quality.

BEST BEFORE:

25/08/21

STORE IN A COOL DRY PLACE

Key terms

Allergens: Substances that can cause an adverse reaction to food. Cross-contamination must be prevented to reduce the risk of harm.

Bacteria: Small living organisms that can reproduce to form colonies. Some bacteria can be harmful (pathogenic) and others are necessary for food production, e.g. to make cheese and yogurt.

Cross-contamination: The transfer of bacteria from one source to another. Usually raw food to ready-to-eat food but can also be the transfer of bacteria from unclean hands, equipment, cloths or pests. Can also relate to allergens.

Food poisoning: Illness resulting from eating food which contains food poisoning micro-organisms or toxins produced by micro-organisms.

High risk ingredients: Food which is ready to eat, e.g. cooked meat and fish, cooked eggs, dairy products, sandwiches and ready meals.

Task

Create a poster highlighting the top tips for ensuring food is safe to eat. Include personal hygiene, safe storage, preparation and cooking of food.

To find out more, go to:
<https://bit.ly/2Z97B5f>

Name:

Date:

Cooking

- A broad range of ingredients, equipment, food skills and techniques, and cooking methods are used to achieve successful results.
- Recipes and cooking methods can be modified to help meet current healthy eating messages.

Why is food cooked?

Some foods can be eaten raw and form an important part of the diet. However, many foods need to be prepared and cooked before they are eaten to:

- make the food safe to eat by destroying pathogenic microorganisms and toxins;
- destroy microorganisms and enzymes that cause food to deteriorate and therefore increase the keeping quality of the food;
- make the food more digestible and easier to absorb.

Food skills

There are a number of food skills which enable a variety of increasingly complex dishes to be prepared and made.

These can include:

- beating, combining, creaming, mixing, stirring and whisking;
- blitzing, pureeing and blending.
- kneading, folding, forming and shaping;
- knife skills;
- rubbing-in and rolling-out;
- use of the cooker: boiling/simmering/poaching, frying, grilling, roasting and baking.

Safety

- Sharp knives: never walk around with a knife. Use the *bridge hold* and *claw grip* to cut safely.
- Grater: hold grater firmly on a chopping board. Grate food in one direction and leave a small amount at the end to prevent injury to knuckles.
- Hot liquid: drain hot liquid carefully over the sink using a colander.
- Saucepans: turn panhandles in from the edge, so they are not knocked.
- Hot equipment: always use oven gloves when placing food in and out of the oven.
- Spills: wipe up immediately.
- Electrical equipment: always follow instructions.

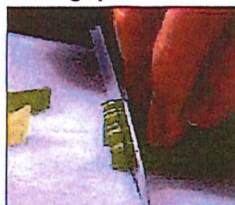
To find out more, go to:
<https://bit.ly/322eSpr>

Food skills are acquired, developed and secured over time.

Bridge hold



Claw grip



Food skill	Food skill	Food skill	Food skill	Food skill
Bake	Fry and sauté	Portion / divide		
Beat	Glaze and coat	Prove		
Blitz, puree and blend	Grate	Roast		
Casserole	Grill	Roll-out		
Chill	Juice	Rub-in		
Core	Knead	Sift		
Cream	Layer	Snip		
Crush	Mash	Spread		
Cut out	Measure	Stir-fry		
Cut, chop, slice, dice and trim	Melt, simmer and boil	Weigh		
Decorate and garnish	Microwave	Whisk		
Drain	Mix, stir and combine	Zest		
Fold	Peel			
Form and shape	Pipe			

Heat exchange/transfer

Cooking requires heat energy to be transferred from the heat source, e.g. the cooker hob, to the food. This is called heat transfer or heat exchange. There are three ways that heat is transferred to the food. They are:

- conduction – direct contact with food on a surface, e.g. stir-frying;
- convection – currents of hot air or hot liquid transfer the heat energy to the food, e.g. baking;
- radiation – energy in the form of rays, e.g. grilling.

Many methods of cooking use a combination of these. The amount of heat and cooking time will vary according to the type of food being cooked and the method being used.

Cooking methods

These are based on the cooking medium used:

- moist/water based methods of cooking, e.g. boiling, steaming, stewing, braising;
- dry methods of cooking, e.g. grilling, baking, roasting, toasting, BBQ;
- fat-based methods of cooking – stir, shallow and deep fat frying.

Vegetable cuts



batons – 5-6.5cm long x 1 cm square



dice – 1cm square



julienne/match stick – 5-6.5cm long x 3 mm square



fine julienne – 5-6.5cm long x 1.5mm square

Task

Complete the *Food route Cooking journal*:
<https://bit.ly/3dYUibH>



Key terms

Conduction: The exchange of heat by direct contact with foods on a surface e.g. stir-frying or plate freezing.

Convection: The exchange of heat by the application of a gas or liquid current e.g. boiling potatoes or blast chilling.

Heat transfer: Transference of heat energy between objects.

Radiation: Radiation is energy in the form of rays, e.g. grilling.

Cooking for health

Take into account healthy eating recommendations to ensure that dishes/meals are part of a varied, balanced diet.

- Planning – does the meal meet the nutritional needs and preferences of those it is being cooked for? Base your meals on starchy food.
- Choosing – choose low fat/sugar/salt versions, where possible.
- Preparing – limit the amount of fat added (try a spray oil) and replace salt with other flavourings, such as herbs and spices.
- Cooking – use cooking practices which reduce the amount of fat needed and minimise vitamin losses from fruit and vegetables.
- Serving – serve the meal in proportions which reflect current healthy eating advice.
- Do not forget to include a drink.

Healthier cooking methods

- Grill or BBQ foods rather than fry to allow fat to drain away.
- Drain or skim fat from liquids, e.g. sauces, stews and casseroles.
- Dry fry using non-stick pans, so no need for oil.
- Oven bake rather than fry.
- Steam or microwave vegetables.



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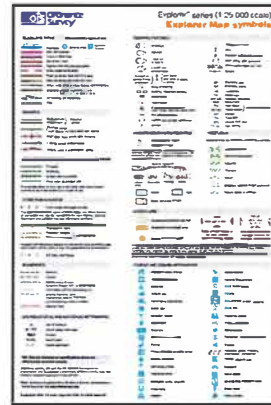
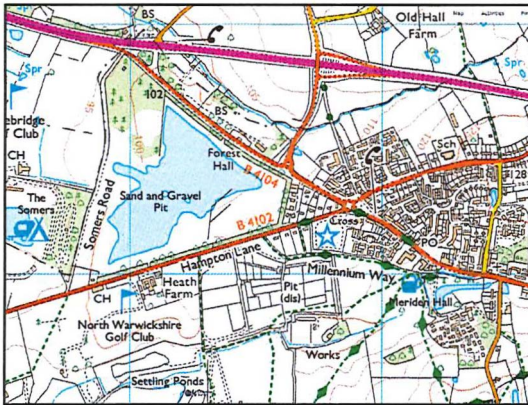
Geography

Heart - Ambition - Respect - Tenacity

Introduction to geographical skills

Maps and symbols

OS maps use symbols to show human and physical features. Maps have a **title**, **labels**, a **compass rose**, a **scale** and a **key**.



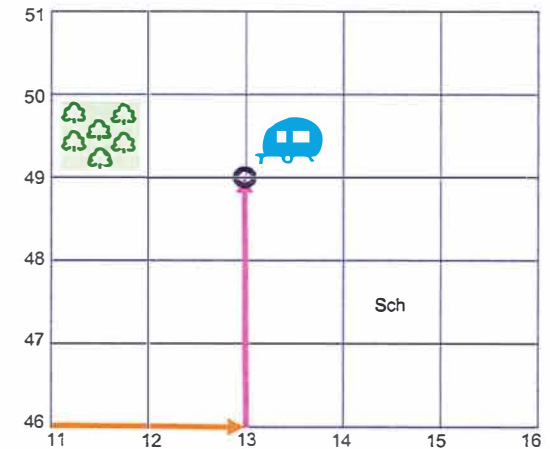
Key vocabulary

- **Continent** – One of the seven large land masses on Earth
- **Longitude** – The lines down the earth showing east or west
- **Latitude** – The lines across the earth showing north and south
- **Eastings** – The grid reference along the bottom
- **Northings** – The grid reference up the side
- **Contour lines** – Brown lines on a map that show height
- **Relief** – The height of the land
- **Topography** – The shape and physical features of an area
- **Altitude** – Height above sea level (measured in metres).
- **OS map** – Ordnance Survey is a map of areas of the UK

Four-figure grid references

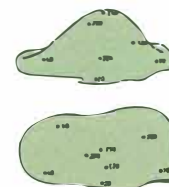
Four-figure grid references are used to describe locations on an OS map.

1. Look at the bottom-left corner of the square.
2. Find the **easting**.
3. Find the **northing**.
4. Write down the four-figure grid reference.



Relief

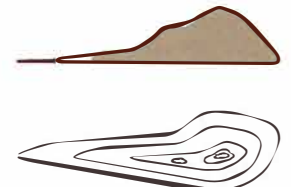
Height on a 2D map can be shown using three methods:



Spot heights – a dot giving the exact height of a specific point.



Colour layering – different heights are shown by bands of different colours.

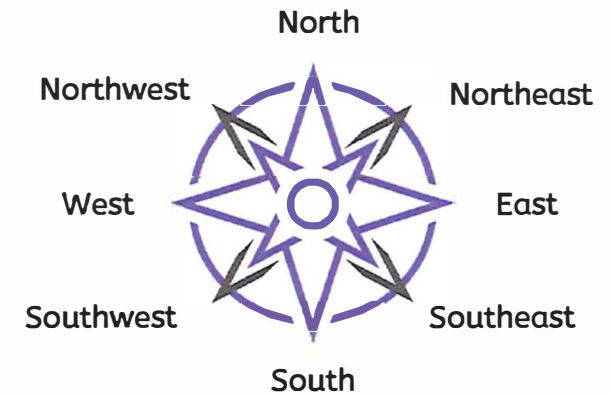


Contour lines – brown lines connecting areas of the same height.

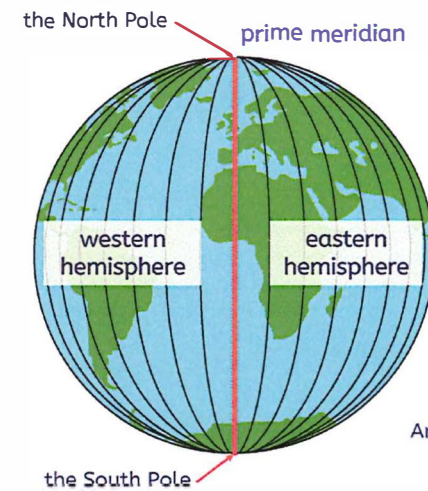


Introduction to geographical skills

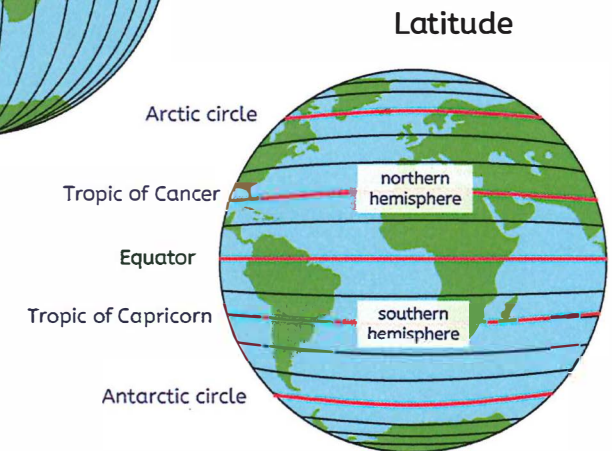
Continents, oceans and countries in the UK



Longitude and latitude



Longitude

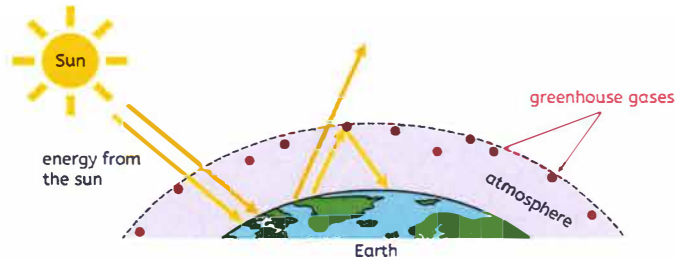


Latitude



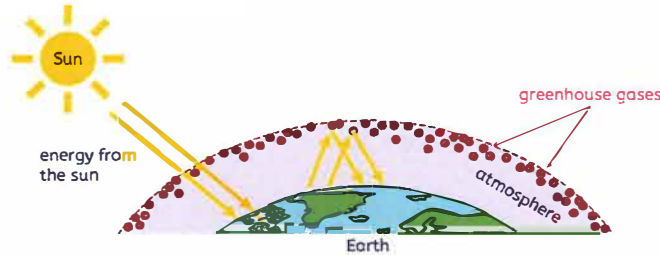
Introduction to global climate

Global warming

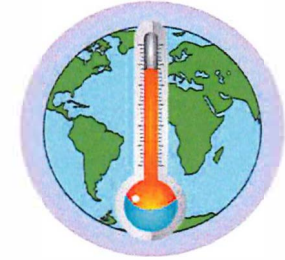


The **greenhouse effect** is the **natural process**, **which** has always taken place, that keeps the Earth warm. Without it, the Earth would be too cold to live on.

The light and heat energy are trapped in the atmosphere by greenhouse gases, such as carbon dioxide. This warms the Earth.



The **enhanced greenhouse effect** causes an **unnatural increase in temperature**. Human activities (such as burning fossil fuels, transport, waste, agriculture, deforestation) increase the amount of greenhouse gases in the atmosphere. The Earth warms more quickly, and global warming increases.



Accelerated global warming can also lead to other changes in the Earth's long-term weather patterns, such as precipitation, wind and storms. The changes to the Earth's wider climate – not just temperature – are called **climate change**.

The causes of climate change

Climate change is caused by:

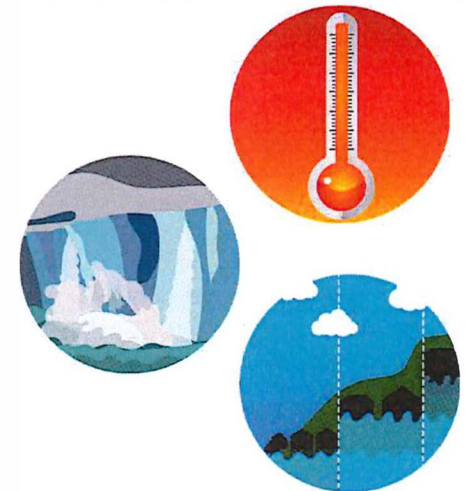
- burning fossil fuels for transport and electricity generation, which releases greenhouse gases
- deforestation, which reduces the absorption of greenhouse gases
- agriculture and waste disposal, which release greenhouse gases



The effects of climate change

Climate change can cause:

- more extreme weather events, such as heatwaves
- melting sea ice and ice caps
- rising sea levels and flooding of coastal areas



Development

Background

Across the world, the standard of living and quality of life can be very different.

A Countries therefore have different classifications based on the quality of life within them.

B How developed a country is can be measured in different ways.

C Development levels can vary within and between countries. There are many reasons why some countries are more developed than others.

D,E Countries can become more developed in many ways, including through economic growth from tourism, top-down development projects and bottom-up development projects.

A) Country classification

1 developed	(n) countries with high standards of living, advanced infrastructure and strong economies.
2 emerging	(n) countries transitioning between developing and developed, showing rapid improvements in infrastructure.
3 developing	(n) countries with lower standards of living, less advanced infrastructure and economies that are growing but not yet strong.

B) Measuring development

1 GNI per capita	(n) the average income of a country's citizens.
2 infant mortality rate	(n) the number of babies that do not survive to one year old per 1,000 births.
3 life expectancy	(n) the average number of years a person is expected to live.
4 literacy rate	(n) the percentage of people in a specific age group, typically aged 15 and above, who can read and write.
5 average years of schooling	(n) the average number of years of education that individuals aged 25 and older have completed.
6 Human Development Index (HDI)	(n) a composite measure of development that is used to categorise the development of countries using GNI per capita, life expectancy and average years of schooling.

C) Factors that hinder development

Human	Physical
uneven distribution of income	challenging relief
corruption	extreme climate
conflict	lack of natural resources
low-value goods and services for trade	landlocked
high levels of debt	tectonic hazards
poor education systems	extreme weather
poor healthcare systems	lack of water resources



D and E) Development Projects

D) Top-down project: The Grand Inga Dam DRC

Advantages	Disadvantages
It provides a reliable source of renewable energy for the DRC.	It would flood 22,000 hectares of land in the Bundi Valley.
It provides electricity for Kinshasa at a lost cost.	Natural habitats will be destroyed by the reservoir.
It produces electricity that the DRC can sell the other countries.	35,000 people would be displaced from their homes by the dam reservoir.
It produces electricity to power more coltan and copper mines.	Electricity will be sold to other countries, and many people in rural DRC will still be without electricity.

E) Bottom-up project: WECAN DRC

Advantages	Disadvantages
It protects the habitats of 100,000 species of animals and plants.	It is small scale, so it has limited reach.
It empowers indigenous women.	It does not stop illegal logging.
Women earn money from selling fruit and herbs from the trees planted.	The project currently supports only 700 women.
It reduces the impact of climate change through reforestation.	It takes a long time for the full benefits to be achieved.





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History

Heart - Ambition - Respect - Tenacity

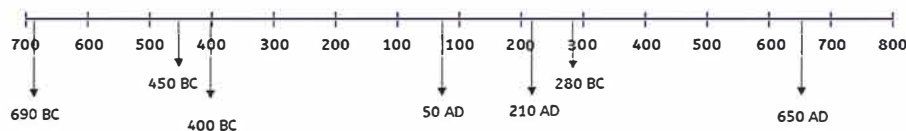
7.01 Empires East and West c.1000

Key Vocabulary

- 1 **Apothecary** A person who in the past made and sold medicines.
- 2 **Astronomy** The study of space, stars and planets.
- 3 **Caliph** The ruler of the Islamic Empire.
- 4 **Dynasty** A sequence of rulers from the same family.
- 5 **Empire** A group of countries ruled by a single ruler.
- 6 **Innovation** Improving something or creating something that is a new technology.
- 7 **Madrasa** Muslim school or college.
- 8 **Migration** The movement of people from one place to another.
- 9 **Monarch** A king or queen.
- 10 **Pilgrim** A person who makes a journey, often a long and difficult one, to a special place for religious reasons.

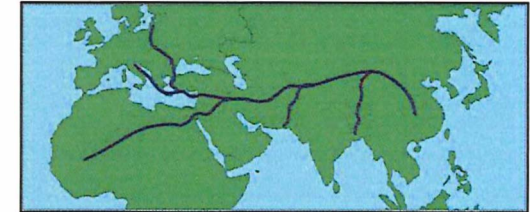
Chronology

- A **chronology** (n) the arrangement of events, or dates, in the order of occurrence.
- B **millennium** (n) a period of 1,000 years.
- C **century** (n) a period of 100 years.
- D **decade** (n) a period of 10 years.



Place

The **Silk Road** was an important trading route for spices, silk and knowledge. The Silk Road connected China with European countries.



Themes and Threads

Power



The control a person or group has in a country.
For example, powerful empires which existed c.1000 held power through emperors, empresses and caliphs.
This includes threads such as warfare and empire.

Identity



The qualities and characteristics that make a person who they are and what they value as important.
For example, religious beliefs such as Buddhism, Islam and Christianity influenced empires and individuals c.1000.
This includes threads such as women and beliefs.

Connectivity



The act of joining or being linked to somewhere, someone or something else.
For example, people, knowledge and beliefs travelled across continents using trade routes, such as the Silk Roads.
This includes threads such as migration, trade, innovation, medicine and knowledge.



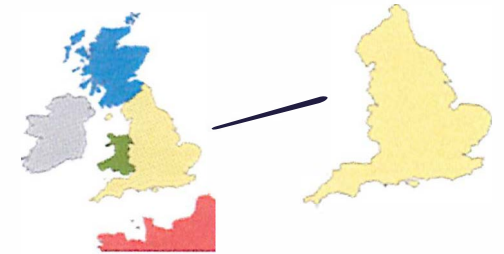
7.02 Norman Conquest

Key Vocabulary

1 migration	(n) the movement of people from one place to another.
2 invade	(v) to enter an area by force to take control.
3 succession	(n) the order of taking over an official title or position.
4 inherit	(n) to receive something from a person who has died.
5 claimant	(n) a person who believes they have a right to something.
6 oath	(n) a promise witnessed by God.
7 illegitimate	(n) a child born to parents who are not married.
8 conquer	(v) to take control of a place or people by force.
9 cavalry	(n) a group of soldiers who fight on horses.
10 archer	(n) a person who shoots with a bow and arrow
11 infantry	(n) Soldiers who fight on foot.
12 coronation	(n) a ceremony where the new monarch is crowned.
13 Motte and Bailey Castle	(n) a simple castle with a man-made hill surrounded by a clear defensive area.
14 Harrying	(v) to repeatedly attack somewhere or something.
15 feudal system	(n) system where someone who held land gave land to others on the condition that they serve them.
16 primogeniture	(n) being the first-born child.
17 source	(n) Things that people made or wrote during the time in history you are studying.
18 interpretation	(n) This is an opinion about what the past was like.

Place

This unit will focus on **England**.
The UK was formed in 1801 under the Act of Union



Key people



William the Conqueror

- King 1066 – 1087
- Duke of Normandy
- King after the Battle of Hastings – 14th October 1066
- Supported by: Pope



Harold Godwinson

- King January 3rd 1066 – 14th October 1066
- King of England – Earl of Wessex
- Died after his defeat in the Battle of Hastings
- Supported by: Witan



Harald Hardrada

- King of Norway
- Died after his defeat at Stamford bridge – 25th September 1066
- Supported by: The Vikings in the north of England and Tostig Godwinson

5th January 1066

Death of Edward the Confessor

6th January 1066

Harold Godwinson crowned King of England

1069

Harrying of North

25th September 1066

Battle of Stamford Bridge

1070

1080

1086

Domesday Book

1090

14th October 1066

Battle of Hastings

25th December 1066

William crowned King of England



7.03 Medieval Religion

Key Vocabulary

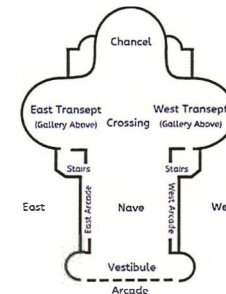
1	Church	(n) The institution of the Christian Church, including all the people who ran it and all the individual churches.
2	church	(n) A Christian place of worship.
3	clergy	(n) Officials of the Church led by the pope.
4	excommunication	(n) Power of the pope to expel someone from the Church.
5	laity	(n) Ordinary people who attend church but do not hold official religious positions.
6	martyr	(n) A person who suffers or is killed because of their religious or political beliefs.
7	mass	(n) Religious service on a Sunday that worshippers were expected to attend.
8	monastery	(n) A building in which monks live and worship.
9	persecution	(n) Unfair or cruel treatment over a long period of time because of race, religion or beliefs.
10	pilgrimage	(n) A journey typically taken to a site of religious importance.
11	purgatory	(n) A place where an individual's soul stayed until all their sins had been forgiven.
12	relic	(n) Part of a saint's body or something they owned which was believed to have the power to perform miracles.

Key Buildings



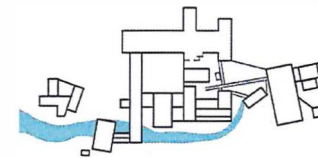
Cathedral

- Largest buildings
- Supported by Bishops
- Can be seen for miles around meaning that God is always watching



Parish Churches

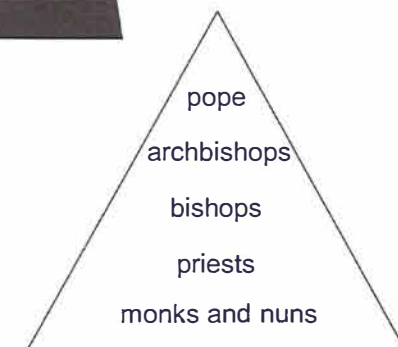
- Smaller, community churches
- Built in the shape of a cross – Cruciform
- Parishioners – ordinary people would go to church every Sunday



Monasteries

- Large religious building
- Monks live and work there
- Medieval hospital where people were treated if they are unwell

Church hierarchy





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Music

Heart - Ambition - Respect - Tenacity

Musical Context

Drum kit:

- Bass drum, snare drum, hi-hat
- Often plays **fills** at the end of phrases

Samba:

- Musical style from Brazil
- Carnival music featuring lots of percussion (the batterie)
- Instruments: Surdo, Caixa, repenique, tamborim, chocalho
- Calls and responses are called **bossas**

'The Rite of Spring':

- A ballet
- Written by Russian composer, Stravinsky, in 1913
- Revolutionary piece that caused a riot
- Accented rhythms and syncopations
- Changing metre

'Connect It':

- Body percussion piece
- Written by Anna Meredith in 2015
- Use of canon and imitation







Vocabulary

Pulse	The main heartbeat of the music
Ostinato	Repeated rhythm
Syncopation	Off beat rhythm
Metre	Organisation of pulse (in 3, in 4)
Phrase	Musical sentence
Call And Response	Imitation/copying a phrase
Cadence	End of a musical phrase
Binary	Structure in two parts
Canon	Playing the same music, starting at different times
Accent	Stronger note with more emphasis

Terminology

Rhythm	Length of notes and how they are organised
Structure	The order of the sections in a piece of music
Tempo	Speed of the music
Timbre	The tone quality of a sound
Dynamics	The loudness/softness of the music

Theory

Note Name	Note Symbol	Note Value		
Semi-breve		4 beats	Rest	A silence - a crotchet rest (1 beat), a quaver rest (a 1/2 beat)
Minim		2 beats	Dotted Notes	A dot next to a note increases the length by half of the original note
Crotchet		1 beat	Triplets	Three notes played in the time of two
Quaver		1/2 of a beat	Time Signature	This shows how many beats are in a bar (the metre)
Pair of Quavers		2x 1/2 beats = 1	Simple Time Signature	Each beat divides into 2 (2/4, 4/4, 3/4)
Semi-quaver		1/4 of a beat	Compound Time Signature	Each beat divides into 3 (6/8, 12/8, 9/8)

Singing and the Elements

Musical Context

Singing

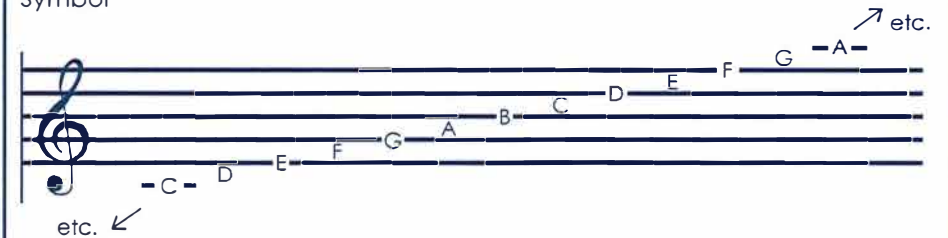
- 3 steps for warming up the voice: Stretching – Breathing – Diction

Terminology

Tonality	The key of the music, e.g. major
Dynamics	The loudness of the music
Tempo	Speed of music
Articulation	How notes are played, the separation between notes
Structure	The order of the sections in a piece of music

Theory

Treble Clef
Symbol

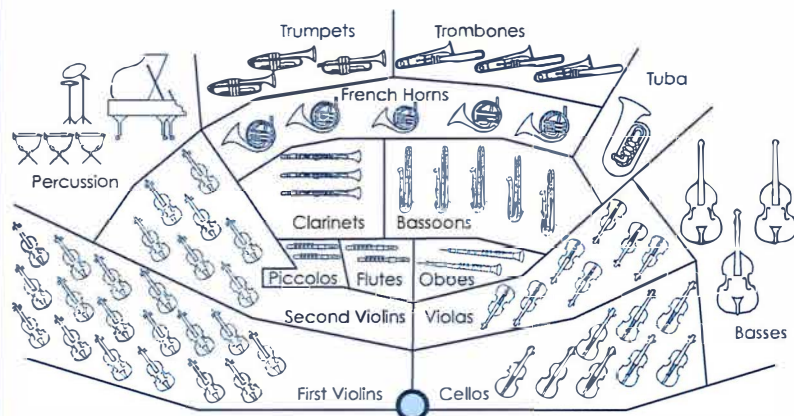


Vocabulary

Major	Bright, happy sounding key	Allegro	Fast tempo
Minor	Sad, gloomy sounding key	Adagio	Slow tempo
Forte	Loud	Presto	Quick tempo
Piano	Soft	Lento	Very slow tempo
Fortissimo	Very loud	Legato	Smooth playing
Pianissimo	Very soft	Staccato	Detached playing
Crescendo	Gradually getting louder	Round	Musicians play the same music, starting at different points
Diminuendo	Gradually getting softer		

Melody Pitch and Patterns

Musical Context



Musical Context

○ Fortuna:

- The introduction to 'Carmina Burana' by the composer Carl Orff
- Secular – a piece that is not religious or part of worship
- Cantata – vocal piece with orchestra

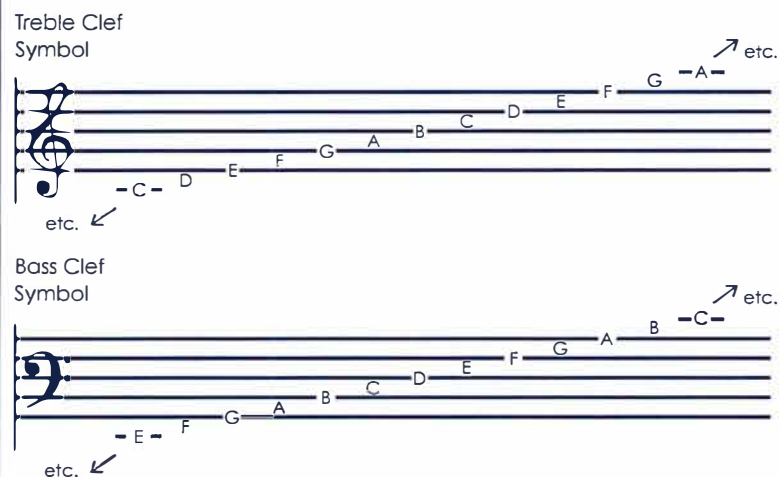
Keyboard layout:



Vocabulary

Accompaniment	Musical background
Scale	Pitches moving by step
Stepwise Movement	Moving to an adjacent note
Forte	Loud
Fortissimo	Very loud
Piano	Soft
Pianissimo	Very soft
Ostinato	Repeated rhythm or musical phrase
Third	Interval between notes, 3
Octave	Interval between notes, 8
Musical Score	Notation of combined instruments/voices
Pedal	Sustained note
Improvisation	Creating music in the moment

Theory



Terminology

Melody	Tune
Dynamics	The loudness of the music
Tempo	The speed of the music
Texture	The layers of sound
Structure	The order of the sections in a piece of music



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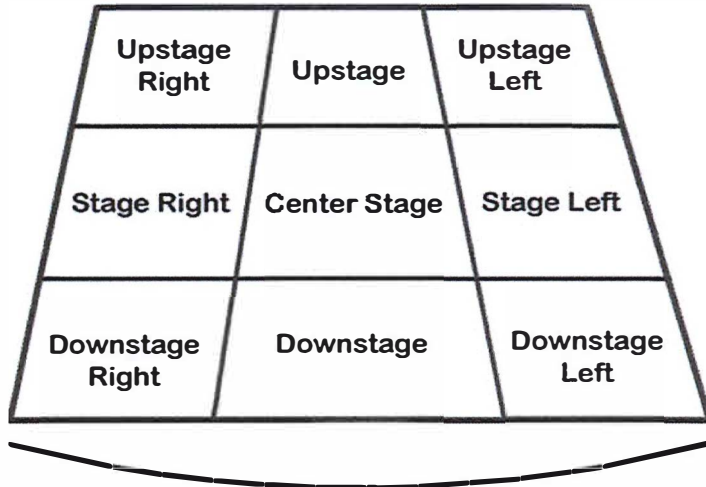
Year 7

Performing Arts

Heart - Ambition - Respect - Tenacity

Key terms and vocabulary

Stage Directions



AUDIENCE

Vocabulary for creating

Creativity	Using your imagination to bring ideas to life
Rehearse	Spending time refining your ideas to result in an outcome
Characterisation	Developing a role through voice and body
Stimulus	The starting point of a piece of work
Motivation	The reason for a characters actions on stage
Script	The words an actor/performer says in a play
Theme	The subject or topic of a piece
Blocking	The movement an actor does on stage
Devising	Creating a piece based on a stimulus
Feedback	Using opinions of others to improve work

Production Roles

Director	Instructs the performers and makes creative choices
Choreographer	Makes up the dance steps and works with the ensemble
Musical Director	Works with musicians and singers in a performance
Performer	The person on the stage communicating with an audience
Light/sound technicians	The people who create the lights and sounds in a performance

Vocabulary for performing

Facial Expressions	Using your face to show emotions or character	Mannerism	An action repeated to become a character trait	Projection	Ensuring your voice can be heard by the audience
Posture	How you hold your upper body to show an emotion	Stamina	The ability to sustain physical effort for a period of time	Coordination	Moving more than one body part at the same time
Body Language	How you communicate through your body	Balance	Remaining stable and finding stillness	Proxemics	Using the space to show different relationships
Gestures	Using your hands to communicate	Pace	How fast or slow you move and speak	Focus	Where are your eyes in a performance
Stance	The way you stand to portray your character and status	Volume	How loud or quiet your vocal skills are	Spatial awareness	Knowing who and what is around you
Movement	Travelling from A to B or changing positions	Actions	A gesture, movement, an act of doing	Articulation	Creating clear vocal sounds

Genres and Performance Styles

Pantomime

Pantomime, rooted in ancient Roman “mime” and later commedia dell’arte, evolved in 18th-century Britain into a popular theatrical form blending storytelling, music, and slapstick. Traditionally performed at Christmas, it features stock characters, audience participation, slapstick chases, cross-dressed roles like the Dame, and magical transformations. Conventions include exaggerated gestures, clear good-versus-evil plots, comic asides, and topical jokes. Pantomime’s mix of fantasy, humour, and spectacle keeps it a vibrant family tradition.

Street Dance

Street dance emerged in the late 20th century from African American and Latinx urban communities, developing through social gatherings, block parties, and hip-hop culture. Styles such as breaking, popping, locking, and later krumping and house dance grew from improvisation and community expression. Conventions include freestyle battles, cyphers, rhythmic footwork, musicality, individuality, and connection to the beat. Street dance values creativity, self-expression, and cultural identity within shared public spaces.

Physical Theatre

Physical theatre is a performance style that puts emphasis on the body as the primary storytelling tool, often blending movement, mime, dance, and gesture. Its conventions include expressive physicality, exaggerated or stylised movements, minimal spoken dialogue, and creative use of space and props. Ensembles often work collaboratively, using rhythm, timing, and visual imagery to convey emotions, relationships, or abstract concepts, prioritising visual impact over spoken.

Ballet

Ballet is a classical dance form originating in the Italian Renaissance and developed in France and Russia, characterised by formal technique, grace, and precision. Conventions include turnout, pointe work, flowing arm movements, and structured positions of the feet and arms. Ballet often tells stories or expresses emotions through choreographed sequences, pas de deux (dance for two), and ensemble work. Costumes, theatrical staging, and musical accompaniment enhance its elegance and narrative clarity.

Naturalism

Naturalism is a theatrical style emerging in the late 19th century, influenced by realism and it aims to depict life accurately and objectively. Conventions include detailed, realistic sets and props, authentic dialogue, everyday costumes, and plausible, often socially-focused plots. Actors adopt naturalistic gestures and speech, emphasising cause-and-effect in character behaviour. Naturalism seeks to mirror real life on stage, highlighting social issues, human struggles, and the influence of environment and society life.

Greek Theatre

Greek theatre, originating in 5th-century BCE Athens, combined storytelling, music, and ritual to honour the gods, especially Dionysus. Conventions include the use of masks, a chorus to comment on action, stylised gestures, and formalised speeches. Performances took place in large open-air amphitheatres with minimal sets. Themes often explored fate, morality, and human suffering. The structure followed clear plots with prologue, episodes, blending spectacle, poetry, and communal experience. The chorus is still used today.



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Religious Education

Heart - Ambition - Respect - Tenacity

7.01: Religion Locally and Nationally



Key Vocabulary

1	diversity	Differences between a group or setting.
2	Christianity	The religion that Christians follow.
3	Islam	The religion that Muslims follow.
4	Judaism	The religion that Jewish people follow.
5	Hindu Dharma	The religion that Hindus follow.
6	Sikhi	The religion that Sikhs follow.
7	Buddhism	The religion that Buddhists follow.
8	Humanism	A non-religious tradition followed by Humanists .
9	migration	The movement of people from one place to another.
10	persecution	Unfair or cruel treatment over a long period of time because of race, religion or political beliefs.
11	census	An official survey of the people who live in a country.

The Census Data and Key Changes








In 2021,

- More people described themselves as religious than non-religious.
- The largest religious group was Christianity, followed by Islam and Hindu Dharma.

Between 2001 and 2021,

- The number of people choosing to answer the question increased.
- The number of people reporting 'no religion' increased.
- The number of people reporting Muslim, Hindu, Sikh and Buddhist increased.
- The number of people reporting Christian decreased.

Religious and Non-Religious Symbols and Buildings

Follower	Symbol	Building
Christian	 Cross	church
Jewish	 Star of David	synagogue
Muslim	 Crescent Moon	mosque
Hindu	 Aum	mandir
Sikh	 Khanda	gurdwara
Buddhist	 Dharma Wheel	temple
Humanist (non-religious)	 Happy Human	(various)

Tools for Studying Religion


Social sciences are a group of subjects that are interested in how people live together in a society. Social scientists study how people change society and how society changes them.

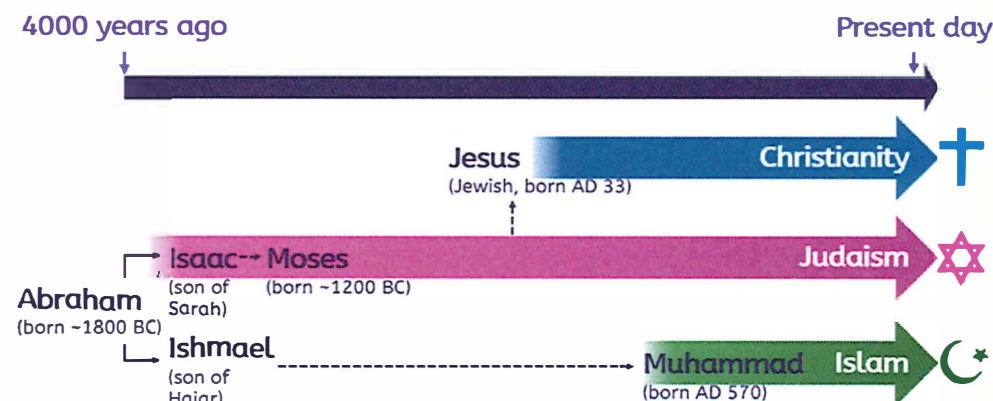
Social scientists collect data in a range of ways, including surveys like the census, as well as looking at evidence of religion in a community's buildings.



7.02: The Origins of Abrahamic Faiths

Key Vocabulary

1	Abrahamic faith	one of three faiths that are all linked by Abraham: Judaism, Christianity and Islam.
2	monotheism	the belief that there is only one God
3	polytheism	the worship of or belief in more than one god
4	covenant	an agreement between two sides (between humans and God)
5	sin	an action that is believed to go against the laws of God
6	idol	objects or images that represent gods
7	atonement	making up for something that someone has done wrong
8	sacrifice	to give up something valuable in order to gain something else
9	sermon	a talk about a religious or moral subject given by a leader in the religion
10	prophet	someone chosen by God to say the things God wants them to tell people
11	resurrection	coming back to life after someone has died
12	theology 	the study of God and ideas about God.
13	theologian	someone who studies theology, who might look at how holy texts and ideas about God influence people's beliefs and actions.



Holy Books introduced

The Torah	Holiest scripture for Judaism. The word means "law" in Hebrew. It was written by Moses. It is also important in Christianity and Islam.
The Qur'an	Holiest scripture for Islam. The word means "recite" in Arabic. It was revealed to the Prophet Mohammed.

The Covenant and the Abrahamic Faiths

Abraham is a monotheist and worships only one God. God promises to look after Abraham and his descendants because of this, and that his descendants will be a blessing to the world. Abraham has two sons, Isaac (who Moses and Jesus are descended from) and Ishmael (who Muhammad is descended from). Moses is given the Ten Commandments as part of the covenant. Christians believe Jesus is part of the covenant being fulfilled. Muslims believe prophecy is a part of the covenant.





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French

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1.1.1 Salut, comment t'appelles-tu? - Hi, what's your name?

Bonjour	Hello
Salut	Hi
Merci	Thank you
Comment t'appelles-tu ?	What is your name?
Je m'appelle...	I'm called...
Comment il/elle s'appelle?	What is he/she called?
Elle/il s'appelle...	S/he is called...
Au revoir	Good-bye

1.1.3 Quel âge as-tu? Quel âge a-t-elle/il? - How old are you? How old is she/he?

Quel âge as-tu ?	How old are you?
J'ai ... ans.	I am ... years old.
Quel âge a-t-elle/il?	How old is she/he?
Elle/il a ... ans.	She/he is ... years old.

1.2 Quelle est la date de ton anniversaire? - When is your birthday ?

Mon anniversaire est le...	My birthday is...
Premier deux/trois	First of... second/third
Mon anniversaire est le cinq mars	My birthday is the 5 th March

1.1.4 Où habites-tu? Quelle est ta nationalité? - Where do you live? What's your nationality?

Où habites-tu?	Where do you live?
D'où viens-tu ? Quelle est ta nationalité?	Where do you come from? What nationality are you?
J'habite	I live
à (+ name of town/city)	In (+ name of town/city)
en/au/aux (+ country)	In (plus country)
En... Angleterre/Écosse/Irlande du Nord/France/ Espagne/Allemagne...	In England/Scotland/Northern Ireland/France/Spain/ Germany...
Au Pays de Galles/Portugal/Canada	In Wales/in Portugal/in Canada
Aux États-Unis/aux Pays-Bas	In the USA/in the Netherlands
Je suis... anglais(e)/écossais(e)/gallois(e)/ nord-irlandais(e)...	I am... English/Scottish/Welsh/Northern Irish...
Je parle... français/espagnol/allemand/arabe	I speak... French/Spanish/German/Arabic
Je veux parler...	I want to speak...

1.3 Qu'est-ce que tu aimes faire? - What do you like doing? Qu'est-ce que tu n'aimes pas faire? - What don't you like doing?

J'aime (+infinitive/noun with article) J'aime danser / J'aime le chocolat	I like I like dancing/I like chocolate
Je n'aime pas (+infinitive/noun with article) Je n'aime pas chanter	I don't like I don't like singing
J'adore (+infinitive/noun with article)	I love
Je déteste (+infinitive/noun with article)	I hate
Je préfère (+ infinitive/noun with article)	I prefer
Jouer (au foot/au tennis/au rugby/au golf)	To play (football/tennis/rugby/golf)
Jouer sur mon Xbox	To play on my Xbox
Faire du sport	To play (to do) sport
Manger (de la pizza / du chocolat)	To eat (pizza/chocolate)

2.1 Parle-moi de ta famille - Tell me about your family

Dans ma famille	In my family
Il y a	There is/are
Ma mère/Ma belle-mère	My mum/step mum
Ma sœur	My sister
Ma grand-mère	My grandma
Mon père/Mon beau-père	My dad/step dad
Mon frère	My brother
Mon grand-père	My grandad
Mes frères et sœurs	My brothers and sisters
Elle/il s'appelle...	S/he is called...
Elle/il a...ans	S/he is ... years old

2.2.1 Tu es comment? - What are you like?

J'ai les yeux ...(bleus/verts/noisette/marron)	I have ...(blue/green/hazel/brown) eyes.
J'ai les cheveux... (blonds/roux/gris/noirs/bruns)	I have ... (blonde/red/grey/black/brown) hair.
Longs	Long
Courts	Short
Raides	Straight
Ondulés	Wavy
Bouclés/Frisés	Curly
Je suis.../Je ne suis pas...	I am.../I am not...
Grand(e)	Tall
Petit(e)	Small
Mince	Slim
Gros(se)	Big/fat
Drôle/Marrant(e)	Funny

2.2.2 Décris ton père/ton frère/ta mère/ta sœur - Describe your Dad/Brother/Mum/Sister

Ton/ta/tes	Your
Mon père a ...	My dad has...
Mon père est.../mon père n'est pas...	My dad is.../my dad isn't...
Elle a.../il a... (...ans/les cheveux.../les yeux...)	He has/She has...(...years/ ...hair/ ...eyes)
Elle est... /il est... grand/grande	He is/She is tall
Elle/il aime... (+ noun or infinitive) Elle aime le tennis/Il aime jouer au tennis	He/she likes She likes tennis/He likes to play tennis
Elle/il préfère... (+ noun or infinitive)	S/he prefers
Elle/il porte	S/he wears
Une barbe	A beard
Chauve	Bald

My Family

2.3 Qu'est-ce que tu aimes faire? Qu'est-ce qu'elle/il aime faire? - What do you like doing? What does s/he like doing?

J'aime (+ infinitive/noun with article)	I like...
Elle/il aime (+ infinitive/noun with article)	S/he likes...
J'adore (+ infinitive/noun with article)	I love...
Elle/il adore (+ infinitive/noun with article)	S/he loves...
Je déteste (+ infinitive/noun with article)	I hate...
Elle/il déteste (+ infinitive/noun with article)	S/he hates...
Je n'aime pas (+ infinitive/noun with article)	I don't like...
Elle/il n'aime pas (+ infinitive/noun with article)	S/he doesn't like...
Je préfère (+ infinitive/noun with article)	I prefer...
Elle/il préfère (+ infinitive/noun with article)	S/he prefers...

2.4.1 As-tu des animaux? Décris ton animal - Have you got any pets? Describe your pet.

J'ai...	I have...
Un chat/deux chats	A cat/two cats
Un chien/deux chiens	A dog/two dogs
Un lapin/deux lapins	A rabbit/two rabbits
Un cochon d'Inde/deux cochons d'Inde	A guinea pig/two guinea pigs
Un poisson rouge/deux poissons rouges	A goldfish/two goldfish
Un oiseau/deux oiseaux	A bird/two birds
Un serpent/deux serpents	A snake/two snakes
Un cheval/deux chevaux	A horse/two horses
Une tortue/deux tortues	A turtle/two turtles
Une araignée/deux araignées	A spider/two spiders
Qui s'appelle...	Who is called...
Qui s'appellent...	Who are called...
Elle/il est...	S/he is...

2.4.2 Quels animaux préfères-tu/veux-tu? - What animals do you like/do you want?

Je préfère les...(chiens/chats/chevaux/lapins/tortues/serpents/cochons d'Inde/oiseaux/araignées)	I prefer (dogs/cats/horses/rabbits/turtles/snakes/guinea pigs/birds/spiders)
Car elle/il sont...	Because they are...
Mon animal préféré est le ...	My favourite animal is...
À l'avenir	In the future
Je veux avoir...	I want to have...



Hartshill Academy

The best in everyone™

Part of United Learning

Year 7

Spanish

Heart - Ambition - Respect - Tenacity

The Basics

1.1.1 Hola, ¿Qué tal?

Hola	Hello
Buenos días/buenas tardes	Good morning/afternoon
Gracias	Thank you
¿Cómo te llamas?	What's your name?
Me llamo	My name is...
¿Cómo se llama?	What is s/he is called?
Se llama...	S/he is called...
Adiós/hasta luego	Good-bye

1.1.3 ¿Cuántos años tienes? - How old are you? How old is he/she?

¿Cuántos años tienes?	How old are you?
Tengo ... años.	I am ... years old.
¿Cuántos años tiene?	How old is s/he?
Tiene ... años.	S/he is ... years old.

1.2 ¿Cuándo es tu cumpleaños? - When is your birthday?

Mi cumpleaños es el...	My birthday is on...
Primero/uno de Dos/tres/cuatro de...	Second/third/fourth of...
Mi cumpleaños es el cinco de marzo	My birthday is the 5 th March

1.1.4 ¿De dónde eres? ¿Dónde vives? - Where are you from? Where do you live?

¿Dónde vives?	Where do you live?
¿De dónde eres? ¿Cuál es tu nacionalidad?	Where are you from? What is your nationality?
Vivo en... Inglaterra/Escocia/Irlanda del Norte/Gales/Francia/ España/Alemania/Portugal/Italia/Los Estados Unidos (EEUU)	I live in... England/Scotland/Northern Ireland/Wales/France/Spain /Germany/Portugal/Italy/United States (USA)
Soy...	I am...
inglés/inglesa	English
escocés/escocesa	Scottish
galés/galesa	Welsh
irlandés/irlandesa	Irish
Hablo...	I speak...
español	Spanish
árabe	Arabic
francés	French
alemán	German
Me gustaría hablar...	I would like to speak...

1.3 ¿Qué (no) te gusta hacer? - What do you (not) like doing?

Me gusta (+ infinitive/noun with article) Me gusta bailar/el regeton	I like I like dancing/I like regeton
No me gusta (+ infinitive/noun with article) No me gusta cantar	I don't like I don't like singing
Me encanta (+ infinitive/noun with article)	I love
Detesto (+ infinitive/noun with article)	I hate
Prefiero (+ infinitive/noun with article)	I prefer
Jugar (al + sport)	To play
Jugar con la consola/a los videojuegos	To play my Xbox
Hacer deporte	To play - to do sport
Comer	To eat

My Family

2.1 Háblame de tu familia - Tell me about your family

En mi familia	In my family
Hay...personas	There are ... people
Mi madre/mi madrastra	My mum/step mum
Mi hermana	My sister
Mi abuela	My grandma
Mi padre/mi padrastro	My dad/stepdad
Mi hermano	My brother
Mi abuelo	My grandad
Mis hermanos	My brothers and sisters
Tiene ... años.	S/he is ... years old

2.2.2 Describe a tu madre/padre - Describe your mother/father

Tu/tus	Your
Mi padre tiene...	My dad has...
Mi padre es/mi padre no es...	My dad is.../my dad isn't...
Tiene	S/he has
Es	S/he is
A ... le gusta...	S/he likes
Prefiere	S/he prefers
Lleva	S/he wears
Barba	A beard
Bigote	A moustache
Gafas	Glasses
Pecas	Freckles
Aparato	Braces

2.2.1 ¿Cómo eres? - What are you like?

Tengo los ojos (azules/verdes/marrones)	I have ... (blue/green/brown) eyes.
Tengo el pelo (rubio/pelirrojo/gris/negro/castaño)	I have ... (blonde/red/grey/black/brown) hair.
Largo	Long
Corto	Short
Liso	Straight
Ondulado	Wavy
Rizado	Curly
Soy.../no soy...	I am.../I am not...
Muy	Very
Bastante	Quite
Un poco	A bit

My Family

2.3 ¿Qué te gusta hacer? ¿Qué le gusta hacer? - What do you like doing? What does s/he like doing?

Me gusta (+ infinitive/noun with article)	I like...
A... le gusta (+ infinitive/noun with article)	S/he likes...
Me encanta (+ infinitive/noun with article)	I love...
Le encanta (+ infinitive/noun with article)	S/he loves...
Detesto (+ infinitive/noun with article)	I hate...
Detesta (+ infinitive/noun with article)	S/he hates...
No me gusta (+ infinitive/noun with article)	I don't like...
No le gusta (+ infinitive/noun with article)	S/he doesn't like...
Prefiero (+ infinitive/noun with article)	I prefer...
Prefiere (+ infinitive/noun with article)	S/he prefers...

2.4.1 ¿Tienes mascotas? ¿Cómo es tu perro/gato? - Have you got pets? What is your dog/cat like?

Tengo ...	I have...
Un gato/dos gatos	A cat/two cats
Un perro/dos perros	A dog/two dogs
Un conejo/dos conejos	A rabbit/two rabbits
Una cobaya/dos cobayas	A guinea pig/two guinea pigs
Un pez/dos peces	A goldfish/two goldfish
Un pájaro/dos pájaros	A bird/two birds
Una serpiente/dos serpientes	A snake/two snakes
Un caballo/dos caballos	A horse/two horses
Una tortuga/dos tortugas	A turtle/two turtles
Una araña/dos arañas	A spider/two spiders
Que se llama...	Who is called...
Que se llaman...	Who are called...
Es...	S/he, it is...

2.4.2 ¿Qué animales prefieres/te gustaría tener o proteger? - What animals do you prefer? What animals would you like to have or protect?

Prefiero los (perros/gatos/ caballos/conejos/tortugas/ serpientes/cobayas/pájaros/arañas)	I prefer (dogs/cats/horses/rabbits/turtles/snakes/ guinea pigs/birds/spiders)
Porque son ...	Because they are...
Mi animal preferido es el...	My favourite animal is the...
En el futuro	In the future
Me gustaría tener/proteger	I would like to have/protect...
Animales/especies en peligro de extinción	Endangered animals/species