Hartshill Academy
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Year 9

Knowledge Organiser

Mid Assessments

will take place from

Thursday 8th January to Thursday 22nd January

Heart - Ambition - Respect - Tenacity

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Year 9

English

Heart - Ambition - Respect - Tenacity

Knowledge Organiser: Detective Genre Specific Vocabulary

1. Detective Fiction: Stories focused on solving a crime or mystery.
2. Mystery: Something that is difficult to understand or explain.
3. Withheld Information: Details kept secret to build suspense.
4. Deduction / Deduce: Using clues to figure something out.
5. Subvert: To go against or challenge expectations.
6. Tension: A feeling of suspense or excitement.
7. Resentment: Anger or bitterness about something unfair.
8. Angel in the House: A Victorian idea of a perfect, obedient woman.
9. The New Woman: A woman who challenges traditional roles.
10. Countenance: A person's face or expression.
11. Xenophobia: Fear or dislike of people from other countries.
12. The Other: Someone seen as different or outside the group.
13. Orientalism: A Western view that stereotypes Eastern cultures.
14. Symbolism: Using symbols to represent ideas.
15. Deceit: Lying or tricking someone.
16. Fiend: An evil or cruel person.
17. Analysis: Examining something in detail.
18. Idiosyncrasy: A strange or unique habit or feature.
19. Romanticising: Making something seem better or more attractive than it is.
20. Stereotype: A fixed idea about a group of people.
21. Comic Relief: Humour used to break tension.
22. Disreputable: Not respected or trusted.
23. Preposterous: Ridiculous or silly.
24. Duality: Having two different sides or parts.
25. Antipathy: Strong dislike.
26. Prejudice: Unfair opinion without facts.
27. Peril: Serious and immediate danger.
28. Ominous: Giving the impression something bad is going to happen.

Knowledge Organiser: Subject Vocabulary

1. Adjective: A word that describes a noun.
2. Adverb: A word that describes a verb, adjective, or another adverb.
3. Noun: A word that names a person, place, thing, or idea.
4. Pronoun: A word that replaces a noun (e.g., he, she, it).
5. Verb: A word that shows an action or state of being.
6. Comma: A punctuation mark used to separate parts of a sentence.
7. Dash: A punctuation mark used to show a break or pause.
8. Simple Sentence: A sentence with one independent clause.
9. Complex Sentence: A sentence with one independent clause and at least one subordinate clause.
10. Independent Clause: A group of words that can stand alone as a sentence.
11. Subordinate Clause: A group of words that cannot stand alone and depends on the main clause.
12. Clauses: Groups of words with a subject and verb.
13. Anaphora: Repeating a word or phrase at the beginning of sentences.
14. Focus Shift: Changing the focus or topic in writing.
15. Zoom in: Focusing on small details in writing.
16. Zoom out: Looking at the bigger picture in writing.
17. Pace: The speed at which a story or text moves.

18. Tone: The writer's attitude or feeling shown in the text.
19. Archetype: A typical example of a character or story pattern.
20. Protagonist: The main character in a story.
21. Antagonist: The character who opposes the protagonist.
22. First-Person Peripheral Narrator: A narrator who is a minor character in the story.
23. Narrative: The story or account of events.
24. Exposition: Background information given at the start of a text.
25. Characterisation (Implicit / Explicit): How a character is shown through actions or direct description.
26. Personification: Giving human qualities to non-human things.
27. Metaphor: A comparison saying something is something else.
28. Foreshadow / Foreshadowing: Hints about what will happen later.
29. Forebode: To predict something bad will happen.
30. Imagery: Descriptive language that creates pictures in the mind.
31. Semantic Field: A group of words related in meaning.
32. Allusion: A reference to another text or event.
33. Climax: The most exciting or important part of a story.
34. Resolution: How the conflict or problem is solved.
35. Narrative Perspective: The point of view from which the story is told.
36. Embedded Narrative: A story within another story.
37. Rising Action: Events leading up to the climax.
38. Falling Action: Events after the climax leading to the resolution.
39. Character Arc: How a character changes during a story.

Y9 Key Quotations

- "More than once during the years that I had lived with him in Baker Street I had observed that a small vanity underlay my companion's quiet and didactic manner."

- "I could not but observe that as she took the seat which Sherlock Holmes placed for her, her lip trembled, her hand quivered, and she showed every sign of intense inward agitation."

- "Holmes rubbed his hands, and his eyes glistened. He leaned forward in his chair with an expression of extraordinary concentration upon his clear-cut, hawklike features"

- "Small, dainty, well gloved. Dressed in the most perfect taste."

- "What a very attractive woman!"

- "my mind ran upon our visitor- her smiles, the deep rich tones of her voice, the strange mystery which overhung her life"

- "keep him out! For God's sake keep him out!"

- "a hairy face with wild cruel eyes and an expression of malevolence"

- "long thin nose and beady eyes gleaming like those of a bird. So swift and furtive were his movements, like a trained bloodhound picking a scent"

- "I assure you Holmes, I marvel at the means by which you obtain your results."

- "My dear boy, it's simplicity itself"

Knowledge Organiser: Transactional Writing

1. Rhetorical Questions: "Why should we accept this?"

2. Emotive Language: "devastating", "heartwarming", "unjust"

3. Alliteration: "powerful, passionate plea"

4. Facts & Statistics: "According to recent studies…"

5. Anecdotes: "Last year, I witnessed…"

6. Repetition: "We must act. We must change. We must care."

7. Anaphora: Repetition at the start of clauses. "We will fight. We will rise. We will win."

8. Hypophora: Answering the question. "Why should we care? Because this affects every one of us."

9. Allusion: Reference to well-known texts or events. "This is our Everest."

10. Hyperbole: Exaggeration for effect: "This is the greatest invention of all time!"

11. Antithesis: Contrasting ideas: "It's not the end, it's the beginning."

12. Tricolon: Three-part list: "Bold, brave, brilliant."

13. Direct Address: Speaking to the reader/audience: "You have the power to change this."

14. Imperatives: Commanding verbs: "Act now. Speak up. Make a difference."

15. Anecdotes: "Last year, I met a family who…"

16. Ethos – Builds credibility and trust: "As a teacher with 10 years of experience…"

17. Pathos – Appeals to emotion: "Imagine the pain of losing everything in a fire…"

18. Logos – Uses logic and evidence: "Studies show that 70% of teens prefer…"

Transactional Writing: Structure

1. Headline/ice breaker/address –short sentence or rhetorical question, perhaps a pun?

2. Introduction of viewpoint – who / what / when / why

3. First main argument – with an anecdote (a story example)

4. Second main argument – with a quote or reference from someone in authority, perhaps a credible study with facts and figures

5. Third main argument – ridicule any opposing view whilst reaffirming your first and second arguments

6. Conclusive statement – hypophora? Rhetorical question? Leave your audience thinking.

Transactional Writing: Formats

Letter	Speech	Article	Review	Report
Use a formal greeting (e.g., Dear Sir/Madam) Organise ideas into clear paragraphs End with a formal closing (e.g., Yours sincerely, Yours faithfully)	Address the audience directly Use rhetorical devices and emotive language Structure with a strong opening, developed body, and memorable ending	Start with an engaging headline Use a hook in the Introduction Organise ideas with subheadings Include persuasive techniques and a clear conclusion	Introduce the item being reviewed Evaluate with detail and examples Share personal opinion End with a recommendation	Use a clear title and formal tone Include an introduction, findings, and conclusion Use bullet points or structured paragraphs

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Year 9

Maths

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KPI 9.01 Decimals Manipulation

| 1) Multiplying decimals	1) Remove the decimal points. 2) Multiply. 3) Insert the same number of decimal points in the answer as in the question. 0.5 x 0.3 5 x 3 = 15 0.5 x 0.3 = 0.15	2) Dividing a decimal by an integer	$0.72 \div 6$ $0.972 \div 8$ 0.12 0.1215 6 ⟌ 0.72 8 ⟌ 0.9720
		3) Dividing an integer by a decimal	1) Write as a fraction. 2) Form an equivalent fraction. 3) Divide.

KPI 9.02 Estimation and Limits of Accuracy

1) ≈	"approximately equal to"	2) Truncation	Ignoring all decimal places past a certain point without rounding.
3) Significant figures	The total number of digits in a number, not counting the zeros at the beginning of a number or at the end of a decimal number. 345 000 has 6 significant figures. 0.3047 has 4 significant figures.	4) Estimate	Find approximate answer by calculating with numbers rounded to one significant figure.
5) Error Intervals	The range of values (between the upper and lower bounds) in which the precise value could be. **least possible value ≤ x < greatest possible value**		

KPI 9.03 Related Calculations

19 x 18 = 342	108 ÷ 9 = 12
19 x 180 = 3420	1080 ÷ 9 = 120
190 x 18 = 3420	108 ÷ 90 = 1.2
190 x 180 = 34200	108 ÷ 0.9 = 120
1900 x 180 = 342000	108 ÷ 0.09 = 1200

KPI 9.04 HCF and LCM of Large Numbers

1) Prime numbers	A prime number has two distinct factors; 1 and itself. 2 is the only even prime number. 1 is not a prime number. The first ten prime numbers are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29		
2) Factor	Any whole number that divides exactly into another number leaving no remainder. Factors of 20 are: 1, 2, 4, 5, 10, 20	**3) Multiple**	The result of multiplying a number with a whole number. (times tables!) The multiples of 7: 7, 14, 21, 28, 35, 42, 49, 56, 63, 70 ...
4) HCF–Venn diagram	 HCF of 80 and 24 = 2 x 2 x 2 = 8	**5) LCM–Venn diagram**	 LCM of 80 and 24 = 2 x 2 x 2 x 2 x 3 x 5 = 240
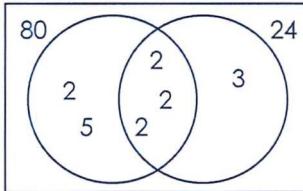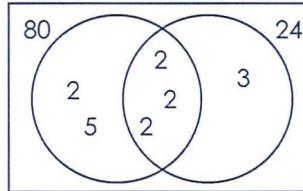
KPI 9.05 Fraction Calculations

1) Writing one number as a fraction of another	Write £15 as a fraction of £25. $$\frac{15}{25} = \frac{3}{5}$$	**2) Reciprocal**	Reciprocal of $\quad 7 \rightarrow \dfrac{1}{7}$ Reciprocal of $\quad \dfrac{2}{3} \rightarrow \dfrac{3}{2}$
3) Fractions of an amount	Divide the amount by the denominator and then multiply the result by the numerator.		
4) Add/Subtract fractions	Make the denominators the same (find the LCM). Use equivalent fractions to change each fraction to the common denominator. Add/subtract the numerators only.	$\dfrac{2}{7} + \dfrac{2}{5} = \dfrac{10}{35} + \dfrac{14}{35} = \dfrac{24}{35}$	
5) Multiplying fractions	Multiply the numerators. Multiply the denominators. Simplify where possible.	$\dfrac{4}{5} \times \dfrac{3}{8} = \dfrac{12}{40} = \dfrac{3}{10}$	
6) Dividing fractions	Keep the first fraction the same. Change the second to its reciprocal. Multiply the fractions. Simplify/convert to mixed number where possible.	$\dfrac{4}{5} \div \dfrac{3}{8} = \dfrac{4}{5} \times \dfrac{8}{3} = \dfrac{32}{15} = 2\dfrac{2}{15}$	

KPI 9.06 Algebraic Manipulation

1) 2a	2 x a	2) ab	a x b
3) a^2	a x a	4) $3a^2$	3 x a x a
5) a subtracted from b	b - a	6) a less than b	b - a
7) a divided by b	$\frac{a}{b}$	8) b divided by a	$\frac{b}{a}$
9) 4 times smaller than a	$\frac{a}{4}$ or $a \div 4$	10) 4 times larger than a	4 x a → 4a
11) 5th power of a	a^5	12) Variable	A letter used to represent any number.
13) Coefficient	The number to the left of the variable. This is the value that we multiply the variable by. $4x$ → The coefficient of x is 4. x → The coefficient of x is 1.	14) Term	A single number, variable or numbers and variables multiplied together.
15) Simplifying	An expression can be simplified by grouping like terms. E.g. 2a + b² - 4b + 7a = 9a+b² - 4b	16) Identity	An identity is an equation which is always true no matter what value of the unknown is substituted. E.g. 3x - 15 = 3 (x - 5)

KPI 9.07 Index Laws

1) Multiplication law	$a^m \times a^n = a^{m+n}$ Same base numbers, ADD the powers.	2) Division law	$a^m \div a^n = a^{m-n}$ Same base numbers, SUBTRACT the powers.
3) Power to a power	$(a^m)^n = a^{m \times n}$ MULTIPLY the powers.	4) Raising a fraction by a power	$(ab)^n = a^n \times b^n$ Raise each number or variable to the same power.
5) Power of 0	$a^0 = 1$. Any number or variable to the power of zero equals 1.	6) Negative powers (integers)	$a^{-1} = \frac{1}{a}$ $\quad a^{-2} = \frac{1}{a^2}$ $\quad a^{-n} = \frac{1}{a^n}$ A negative power represents the reciprocal.
7) Positive unit fractions	$a^{\frac{1}{2}} = \sqrt{a}$ $\quad a^{\frac{1}{3}} = \sqrt[3]{a}$ $\quad a^{\frac{1}{n}} = \sqrt[n]{a}$	8) Negative unit fractions	$a^{-\frac{1}{2}} = \frac{1}{\sqrt{a}}$ $\quad a^{-\frac{1}{3}} = \frac{1}{\sqrt[3]{a}}$ $\quad a^{-\frac{1}{n}} = \frac{1}{\sqrt[n]{a}}$
9) Positive non-unit fractions	$a^{\frac{m}{n}} = (\sqrt[n]{a})^m$	10) Negative non-unit factions	$(a)^{-\frac{m}{n}} = \left(\frac{1}{a}\right)^{\frac{m}{n}} = \left(\sqrt[n]{\frac{1}{a}}\right)^m$

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.	$10^{-1} = \frac{1}{10} = 0.1$ $\qquad 10^{-4} = \frac{1}{10000} = 0.0001$ $10^{-2} = \frac{1}{100} = 0.01$ $\qquad$ 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	$1.09 \times 10^3 = 1090$ $8.77 \times 10^{-6} = 0.00000877$	

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Science

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A food **chain** shows the different species of an organism in an <u>ecosystem</u>, and what eats what.

A food chain always starts with a **producer**.

A food chain ends with a **consumer**.

Here is an example of a simple food chain:

| Consumer |
| Tertiary consumer |
| Carnivore |

| Consumer |
| Secondary consumer |
| carnivore |

| Consumer |
| Primary consumer |
| herbivore |

| Producer |
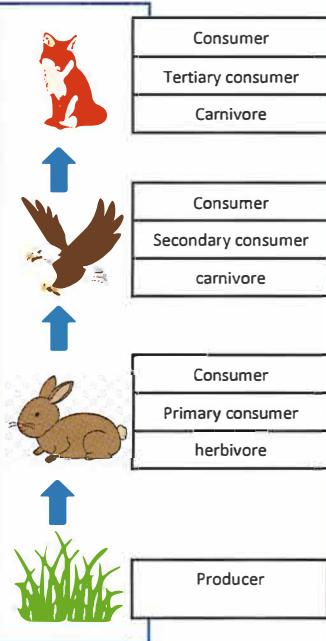
When all the food chains in an ecosystem are joined up together, they form a **food web**.
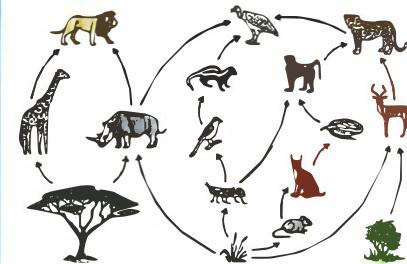
Food webs are just several food chains joined together. Some of the food chains in this food web are:
Tree → giraffe → lion
Tree → rhino → lion
Grass → rhino → eagle
Grass → grass hopper → small bird → racoon → eagle

Ecological relationships and classification

When dead plant and animal materials are broken down by **decomposers**, it is called **decay**.

Decay releases the nutrients locked up in the dead material, back into the ground, so that it can be used for new plant growth.

This is important because there is only a finite amount of nutrients on our planet. Decay means that the nutrients can be constantly recycled.

The ideal conditions for decay are:

1) Plenty of oxygen, so that decomposers can respire.
2) Warm temperatures so that decomposers are more active.
3) Some moisture as this allows important chemical reactions to take place.

Bioaccumulation is the build up of toxic material through a food chain, often with devastating effects for the top carnivore.

● = toxic particle

Adaptations are features that help organisms compete better and survive in their environment. For example:

| Polar bear | White coat → camouflage
Big feet → spread weight to reduce pressure on snow/ice
Thick layer of fat → insulation & food store
Greasy fur → water runs off easily after swimming |
| Camel | Hump that stores fat → reduce heat loss over rest of the body
Sandy colour → camouflage
Big feet → spread weigh to reduce pressure on sand |

Natural selection
- Individuals in a species show a wide range of genetic **variation** due to **mutations**.
- Individuals who are best adapted to the environment are **more likely** to survive and reproduce.
- The genes that allow these individuals to be successful are **inherited** by their offspring.
- Over many generations these small differences add up to the new evolution of species.

Classification is the sorting out of organisms into groups based on their similarities.

Today's classification system is designed by Carl Linnaeus
Organisms were divided into kingdoms.
Each kingdom was then sub-divided into smaller groups (phylum) and these into even smaller groups (class), so on and so forth.
Species are the smallest group.

Kingdom
Phylum
Class
Order
Family
Genus
Species

Many organisms with few similar characteristics

One type of organism, **with** many similar characteristics

Extinction
Changes in the environment may leave individuals less well adapted to compete for resources (eg food, water and mates). If an entire species is unable to compete successfully and reproduce it will lead to extinction.

Here are some of the changes in the environment that can cause a species to become extinct:

- a new **disease**;
- a new **predator**;
- a change in the physical environment (eg climate change);
- competition (from another species that is better adapted, including competition from humans).

Factors that can affect the population of individual organisms
Temperature (land/water)
Seasonal changes
Rainfall
Increased predation/hunting
Deforestation
pH of soil/water
Use of chemicals in farming
Disease
Pollution
New predators

Might lead to:
- a shortage of food
- loss of habitat
- lack of partners to reproduce with
- Less water

Estimating populations
Method:
Count the numbers of a species within a small section of the area being sampled by:

1. Using a **quadrat** to make multiple random small samples.

2. A mean is then calculated and multiplied up to the whole area.

Biodiversity
It is important to conserve the variety of living organisms on Earth because:

- moral and cultural reasons;
- In the future, plant species might be identified for medicines;
- keeps damage to food chains and food webs to a minimum;
- protects our future food supply.

Seeds are carefully stored in seed **banks** so that new plants may be grown in the future.
Seed banks are an example of a **gene bank**. Gene banks are used to preserve genetic animals and plant material for the future.

Bar magnets

Most materials are not magnetic.
A magnetic material can be **magnetised** or will be attracted to a magnet.
Not all metals are magnetic.
These metals are magnetic:
* Iron
* Cobalt
* nickel
* steel (because it contains iron).

A bar magnet is a **permanent magnet** - its magnetism cannot be turned on or off.

A bar magnet has two magnetic poles:
* north pole (or north-seeking pole)
* south pole (or south-seeking pole)

Attract and repel
Opposite poles will attract, and like poles will repel.

Testing for magnets
You can only show that an object is a magnet if it repels a known magnet.

8BE Electricity and Magnetism

Electromagnets
When an electric current flows in a wire, it creates a magnetic field around the wire.
The magnetic field around an electromagnet is the same as around a bar magnet.

We can make the electromagnet stronger by:
* wrapping the coil around a piece of iron (such as an iron nail)
* adding more turns to the coil
* increasing the current flowing through the coil

Too much current can cause heating.

Advantages of electromagnets:
* they can be turned on and off
* the strength of the magnetic field can be varied
* reversing the current (turning the battery around), reverses the direction of the field (swaps the poles)

Magnetic fields
A magnet creates a magnetic field around it (you cannot see a magnetic field)
A **non-contact force** is exerted on a magnetic material brought into a magnetic field. It is **non-contact force** because the magnet and the material do not have to touch each other.

We represent magnetic fields using diagrams
* each field line has an arrow from **north to south**;
* the field lines are more concentrated at the poles;
* the magnetic field is strongest at the poles.
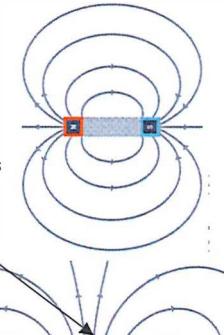
Field lines also show what happens to the magnetic fields of two magnets during attraction or repulsion.

DC motors
Passing an electric current through a wire in a field will make the wire move.
This is called the **motor effect**.

The diagram shows a simple electric motor:
* there is an electric current in the coil of wire
* this generates a magnetic field;
* which interacts with the fixed magnets;
* this makes the coil rotate

The speed of the motor can be increased by:
* increasing the **strength of the magnetic field**
* **increasing the current** flowing through the coil

The Earth's magnetism
The Earth behaves as if it contains a giant bar magnet.
Its magnetic field lines are most concentrated at the poles.
This magnetic field can be detected using magnetic materials or magnets.
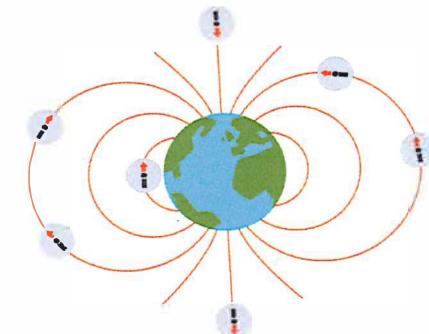
The compass
A compass comprises:
* a magnetic needle mounted on a pivot (so it can turn freely)
* a dial to show the direction

If the needle points to the N on the dial, you know that the compass is pointing north.
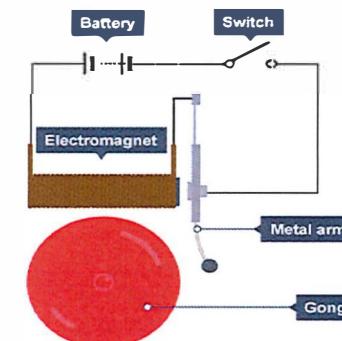
Electric bell
Electric bells like the ones used in most schools also contain an electromagnet.

Electric charge
Some particles carry an electric charge.
In electric wires these particles are **electrons**.

Electric current
An electric current is a flow of charge, and in a wire this will be a flow of electrons.

We need two things for an electric current to flow:
- something to transfer energy to the electrons, such as a battery or power pack
- a complete circuit for the electrons to flow through

Incomplete circuit | No battery | Complete circuit

Switch | Cell | Battery

Lamp | Voltmeter | Ammeter

Resistor | Variable resistor | Motor

Circuit symbols

Cell | Battery
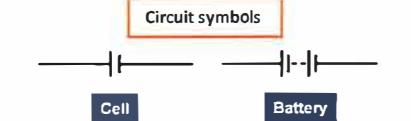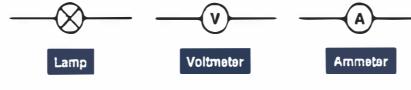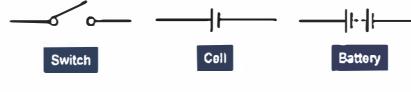
Conductors and insulators of electricity
Different materials have different resistances:
- an electrical **conductor** has a **low resistance**;
- an electrical **insulator** has a **high resistance**.

Series circuits
In a series circuit, the components are connected in series (one after the other) on a single loop of wires.

The current is **the same** everywhere in the circuit.

Current is **not** used up by the components.

Adding cells, increases the current.

A 0.3 A   0.3 A A

0.3 A   0.3 A

A 0.5 A   A 1.0 A   A 1.5 A

A 6 A   2 A (A)   2 A (A)   2 A (A)
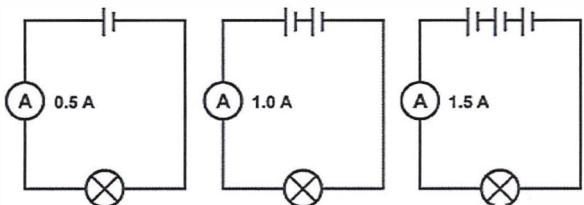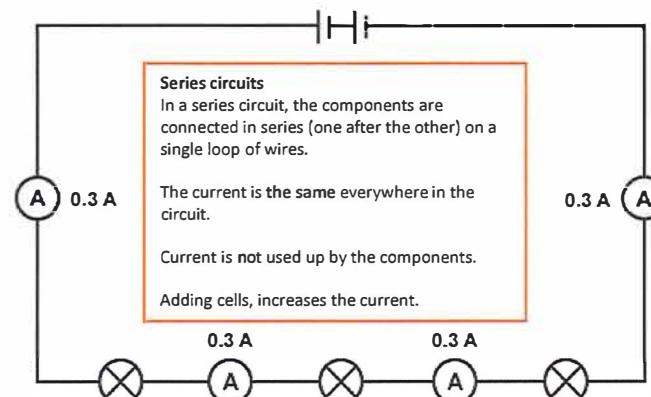
8BE Electricity and Magnetism

Parallel circuits
In a parallel circuit, the components are connected on different branches of the wire.

When components are connected in parallel, the current is **shared** between the components.

If a bulb breaks in a parallel circuit, the other bulb will remain lit.
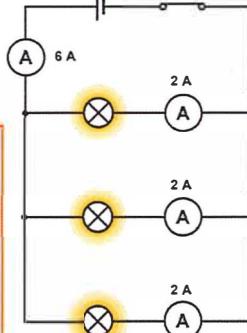
Conductors	Insulators
Metal elements	Most non-metal elements, e.g. sulfur, oxygen
Graphite (a form of carbon, a non-metal element)	Diamond (a form of carbon, a non-metal element)
Mixtures of metals, e.g. brass, solder	Plastic
Salt solution	Wood
Liquid calcium chloride	Rock

Current
The more charge that flows, the bigger the current.
Current is measured in amperes (**A**).
This can be shortened to amps.

Measuring current
We measure current using an **ammeter**.
It is connected in **series**.
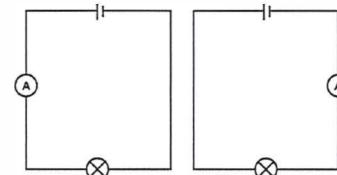
Potential difference
Potential difference is a measure of the difference in energy between two parts of a circuit.
The bigger the difference in energy, the bigger the potential difference.
Potential difference is measured in **volts (V)**.
It is sometimes called **voltage**.

Measuring potential difference
Potential difference is measured using a device called a voltmeter.
It is connected in **parallel**.
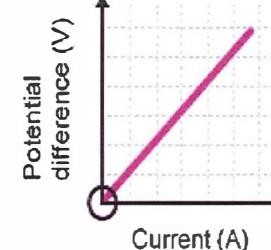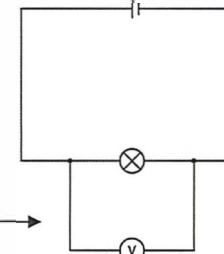
	Current	Potential difference
Unit	ampere, A	volt, V
Measuring device	Ammeter in series	Voltmeter in parallel
Circuit symbol of measuring device	A	V

Potential difference (V) vs Current (A)

Resistance
Wires and the components in a circuit reduce the flow of charge. This is called resistance.
The unit of resistance is the ohm (Ω).

Adding components
The resistance increases when you add more components in series.
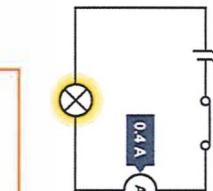
Calculating resistance
To find the resistance of a component, you need to measure:
- the potential difference across it;
- the current flowing through it.

The resistance is the ratio of potential difference to current. We use this equation to calculate resistance:

resistance = potential difference ÷ current

0.4 A

0.2 A

8BE Electricity and Magnetism
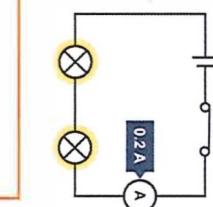
Atoms and electrons
All substances are made of atoms.
These are often called **particles**.
An atom has no overall electrical charge (**electrically neutral**);
Each atom contains even smaller particles called **electrons**.
Each electron has a negative charge.
- atom **gains** an electron, it becomes **negatively charged**.
- atom **loses** an electron, it becomes **positively charged.**
Electrons can move from one substance to another when objects are rubbed together.

Electron
Proton
Neutron

opposite charges attract

like charges repel

Forces from static electricity
A charged object creates an electric field (you cannot see an electric field).
If another charged object is moved into the electric field, a force acts on it.
The force is a non-contact force because the charged objects do not have to touch for the force to be exerted.

Repulsion and attraction
Two charged objects will:
- repel each other if they have like charges (they are both positive or both negative);
- attract each other if they have opposite charges (one is positive and the other is negative).

Attract and repel
Opposite charges will attract, and like charges will repel.

Electric fields
We represent electric fields using diagrams (just like with magnetic fields):
- each field line has an arrow from positive to negative;
- the field lines are more concentrated where the field is strongest.

Field lines also show what happens to the electric fields during attraction or repulsion.

Moving charges
When you rub two different materials against each other, they become electrically charged.
This only works for electrically insulated objects and not with materials like metals, which conduct.
and the duster becomes positively charged

rod becomes positive from losing electrons
perspex rod
electrons gained by the cloth
dry cloth
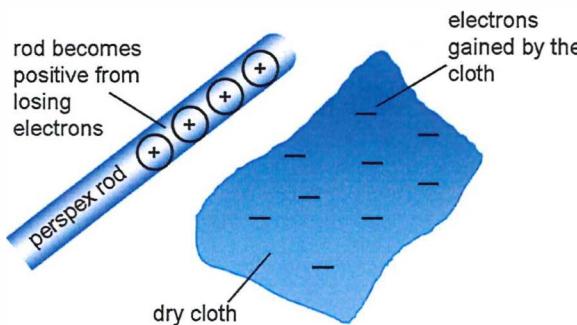
For example, if you rub an perspex plastic rod with a duster:
- electrons move from the rod to the duster
- the duster becomes negatively charged and the rod becomes positively charged

electrons gained by the rod
polythene rod
cloth becomes positively charged from losing electrons
dry cloth

The opposite thing happens with a polythene rod:
- electrons move from the duster to the rod
- the rod becomes negatively charged and the duster becomes positively charged

(a)   (b)

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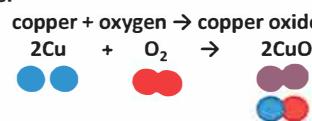
Two copper atoms (**2Cu**) react with **one oxygen molecule (O_2)** to produce **two units of copper oxide ($2CuO$)**

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**)

Pure metals Vs Alloy

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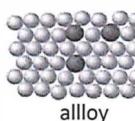
The rows of atoms in a pure metal can slide over each other easily.
In an alloy, the different sized atoms disrupt the layers so the atoms can't slide.
This makes alloys more useful than pure metals.

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 turn from colourless to a cloudy milky colour.

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** put in the test tube and listen for the gas to burn with a squeaky pop

Naming salts
Hydro**chloric** acid → metal **chlorides**
Sulfuric acid → metal **sulfates**
Nitric acid → metal **nitrates**
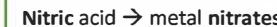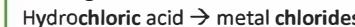
Calculating relative formula mass
Formula mass is calculated by adding together the mass number of each atom in a compound's chemical formula.

E.g. $MgCl_2$ A, Mg = 24   A, Cl = 35.5

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

There are 2 chlorines in the chemical formula

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

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

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

Reactivity

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
$$2CuO + C → 2Cu + CO_2$$
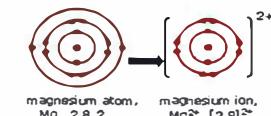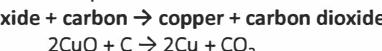
Why do metals react?
Metals react because they want to gain a full outer shell and become stable. They do this by losing their outer electron(s) to become positively charged ions

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

magnesium atom,   magnesium ion,
Mg 2,8,2 Mg^{2+} [2,8]$^{2+}$
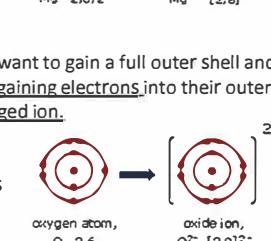
Why do non-metals react?
Non-metals react because they want to gain a full outer shell and become stable. They do this by gaining electrons into their outer shell to become negatively charged ion.

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

oxygen atom,   oxide ion,
O 2,6 O^{2-} [2,8]$^{2-}$

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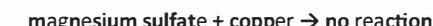
Carbon and metal extraction
Some metals can be extracted from their metal oxides using carbon **if the metal is less reactive than carbon**.

The metal is reduced – it has lost its oxygen

metal oxide + carbon → metal + carbon dioxide
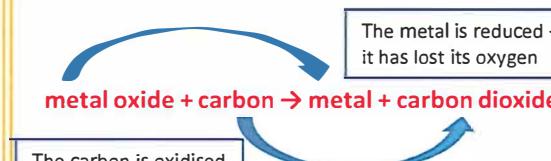
The carbon is oxidised – it has gained oxygen

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

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.

The elastic limit

effort • lever • pivot

Spring
Ruler
Masses

An experiment to investigate Hooke's Law

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)		(N)		(m)
(Ncm)				(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 lift heavy objects.

Forces in action

÷100
centimetres — metres
x100

÷1000
metres — kilometres
x1000

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

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.

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

Load 100 N
Effort 100 N
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):

Pivot
Effort
Load
Effort

- 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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Year 9

Computer Science

Heart - Ambition - Respect - Tenacity

Year 9: Computer Science Knowledge Organiser

	Key terms	
1	Computer	An electronic programmable device that stores, retrieves and processes data.
2	Device	A piece of electrical or mechanical equipment made for a particular purpose.
3	Program	A sequence of instructions written in a programming language that a computer can execute or interpret.
4	Software	A set of programs used to operate computers and perform specific tasks.
5	Hardware	The physical components of a computer.
6	CPU	Central Processing Unit - The part of the computer that interprets and carries out instructions.
7	Main memory	The part of the computer that stores data that is currently being used by the processor.
8	Secondary storage	The part of the computer that stores data long term that is not currently being used by the processor.
9	Input Device	Refers to input, any method of getting information into the computer – Keyboard, Mouse, Sensor, Microphone, Scanner, Touchscreen.
10	Output Device	Any method of getting data out of the computer – Monitor, Printer, Speakers, Touchscreen.
11	Storage Device	A hardware component that allows you to store and retrieve digital information on your computer e.g. SSD, HDD, USB,
12	E-safety	The safe and responsible us of technology. Also called cyber safety, internet safety, online safety.
13	Grooming	Grooming an adult pretends to be someone else and communicates with a child with the intention of building an emotional connection with the child to gain their trust for inappropriate sexual purposes or exploitation.
14	HDD	Hard Disk Drive – A type of storage that uses a spinning disk to store and retrieve data. It is non-volatile.
15	SSD	Solid State Drive - A non-volatile type of storage that uses flash memory to store data. Has no moving parts, works silently as there are no spinning disks.
16	RAM	Random Access Memory - A type of computer memory that stores data temporarily while the computer is running. This is volatile and will be deleted when the computer is turned off.
17	ROM	Read Only Memory - A type of non-volatile memory used to store essential data and instructions permanently. It retains information even if power is turned off.
18	Volatile	A type of storage that loses its contents when power is turned off, e.g RAM
19	Non-volatile	A type of storage that retains data even if power is turned off, e.g ROM
20	Cyberbullying	Bullying that takes place over digital devices such as mobile phones, tablets, computers

Year 9: Computer Science Knowledge Organiser

E-Safety

What is e-safety?

The safe and responsible use of technology.

What is social media?

The use of websites and applications that enable users to create and share content or to participate in social networking

Privacy Settings

Social Media is still okay to use - you just need to be careful what you post!

To help with this, all social media website or apps have something called privacy setting. You get to choose who can see your information: -

Public – Anyone can see your profile and anything you post. They do not have to be your friend.

Friends only – Only friends you have accepted or have accepted you will be able to see your profile.

Friends of Friends – Again, your friends will be able to see your profile however, any of their friends will also be able to see this.

Only me – No one else but yourself will be able to see your profile or anything you post.

Cyberbullying

The use of electronic communication to bully a person. Typically by sending messages of an intimidating or threatening nature.
Most common over SMS, Text messages, Social Media, e-mail, online gaming

Grooming

When an adult pretends to be someone else and talks to a child.
They usually say they are about the same age, have similar interests and live in a similar location. They usually pretend to be a friend and say nice things to get on the good side of the child.

Sexting

The use of technology to share personal sexual content.
When you are under 18, it is illegal for anyone to take or have a sexual photo of you, even a selfie.

Passwords

A strong password must include:
- 8 or more characters
- Capital letter/s
- Lower case letter/s
- A number/s
- A symbol/special character
- Be hard to guess
- Not your name, nick name or anything easy to guess

4cs of E-safety

Content	Contact	Conduct	Commerce
Being exposed to illegal, inappropriate or harmful content for example pornography, fake news, racism, misogyny, self-harm, suicide, anti-Semitism, radicalisation and extremism.	Being subjected to harmful online interaction with other users for example; peer pressure, commercial advertising and adults posing as children or young adults with the intention to groom or exploit them.	Online behaviour that increases the likelihood of or causes harm; for examples, making, sending and receiving explicit images and online bullying.	Risks such as online gambling, inappropriate advertising, phishing and financial scams. If you feel at risk, report any concerns to a trusted adult or online.

Digital Footprint

The trail of information and data that you leave online or while using digital communication. This includes:
- Favourite apps
- Website visited
- Messages sent
- Videos downloaded
- Pictures uploaded
- Games played
- Music downloaded
- Comments posted

Contact the NSPCC Helpline

You can contact our Helpline by calling 0808 800 5000 or emailing help@NSPCC.org.uk

Are you concerned? Where to report:

https://www.childline.org.uk/

- Text SHOUT to 85258 to contact the Shout textline
- Call HOPELINE247 on 0800 068 4141 or the NHS on 111 and select option 2
- Contact Childline by using 1-2-1 chat or calling 0800 1111

Year 9: Computer Science Knowledge Organiser

Computer Systems - Hardware and Software

Hardware

Mouse - External hardware

Motherboard - Internal Hardware

Hardware can be **internal** (inside the PC/laptop/mobile phone case) or **external** (outside the case).

External hardware examples:
- Mouse
- Keyboard
- Monitor
- Headphones
- Speakers
- Webcam

Internal hardware examples:
- CPU (Central processing unit) / Processor
- Motherboard
- GPU (Graphics processing unit)
- Hard drive
- RAM (Random access memory)
- Power supply (can be external in some devices)

Software
Can be placed into two categories:
System Software and **Application Software**.

Application software: Designed to perform tasks that the user wants to complete. Examples include:
- Word processors
- Spreadsheet software
- Presentation software
- Web browsers
- Games

System software
The computer's operating system is an example of system software. Examples:

- Windows
- macOS
- iOS
- Android
- Linux

Memory
Primary Memory
RAM – Random Access Memory
Temporarily stores data of running applications.

ROM – Read Only Memory
Contains permanent instructions for booting the computer.

Secondary Memory
SSD, HDD - Long term storage that retains data even when the computer is turned off.

Computer Storage Measurement

Bit	0 or 1
Nibble	4 bits - Half a byte
Byte	8 bits
Kilobyte – Kb	1000 bytes
Megabyte - Mb	1000 Kb
Gigabyte - Gb	1000 Mb
Terabyte - Tb	1000 Gb
Petabyte - Pb	1000 Tb

Hardware

Modern computers come in a range of shapes and sizes for different purposes but all have the following **hardware** in some form:
- CPU
- Main memory
- Storage
- Communication system(s)
- I/O (Input / Output)

(Secondary) Storage

SSD

Common examples of **secondary storage** devices include:
- Hard disk drives (HDDs)
- Solid state drives (SSDs)
- USB flash drives
- SD cards

Optical disks

Input devices

Touch Screen   Microphone

Keyboard   Webcam   Graphic Tablet

Captures data from an external source. Examples of **input devices** include:
- Keyboard
- Mouse
- Games controller
- Camera
- Microphone
- Touchscreen
- Sensor
- Voice input and Bar code scanner

Output devices

LED display

Projector

Shows data stored on the computer to the user.
Examples of **output devices** include:
- Speaker
- Printer
- Headphones
- Monitor
- Touchscreen
- Games controller with haptic feedback

Year 9: Computer Science Knowledge Organiser

Data Representation

Binary System

- A number system that only uses 2 digits – 0 and 1
- Also known as **Base 2**
- Used by computers as computers are either on (1) or off (0).

The Decimal System

- Used in day-to-day life
- Also called **Base 10** or **Denary** System
- Made of 10 digits: 0 to 9

Have you noticed?: Many everyday electronic devices like TVs, Games Consoles, Computers, Laptops use this symbol to show On (1) and Off (0).
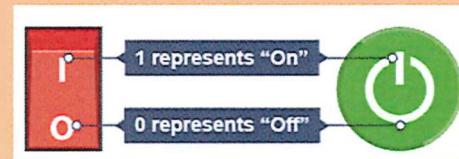
Binary Place Values

Increase by the power of 2 **from left to right – start at 1.**
1 = on: indicates a switch that is on and should added.
0 = off: indicates a switch that is off and is ignored.

Converting Binary to Decimal

> 8 bits used to represent a range of values.

128	64	32	16	8	4	2	1
1	0	1	0	1	1	0	0
128 + 32 + 8 + 4 =							172

Step-by-step guide here:
https://www.bbc.co.uk/bitesize/guides/z26rcdm/revision/2

Decimal Place Values

Ten thousand (10000)	Thousands (1000)	Hundreds (100)	Tens (10)	Units (1)

Converting from Decimal to Binary for example **199.**
From the place values, we need 128+64+4+2+1 to make = 199
All these need to be on (1) and the rest will be off (0)

128	64	32	16	8	4	2	1
1	1	0	0	0	1	1	1

Which of the place values do we need to be on (1) to make up the Decimal number 199?

Step-by-step guide here:
https://www.bbc.co.uk/bitesize/guides/z26rcdm/revision/3

Further help:

1. See Mr. Nyati in Room 214
2. National Academy: https://www.thenational.academy/teachers/programmes/computing-secondary-ks3/units?utm_campaign=ks3-lessons_conversions_campaign_Paid_Search&utm_source=bing&utm_medium=paid_search&utm_content=responsive_PPC_ad&utm_term=Bing_ks3-lessons_conversions_campaign_computing&msclkid=40bc8324b2f71f96d3eaea034b0d7640
3. **BBC Bitesize:** https://www.bbc.co.uk/bitesize/subjects/zvc9q6f

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Year 9

Food Technology

Heart - Ambition - Respect - Tenacity

The Eatwell Guide

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

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.

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

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.

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.

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.

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

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

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)
Cereals containing gluten
Crustaceans
Eggs
Fish
Lupin

Milk
Molluscs
Mustard
Nuts
Peanuts
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.

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**
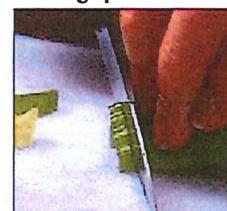
Food skill		Food skill		Food skill	
Bake		Fry and sauté		Portion / divide	
Beat		Glaze and coat		Prove	
Blitz, puree and blend		Grate		Roast	
Casserole		Grill		Roll-out	
Chill		Juice		Rub-in	
Core		Knead		Sift	
Cream		Layer		Snip	
Crush		Mash		Spread	
Cut out		Measure		Stir-fry	
Cut, chop, slice, dice 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
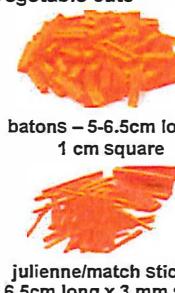
batons – 5-6.5cm long x 1 cm square

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.

This resource meets the *Guidelines for producers and users of school education resources about food.*

Name: Date:

Planning what to cook

- Current healthy eating advice, dietary needs, socio-economic factors, preferences, occasion and cost need to be considered when planning to cook.

Planning what to cook
Deciding on what to cook or eat, whether for yourself or someone else, requires making a number of decisions:
- beliefs and values;
- consumer information;
- food preferences;
- food provenance;
- health and wellbeing;
- social and economic considerations;
- who, what, when and where.

Consumer information
Information can help consumers make informed choices, including
- advertising and marketing;
- media;
- online blogs/forums;
- packaging, nutrition and health claims;
- point of purchase information;
- product placement;
- recipe ideas.

Who, what, when and where
The time of day, location and who is eating can impact food choice:
- eating alone, with family or friends;
- celebration;
- day of the week,
- location, e.g. at home, school or work, at a restaurant, on the go;
- meal or snack;
- occasion and time of day.

Beliefs and values
Personal beliefs and values include:
- culture, tradition and heritage;
- food ethics, e.g. environment, fair trading, organic, free-range, local and seasonal food;
- lifestyle choices, e.g. vegetarian, vegan;
- religion.

Religion	Pork	Beef	Lamb	Chicken	Fish
Islam	x	Halal only	Halal only	Halal only	✓
Hinduism	x	x	✓	✓	✓
Judaism	x	Kosher only	Kosher only	Kosher only	✓
Sikhism	x	x	✓	✓	✓
Buddism (strict)	x	x	x	x	x
Seventh-day Adventist Church	x	x	x	✓	✓
Rastafari movement	x	x	x	x	x

Food provenance
Food provenance is about where food is grown, caught or reared, and how it was produced. Food certification and assurance schemes guarantee defined standards of food safety or animal welfare. There are many in the UK, including:

Red Tractor   RSPCA Assured

British Lion   Marine Stewardship Council

Personal preferences
A number of factors can influence personal preferences, including:
- colour, size and shape of crockery and cutlery used;
- portion size;
- serving style;
- taste, aroma, texture, appearance, shape and colour of food.

Social and economic considerations
The cost of food, money available and social aspects will influence people's food choices:
- cost of food;
- greater food availability;
- income;
- labour saving equipment;
- lack of cooking skills;
- long hours at work;
- wider range of convenience foods.

Allergy and intolerance
There are 14 ingredients (allergens) that are the main reasons for adverse reactions to food. People who are allergic, or intolerant, to these ingredients should take care to avoid eating them. The 14 allergens are:

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

Eating the seasons
Most foods are grown in a particular season of the year, e.g. strawberries are harvested in summer in the UK. These are called 'seasonal foods'.
Buying foods when they are in season will often mean that the price is lower.
Technology and the importation of food has allowed food to be available all year round.
Frozen foods, such as vegetables, are a great alternative to fresh, if they are unavailable.

Health and wellbeing
People may choose their food based on their own or their family's health and wellbeing:
- age and gender;
- allergy and intolerance;
- body image;
- health status;
- mental health;
- physical activity.

Key words
Advertising: Advertising is a form of communication for marketing and used to encourage, persuade, or manipulate an audience to continue or take some new action.
Allergens: Substances that can cause an adverse reaction to food.
Ethical: Relating to personal beliefs about what is morally right and wrong.
Food certification and assurance schemes: Defined standards of food safety, quality or animal welfare.
Food provenance: Where food is grown, caught or reared, and how it was produced.
Marketing: Promoting and selling products or services, including market research and advertising.
Religion: A particular system of faith and worship.
Seasonal food: Food grown at a particular time of year.
Seasonality: The times of year when a given type of food is at its peak, either in terms of harvest or its flavour.

Task
Research one consideration when planning what to cook. Prepare a PPT presentation to share with the class next lesson.

To find out more, go to:
https://bit.ly/3dNUMBf

This resource meets the *Guidelines for producers and users of school education resources about food.*

Name: Date:

Where food comes from

- Food is sourced, processed and sold in different ways.
- Geography, seasonality, weather and climate influence the availability of food and drink.

All food must be grown, reared or caught

In the past food was grown, prepared and cooked at home or sold by small-scale producers or merchants.

Some people still grow food at home or on allotments. Food can also be bought from a wide range of sources, including:
- cafes/coffee shops;
- convenience stores;
- farmers markets;
- farm shops;
- markets;
- on-line retailers;
- restaurants;
- supermarkets;
- takeaway outlets.

Food Processing

Food processing is any deliberate change to food that happens to a food before it is available to eat. Processing makes food safer to eat by killing existing bacteria and slowing bacterial growth. Food is processed for a number of reasons:
- to extend shelf life;
- to add variety;
- for convenience;
- for consumer's health.

Innovations in food processing have led to the development of functional foods; these provide benefits over and above the basic nutritional value, e.g. dairy products containing probiotic bacteria.

Food provenance

Food provenance is about where food is grown, caught or reared, and how it was produced. Food certification and assurance schemes guarantee defined standards of food safety or animal welfare. There are many in the UK, including:

World food

A number of ingredients and foods that are now readily available have been introduced to the UK over a long period of time. Many are imported from other countries giving access to ingredients and foods that would not normally grow in the UK. The availability of these ingredients and foods gives a wide choice throughout the year.

Food availability

Some ingredients or foods are available throughout the year because they have been imported from other countries where they are in season at different times of the year.

Climate and terrain are two key factors that affect food availability and where food is grown, reared and caught.

There is a great variety of food grown all over Europe. The type of farming is partly determined by the climate and the geography of the country or region. The terrain or landscape determines which crops are grown or animals reared. Cereal crops are grown in flat plains, whereas sheep can be reared in hilly terrain.

Seasonality

Fruit and vegetables naturally grow in cycles and ripen during a certain season each year. Some meat and fish can also be seasonal. Advantages of buying food in season include:
- it is fresh;
- best flavour, colour and texture;
- optimal nutritional value;
- supports local growers;
- lower cost;
- reduced energy needed to transport.

Climate change

There is worldwide concern about climate change and the increased number of extreme or unusual weather conditions. Changes in temperature can affect plant growing seasons and livestock conditions. It is very likely to affect food security at a global, regional and local level.

Food security

Food security exists when everyone has access to enough affordable, safe and nutritious food to keep them healthy, in ways the planet can sustain in the future.

To find out more, go to: https://bit.ly/3rjJo6S

Key terms

Food processing: Any deliberate change to food that happens to a food before it is available to eat.
Seasonality: Food grown at a particular time of year.
Food certification and assurance schemes: Defined standards of food safety, quality or animal welfare.
Food security: Having access to sufficient quantity of affordable, nutritious food.
Food provenance: Knowing where food was grown, caught or raised and how it was produced.

Map showing key growing areas in the UK — some parts of the UK have excellent soil for crops, while others are used for cattle, sheep, pigs and poultry.

Many plant crops are grown in the UK, including:
- wheat, barley & oats;
- oil seed rape;
- potatoes;
- sugar beet;
- fruit & vegetables.

In the north-west of England, Wales and Scotland, farmers keep cattle and sheep. Sheep can survive the cold winters on the hills and moors.

In the east of England, wheat, barley and vegetables grow in large fields.

Cattle, sheep, pigs and dairy are the largest commodity sectors in Northern Ireland.

In the south-east of England and the lowlands of Scotland, grain, potatoes and sugar beet are grown. Most UK cauliflowers are grown in the south-east.

In the south-west of England, the rich grass is ideal for feeding dairy cows.

Tasks

- Choose a food commodity and research how it is produced and processed. Create farm to fork food chain cards to illustrate what you have found out.
- Research the following ingredients and state where in the world they are traditionally grown, reared or caught: avocado, lamb, nutmeg, oats, olive oil, spinach, squid, sugar beet.

Food labelling

- Food labels provide information, which helps people to know when to eat food, and how to store it safely.
- Nutrition and allergy information on food labels help to make informed food and drink choices.

Food labelling
Information on the labels of pre-packed food and drink products can be legally required or just for consumer information.

Legally required information:
- country of origin and place of provenance;
- date mark;
- list of ingredients (including additives and allergens);
- name and address of the manufacturer, packer or seller;
- name of food or drink;
- nutrition information;
- storage and preparation instructions;
- weight or volume.

Consumer information:
- front-of-pack nutrition label;
- price;
- serving suggestions/image.

Allergen labelling
There are 14 ingredients (allergens) that are the main reason for adverse reactions to food. They must be labelled on pre-packaged food and menus so that consumers can make safe choices.

From summer 2021 new legislation will tighten the rules requiring food that is prepared for direct sale, e.g. in a coffee shop, to carry a full list of ingredients.

The 14 allergens are:

Foods containing gluten, present in wheat, barley and rye	Crustaceans	Eggs	Fish	Lupin
Peanuts	Soybeans	Milk	Nuts	Molluscs
Celery	Mustard	Sesame seeds	Sulphur dioxide	
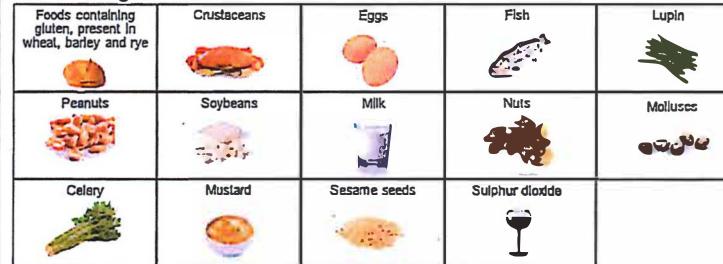
Nutrition information
Nutrition information can help consumers make healthier choices.
Back-of-pack nutrition information is legally required.

NUTRITION
When heated according to instructions

Typical values	Per 100g	Each pack (390g**)
Energy	457kJ	1781kJ
	109kcal	424kcal
Fat	3.9g	15.2g
of which saturates	1.9g	7.5g
Carbohydrate	12.1g	47.1g
of which sugars	1.6g	6.2g
Fibre	1.1g	4.2g
Protein	5.8g	22.6g
Salt	0.6g	2.2g

Key terms
Allergen: An ingredient that may cause an adverse reaction to food.
Back-of-pack labelling: Is legally required and can help consumers make healthier choices.
Front-of-pack labelling: Is voluntary but must provide certain information and can use red, amber and green colour coding.
Use-by-date: Relates to the safety of the food. Food must be eaten by this date.
Best-before-date: Relates to the quality of the food. Food may still be eaten beyond this date.

Date marks/shelf life
'Use by' dates relate to the safety of the food and' best before' dates relate to quality. Eating foods after their 'use by' date could lead to food poisoning.

USE BY:	BEST BEFORE:
25/08/20	25/08/21
KEEP REFRIGERATED	STORE IN A COOL DRY PLACE

Baby leaf salad
Keep refrigerated. Once opened consume within 24 hours and by the 'use by' date shown.

Ingredients
It is a legal requirement to include an ingredients list on packaged or pre-prepared foods. The ingredients must appear in descending order and with the allergens identified in **bold**, <mark>highlighted</mark>, underlined or in *italics*.

INGREDIENTS

Water, Carrots, Onions, Red Lentils (4.5%), Potatoes, Cauliflower, Leeks, Peas, Cornflour, **Wheat** flour, Cream (**milk**), Yeast Extract, Concentrated Tomato Paste, Garlic, Sugar, **Celery** Seed, Sunflower Oil, Herb and Spice, White Pepper, Parsley

ALLERGY ADVICE

For allergens, see ingredients in **bold**

Front-of-pack labelling
Front-of-pack nutrition information is voluntary. If a food business chooses to provide this, only the following information may be provided:
- energy only;
- energy along with fat, saturates, sugars and salt.

Red, amber and green colours, if used, show at a glance whether a food is high, medium or low for fat, saturates, sugars or salt. The colour coding can be used to compare two products.

Per pack

Energy 2368kJ 563kcal 28%	Fat 16.6g 24%	Saturates 6.4g 32%	Sugars 13.8g 15%	Salt 1.92g 32%

% of an adult's Reference Intake

Typical Energy values per 100g: 554kJ/132kcal
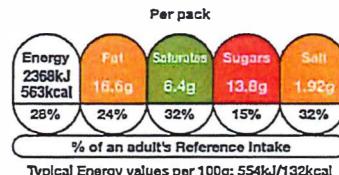
Task
Produce a food label for a dish you have made. Ensure that the label includes the information required by law that relates to food hygiene and safety, i.e. a date mark, ingredient list (with allergens identified) and storage instructions.

Hartshill Academy
The best in everyone™
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Year 9

Geography

Heart - Ambition - Respect - Tenacity

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.

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

Year 9

History

Unit 1 - World War 1

A. Long Term Causes:

Keywords:
1. **Militarism** - A belief that it is necessary to have strong armed forces and that this force should be used as a solution to any threat.
2. **Alliance** - An agreement between countries that benefits each of them.
3. **Imperialism** - Extending a nation's power and influence by colonizing other countries.
4. **Nationalism** - An intense form of patriotism where the value and importance of your country is exaggerated.
   Remember: the MAIN causes
5. **Great Powers** - Countries that have international influence and military strength.
6. **Balance of powers** - A belief in that the size and power of the alliances of the Great Powers would prevent either side starting a war.
7. **Encirclement** - To be surrounded.
8. **Arms race** - A competition between countries over the development and production of weapons e.g. the production of dreadnoughts (pictured).
9. **Schlieffen Plan** - German plan to quickly attack and defeat France, then turn their forces on Russia if war was to happen.
10. **Kaiser Wilhelm** - Germany's ambitious emperor.

B. Short Term Causes:

Key people:
1. **Archduke Franz Ferdinand** - An Austrian prince, assassinated (killed) in Sarajevo in 1914.
2. **Gavrilo Princip** - Serbian terrorist responsible for shooting the Archduke.

Keywords:
3. **Annex** - To seize (take) an area of land, normally by force, and make it part of your country.
4. **Balkans** – A peninsula in South Eastern Europe made up of countries like Serbia, Croatia, Bulgaria, Bosnia, Albania.
5. **Brinkmanship** - To pursue a dangerous policy to the limits of safety especially in politics.
6. **Ultimatum** - A final demand, the rejection of which will result in a break down of relations.

C. The Western Front:

Keywords:
1. **Conscription** - Forcing ordinary citizens to fight as soldiers in a war.
2. **Stalemate** - A situation where neither side fighting in a war can make progress.
3. **Trenches** - Connection of long narrow ditches for soldiers to take shelter from enemy fire.
4. **Artillery** - Heavy guns and cannons firing shells.
5. **Bombardment** - A continuous attack with shells (shelling), intended to destroy trench defences.
6. **Armistice** - Ceasefire between the Allies and the Germans.
7. **Naval blockade** - Allied efforts to restrict the supply of essential goods back to Germany.
8. **Gas** - A poisonous agent used in warfare.
9. **Tank** - A heavy armoured fighting vehicle carrying guns and moving on a continuous metal track.
10. **General Haig** - Led the British offensive at the Somme.

D. The Treaty Of Versailles:

Keywords:
1. **Big Three** - The leaders of the three main Allied powers – France, Britain, USA.
2. **Treaty** - A formal agreement between states.
Remember the Terms of ToV: LAMB
3. **Land** – Germany gave up 13% of its territory and demilitarised the Rhineland.
4. **Army** – Reduced to 100,000 men.
5. **Money/ Reparations** - Financial compensation for war damage paid by a defeated state. Germany paid £6.6 billion.
6. **Blame** – Germany had to accept the war guilt clause.
7. **Dolchtoss** – Stab in the back theory.

1882 The **Triple Alliance** between Austria-Hungry, Germany and Italy is signed.	1907 The **Triple Entente** between Britain, France and Russia is signed.	1908-1909 The **Balkan Crisis** occurred after Austria-Hungry annexed Bosnia and Serbia threatens war.	28th June 1914 Archduke Franz Ferdinand is **assassinated** in Sarajevo by a Serbian terrorist group.	23rd-25th **July 1914** Austria issues Serbia with an **ultimatum** but it is rejected.	4th August 1914 Britain issues an ultimatum to Germany and ultimately declares war.	1916 The Battle of the Somme.	1917 Russia leaves the war, USA joins.	11th **November 1918** The Armistice.	1919 Germany signs Treaty of Versailles.

Unit 2 - The Suffrage Movement

A. Keywords

1. **Enfranchisement** – To be given the right to vote.
2. **Manifesto** – A public set of political aims written down.
3. **Propaganda** – Information used to promote a political point that can be misleading or untrue.
4. **Property Rights** – The ability to own land and housing, many women could not gain access to ownership.
5. **Representation** – speaking or acting on behalf of someone.
6. **Suffrage** – The right for women to vote in elections.
7. **Tactics** – An action or strategy carefully planned to achieve a specific end.

B. Suffragist Movement

1. **Constitutional** – A peaceful way of campaigning, often using political methods, such as petitions.
2. **Marches** – A tactic used by both campaigns to get their message heard.
3. **NUWSS – National Union of Women's Suffrage Societies**, also known as suffragists, an organisation that wanted greater equality for women using peaceful methods of protest. Led by Millicent Fawcett.
4. **Suffragist** – A campaigner who believes in constitutional methods and tactics of campaigns.

D. War Time

1. **Home Front** – The people who stay and work in their country, during a foreign war.
2. **Munition factories** - Factories that supplied weapons during WWI, many women worked in them.
3. **Representation of the People Act** - Allowing men over 21 and women over 30 to vote.
4. **The Canary girls** - British women that worked in the munition factories, repeated exposure to TNT turned their skin orange, like canaries.
5. **War Effort** - People who were committed to supporting the troops abroad by mobilising at society at home, helping with supplies from food to munitions.

C. Suffragette Movement

1. **Arson** – Act of deliberately setting fire to property.
2. **'Cat and Mouse' Act** – A law that allowed the police to rearrest women. The police let suffragettes on hunger strike free from prison, until they had eaten, only to arrest them again (pictured).
3. **Force feeding** – Police put a tube down the throats of women on hunger strike in prison to feed them, many drowned using this method.
4. **Militant** – Using confrontational organised tactics, such as destroying property.
5. **Petition** – A document signed by many people demanding political action by the government.
6. **Suffragette** – A campaigner who is prepared to use militant or violent methods and break the law.
7. **Terrorism** – the unlawful use of violence and intimidation, especially against civilians, in the pursuit of political aims.
8. **WSPU** – Women's Social and Political Union, also known as the suffragettes, a political organisation for women only that were led by the Pankhurst family and that were prepared to use militant tactics to achieve their aims.
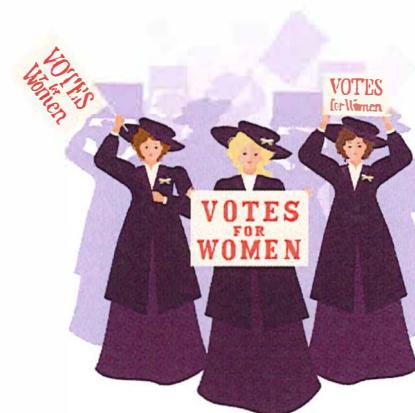
C. Suffragette Movement

1. **Arson** – Act of deliberately setting fire to property.
2. **Annie Kenney** - A working-class socialist feminist who was active in the WSPU as a militant member and was arrested.
3. **Christabel Pankhurst** - Speaker for the WSPU in 1905. She trained as a lawyer but could not practice as a woman. She fled the country in 1912 for fear for rearrest, and she unsuccessfully ran for parliament in 1918.
4. **Emeline Pankhurst** - Led the WSPU from October 1903. She took militant action such as arson and destroying property and was arrested many times, she went on hunger strike and was force-fed. She died in 1928. Mother of Christabel.
5. **Emily Wilding Davidson** - Joined the WSPU in 1906. By 1911 she was increasingly militant. She was killed whilst campaigning in 1913.
6. **Millicent Fawcett** - She was a leading suffragist and leader of the NUWSS for over 20 years. She was a pivotal in women achieving the vote. She was dedicated to constitutional means and argued militancy was counterproductive.
7. **Nancy Astor MP** - Became the first female MP in 1919, she was American-British, upper-class, and replaced her husband as MP.

1897	1903	1905	1908	1909	1913	1914	1918	1919	1928
NUWSS was formed with Millicent Fawcett as their leader.	WSPU was formed by Emmeline Pankhurst and her daughters.	Militant campaign begins, Annie Kenney and Christabel Pankhurst were arrested.	Mass rally, c.400,000 in London with window smashing with pleas attached to the stones.	Hunger strikes begin and the police force feed prisoners.	Emily Wilding Davidson is struck by the King's horse at the Derby and dies.	World War I begins, all leaders urge women to join the war effort.	The Representation of the People Act is passed.	Nancy Astor, The first female MP was elected.	Equal Franchise Act.

Unit 3 - World War II

A. Keywords

1. **Allied Powers –** Alliance of countries opposing the Axis: Britain, and her Empire, USSR & USA (in 1941).
2. **Axis Powers –** Alliance of Fascist countries, Germany, Italy, Japan.
3. **Radar –** Technology that locates and tracks objects by bouncing radio waves off them.
4. **Total war -** An unrestricted war where the accepted rules of war are disregarded.
5. **Turning Point –** When something important happens that influences the course of the war.

B. Causes Of WWII

1. **Adolf Hitler –** Totalitarian leader of Nazi Germany 1933-45.
2. **Appeasement –** Giving in to a person or groups demands.
3. **Anschluss –** The unification of Germany with Austria.
4. **Blitzkrieg –** 'Lightning war'; German term for fast-moving warfare.
5. **Fascism –** Far right ideology that spread across Japan, Italy and Germany and other countries.
6. **Luftwaffe –** The German air force.

C. The War In The West

1. **Battle of the Atlantic –** Naval war at sea.
2. **Battle of Britain –** German aerial attack on Britain.
3. **Blockade –** U-boats (submarines) prevented American supply ships entering British seas.
4. **Blitz -** Aerial attack on civilian targets to break morale.
5. **D-Day –** Operation Overlord was the Allied amphibious invasion of Normandy in June 1944 (pictured).
6. **Dunkirk –** British soldiers were evacuated from northern France at the start of the war.
7. **Evacuation –** To remove people from somewhere dangerous to somewhere safe.
8. **RAF –** Britain's Royal Air Force.
9. **Rationing –** Limiting the number of supplies (food, fuel, clothes) in times of war.
10. **Winston Churchill –** Prime Minister of Britain, he led a war time coalition.

E. The Role Of USA

1. **General Eisenhower –** Led the D-Day landings for the allies.
2. **Isolationism –** Avoiding political and economic dealings with other countries.
3. **Lend-lease –** The American scheme to supply Britain and USSR in the war before their military joined in 1941.
4. **Manhattan Project –** American nuclear project that developed the first atomic bomb.
5. **Midway -** The naval battle where USA significantly hurt the Japanese fleet in 1942.
6. **FD Roosevelt -** 32nd President of USA from 1933-1945.
7. **Pearl Harbour –** American naval base in Hawaii that was bombed by Japan in 1941.

D. The Eastern Front

1. **Joseph Stalin –** Totalitarian leader of the Soviet Union (Russia).
2. **Operation Barbarossa –** German invasion of the Soviet Union.
3. **USSR -** After the communist revolution Russia became known as the USSR, the Union of Soviet Socialist Republics.
4. **Scorched Earth Policy –** The Soviets torched everything of use so the German offensive struggled to find supplies.
5. **Siege –** When a town is surrounded until the inhabitants surrender or starve.
6. **Stalingrad –** The Soviets defeated the German army by winning a brutal siege.

F. Origins Of The Cold War

1. **Capitalism -** An ideology that includes democratic elections, free trade, individual right, and freedoms.
2. **Cold War -** A war of words and threats, increasing tensions between two superpowers that threatened stability.
3. **Communism –** An ideology that has the Communist Party controlling government and the economy, it focuses on the rights of workers and greater equality.
4. **Conferences –** Yalta and Potsdam war conferences were held between the Grand Alliance to decide what to do with Germany.
5. **Ideology -** A system of ideas and beliefs that forms a political and economic system.
6. **Iron Curtain –** A symbolic barrier between the 'East' (communism) and the 'West' (democracy).
7. **Superpowers –** USSR and USA emerged from WWII as the world's biggest powers, but they had opposing ideologies and were suspicious of each other.
8. **Tension -** When tension increased there was a concern that it would lead to nuclear war.
9. **The Grand Alliance -** The Alliance created after 1941 to defeat Nazi Germany (Britain, USSR, and USA).

1933 Hitler becomes Chancellor and rearms Germany.	Sept. 1938 The Munich agreement, Britain appeased Hitler.	March 1939 Hitler invades Czechoslovakia.	Sept. 1939 Britain and France declare war on Nazi Germany.	May 1940 Evacuation of Dunkirk.	July to October 1940 The Battle of Britain.	June 1941 Germany invades Russia, Operation Barbarossa.	Dec.1941 Pearl Harbour. America join the war.	1943 Germany surrender at Stalingrad.	6th June 1944 D-Day landings.	8th May 1945 Germany surrender.	August 1945 USA drop A-bombs on Japan.	1946 Churchill's 'Iron Curtain' speech; start of the Cold War.

Year 9

Music

Heart - Ambition - Respect - Tenacity

Unit 1 - What Makes A Good Song

1. Musical Context

Song structure: includes Intro, Verse, Pre-chorus, Chorus, Middle 8/Bridge, Outro
Typical instrumentation:
- Rhythm section: Drum kit and Bass guitar
- Electric guitars: Rhythm guitar, Lead guitar
- Keyboards and/or Synths
- Singers: Lead singer, backing singers

EDM (Electronic Dance Music)
- A song written for electronic and technology – mixing, producing
- 'Break' section of the structure (similar to verse), '4 on the floor' from the bass drum
- Build up and Drop, snare drum
- The remix, when a producer changes the song to change the genre and/or mood

Use of voice
- A Capella, a song for voices and no instruments
- Rap, developed in New York in the 1970s from Jamaican sound system culture
- Flow, the rhythms and rhymes of lyrics in rap and how they work together
- Flow in old school rap is slower and more basic
- Flow in drill and grime is more complex and faster in tempo

2. Terminology

Melody	Tune
Structure	The order of the sections in a piece of music
Texture	The layers of sound
Tonality	The key of a piece of music or individual chord i.e. minor
Tempo	Speed of the music

4. Theory

Interval: Distance between notes i.e. tone/major second, semitone

Perfect Unison, Major Second, Major Third, Perfect Fourth, Perfect Fifth, Major Sixth, Major Seventh, Perfect Octave

Major chord:
Root + 4 + 3

4 semitones   3 semitones
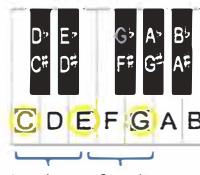
Minor Chord:
Root + 3 + 4

3 semitones   4 semitones
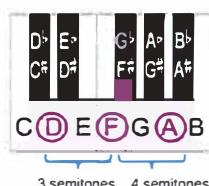
Primary chords: I IV V
Secondary chords: II, III, VI
In any major key: primary chords are major – secondary chords are minor

Perfect Cadence: Moving from chord V-I
Imperfect Cadence: End on chord V

3. Vocabulary

Intro	First section of a song, often an instrumental
Verse	A section of a song that has the same melody and different lyrics
Pre Chorus	Build up to the chorus, will have same melody and lyrics
Chorus	Includes the main hook of the song and will have same lyrics and melody
Middle 8/Bridge	Contrasting section, often 8 bars, with new musical material
Outro	Final section
Improvisation	Creating music in the moment
Root Note	Lowest note in a chord, often the bass
Monophonic	One line in music i.e. A solo
Homophonic	All parts moving at the same time/chordal
Melody Dominated Homophony	A tune and accompaniment
Polyphonic	Multiple independent music lines heard at the same time
Countermelody	Two or more independent melodies being heard at the same time
Hook	The catchiest part of the song
Riff	Short catchy phrase, often found in intro or instrumental
Motif	Short melodic idea

Unit 2 - Music & Film

1. Musical Context

- Music in Film sets the mood, support the story telling Genre: Horror, Fantasy, Westerns
- Composers: John Williams, Hans Zimmer, Danny Elfman, Debbie Wiseman, Delia Derbyshire, Segun Akinola

Instrumentation in Film Music

Woodwind	Sounds of nature
Brass	War, military
Harp	Love
Glockenspiel	Magic, supernatural
Timpani/ Drums	Conflict
Strings	Expressing emotion
Tremolo Strings	Tension
Electronic Timbres	Futuristic, outer space

2. Terminology and Impact (Fingerprints/Cliches)

Tempo	Fast	Excitement, action
	Slow	Thoughtful
Melody	Ascending	Moving up – hope
	Descending	Moving down – despair
	Chromatic	Tension
Harmony	Major	Optimism
	Minor	Seriousness and sadness
	Dissonant	Scariness or pain
Rhythm and Metre	Strong pulse	With purpose
	Ostinato	Menacing, creating tension
	Irregular rhythm	Unpredictable and exciting
Dynamics	Loud	Powerful, large, surprising
	Soft	Weak, small, gentle
	Crescendo	Getting nearer
	Diminuendo	Moving further away

3. Vocabulary

Mickey mousing	When the music fits precisely with a specific part of the film
Cues	The parts of the music that require music
Syncing/sync point	A precise moment where the timing of the music needs to fit with the action
Underscore	When music is played at the same time as the action or dialogue
Diagetic	Music that is part of the action, the characters can hear it
Non-diagetic	Music that is not part of the action, the characters in the audience cannot hear it
Leitmotif	A short melody that is associated with a character or idea

Year 9

Performing Arts

Heart - Ambition - Respect - Tenacity

Key terms and vocabulary

Stage Directions

Upstage Right	Upstage	Upstage Left
Stage Right	Center Stage	Stage Left
Downstage Right	Downstage	Downstage Left
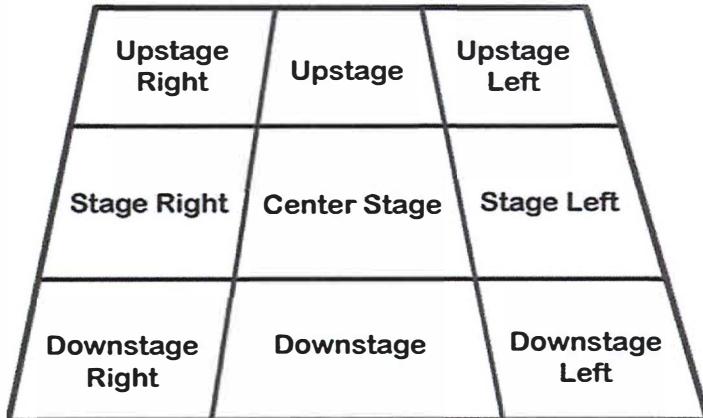
AUDIENCE

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 form 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.

Year 9

Religious Education

Heart - Ambition - Respect - Tenacity

Knowledge Organiser| Life and Death

1	**Morality**	Principles concerning the distinction between right and wrong or good and bad behaviour.	11	**Relativism**	The view that morality exists in relation to culture, society, or historical context, and is not absolute.
2	**Ethics**	Moral principles that govern a person's behaviour or the conducting of an activity.	12	**Agape**	Unconditional love, "the highest form of love, charity" and "the love of God for man and of man for God".
3	**Sanctity of Life**	The view that all life is sacred because it is made by God.	13	**Abortion**	A procedure to end a pregnancy.
4	**Quality of Life**	The standard of health, comfort, and happiness experienced by an individual or group.	14	**Pro-Life**	Opposing abortion and euthanasia.
5	**Rules**	One of a set of explicit or understood regulations or principles governing behaviour.	15	**Pro-Choice**	Advocating the legal right of a woman to choose whether or not she will have an abortion.
6	**Natural Moral Law**	A system of laws based on close observation of human nature, given to humans by God.	16	**Euthanasia**	The painless killing of a patient suffering from an incurable and painful disease or in an irreversible coma.
7	**Precept**	A general rule intended to regulate behaviour or thought.	17	**Capital Punishment**	The legally authorized killing of someone as punishment for a crime.
8	**Reason**	The power of the mind to think, understand, and form judgements logically.	18	**Animal Rights**	the rights of animals to live free from human exploitation and abuse.
9	**Absolute**	A value or principle which is regarded as universally valid.	19	**Dominion**	To be in charge of something or rule over it.
10	**Situation Ethics**	The view that there should be flexibility in the application of moral laws according to circumstances.	20	**Stewardship**	The job of supervising or taking care of something.

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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 are very different
Nous avons des goûts similaires	We have similar likes/interests
Son/Sa/Ses (agrees with the object)	Her/his

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

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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 - The variety of Spanish cuisine

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/we 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 (+ infinitive)	I would (not) like
Me encantaría (+ infinitive)	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
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