Knowledge Navigator 2022/2023 Cycle 1

Year 9

Name:

Form:

Determination | Integrity | Trust

DIXONS COTTINGLEY ACADEMY

	Week 1		Week 2		Week 3		Week 4		Week 5	
Monday	29/08/22	Bank holiday	05/09/22	French Page 19 Week 2	12/09/22	French Page 19 Week 3	19/09/22	French Page 19 Week 4	26/09/22	French Page 19 Week 5
Tuesday	30/08/22	Year 7 only	06/09/22	Science Page 9 Box 1	13/09/22	Science Page 9 Box 2/4	20/09/22	Science Page 9 Box 3	27/09/22	Science Page 11 Box 1/2
Wednesday	31/08/22	All students	07/09/22	History Page 24 Box A Sparx Maths	14/09/22	Geography Page 22 Box 1 Sparx Maths	21/09/22	History Page 24 Box B Sparx Maths	28/09/22	Geography Page 22 Box 2 Sparx Maths
Thursday	01/09/22	All students	08/09/22	English Page 2 Box B	15/09/22	English Page 2 Box C	22/09/22	English Page 2 Box D	29/09/22	English Page 2 Box E
Friday	02/09/22	All students	09/09/22	Spellings Week 2	16/09/22	Spellings Week 3	23/09/22	Spellings Week 4	30/09/22	Spellings Week 5

	Week 6		Week 7		Week 8		Week 9		Week 10	
Monday	03/10/22	French Page 20 Week 6	10/10/22	French Page 20 Week 7	17/10/22	French Page 20 Week 8	07/11/22	French Page 21 Week 9	14/11/22	French Page 21 Week 10
Tuesday	04/10/22	Science Page 11 Box 3/4	11/10/22	Science Page 11 Box 5	18/10/22	Science Page 11 Box 1/2	08/11/22	Science Page 8 Box 1/2	15/11/22	Science Page 8 Box 3/4
Wednesday	05/10/22	History Page 24 Box C Sparx Maths	12/10/22	Geography Page 22 Box 3 Sparx Maths	19/10/22	History Page 24 Box D Sparx Maths	09/11/22	Geography Page 23 Box 4 Sparx Maths	16/11/22	History Page 25 Box F Sparx Maths
Thursday	06/10/22	English Page 3 Letters 1-4	13/10/22	English Page 3 Chapters 1-2	20/10/22	English Page 3 Chapters 3-5	10/11/22	English Page 3 Chapters 6-8	17/11/22	Staff only
Friday	07/10/22	Spellings Week 6	14/10/22	Spellings Week 7	21/10/22	Spellings Week 8	11/11/22	Spellings Week 9	18/11/22	Staff only

	Week 11		Week 12		Week 13	
Monday	21/11/22	French Page 21 Week 11	28/11/22	French Page 21 Week 12	05/12/22	French Page 21 Week 13
Tuesday	22/11/22	Science Page 8 Box 1/2	29/11/22	Science Page 8 Box 3/4	06/12/22	Science Page 10 Box 1/2/3
Wednesday	23/11/22	Geography Page 23 Box 5 Sparx Maths	30/11/22	History Page 25 Box G Sparx Maths	07/12/22	Geography Page 23 Box 6 Sparx Maths
Thursday	24/11/22	English Page 3 Chapters 11-12	01/12/22	English Page 3 Chapters 13-17	08/12/22	English Page 3 Chapters 18-24
Friday	25/11/22	Spellings Week 11	02/12/22	Spellings Week 12	09/12/22	Spellings Week 13

DIXONS COTTINGLEY ACADEMY

YEAR 9

CYCLE 1 HOMEWORK

YEAR 9 KNOWLEDGE NAVIGATOR
CYCLE 1
CONTENTS PAGE

English	Gothic Literature	CYCLE 1	Year 9

BOX A: Gothic Conventions

Wild, untamed landscapes	Dark, wild, and **treacherous** place full of **wrathful weather**, **malevolent forests**, and **ghostly graveyards**.
Dark abandoned buildings	**Haunted houses**, cobwebbed castles, **derelict churches**, and other once-glorious architecture that has fallen into disrepair.
Romanticised past	In line with its settings, Gothic literature often romanticizes and **revisits the past**.
Gothic plots	Include **revenge,** familial secrets, prophecies, and **curses**. The past is somehow still living, breathing, and controlling the drama.
Extreme emotions	**Suspenseful feelings** of horror, terror, **fear of death**, shock, dread, or disgust in the reader.
Supernatural monsters	**Demons, witches, ghosts**, banshees, **vampires**, and other supernatural creatures often play parts in Gothic fiction.
Byronic Hero	Portrayed as a **flawed, lonesome, isolated**, or **outcast** figure who has to overcome obstacles in order to re-join society.
Femme Fatale	An **attractive and seductive woman,** especially one who will ultimately **cause distress** to a man who becomes involved with her.
Motifs	**Curses**, prophecies, **hauntings**, insanity, psychological flips and twists, women as victims, doppelgängers, fallen societies.
Doubt and uncertainty	**The idea that there are forces beyond our control**
Morality	Gothic literature often focusses on the boundary between good and evil. They were written in a time when people were **wary of science** and believed some **scientific theory** was **blasphemy** (evolution).

BOX D: Tier 2 Vocabulary

Aesthetic	The study of or the appreciation of beauty
Doppelgänger	An apparition or double of a living person.
Dramatic Monologue	A poem in the form of a speech or narrative (story)
Duality	The idea that every person has good and evil in them
Foreboding	A feeling that something bad will happen; fearful apprehension.
Gothic	A Genre associated with intense feelings and emotions. It combines horror and terror and sometimes romance
Grotesque	Very strange and ugly in an unnatural way
Hubris	Excessive pride or self confidence
Protagonist	The leading character in a novel, play or film
Sublime	The sublime refers to what is out of the ordinary. Can be associated with feelings and experiences that take us beyond ourselves
Supernatural	A force **beyond** scientific understanding or the laws of nature.
Uncanny	Strange or mysterious, especially in an unsettling way.
Unstable narrator	The character telling the story whose character lacks credibility

BOX B: Gothic Themes

Insanity & violence	Gothic literature often focuses on **psychological 'flips,'** losing a grasp of reality, **descending into madness** and **intense violence** against the innocent. Examples include the eponymous 'Mr. Hyde' and the unstable narrator in 'Tell- Tale Heart'.
The 'uncanny'	The uncanny is a particular fear that starts with familiar objects that then become unfamiliar and strange or contain elements that are repressed. Examples include zombies and dolls.
The 'sublime'	A type of fear associated with feeling overwhelmed and insignificant when confronted by uncontrollable forces, for example, wild , vast natural features in nature such as mountains that inspire both **awe and terror**.
Death & the supernatural	Humankind's **fear of death** is often a focal point of gothic literature, explored through vampires, ghosts and supernatural monsters who **transcend death**.
Constraint and entrapment	To be confined or to be trapped in such a way that there is no way out. It is this sense of containment that contributes to the claustrophobic psychology of **Gothic** space.

BOX C: Key Theorists

Sigmund Freud	An Austrian neurologist and the founder of **psychoanalysis**, a clinical method for treating psychopathology through dialogue between a patient and a psychoanalyst.
Edmund Burke	In 1757 published a treatise of aesthetics called A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful, and therefore provided the English Romantic movement with a **systematic analysis** of what **constitutes the sublime**.
Mary Wollstonecraft	Viewed the sublime as a part of how 19th century **Western culture treated women's intelligence** and education. She explored the idea of the sublime as an escape from the chains of life

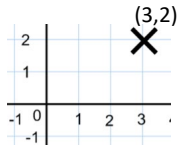
BOX E: Important Gothic Writers

Mary Shelley 1797-1851	Mary Shelley, daughter to **Mary Wollstonecraft**, married the poet **Percy Shelley** when she was just 16 years old, and started writing the novel **Frankenstein** when she was 18. The inspiration for the novel came from her dreams.
Charlotte Bronte *1816-1855*	She was an English novelist and poet, and the oldest of the three Brontë sisters, native to **Yorkshire,** survived into adulthood and whose novels became **classics** of English literature.
Robert Louis Stevenson *1850-1894*	He was a Scottish novelist and travel writer, most noted for **Treasure Island**, Kidnapped, Strange **Case of Dr Jekyll and Mr. Hyde**, and A Child's Garden of Verses.
Oscar Wilde *1854-1900*	He was an Anglo-Irish playwright, novelist, poet, and critic. He is regarded as one of the **greatest playwrights of the Victorian Era**. In his lifetime he wrote nine plays, one novel, and numerous poems, short stories, and essays.

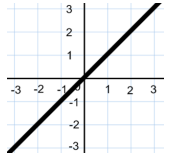
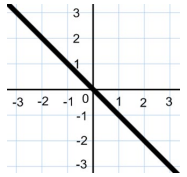
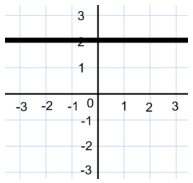
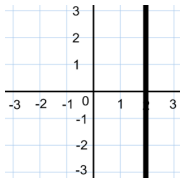
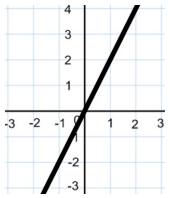
English	Gothic Literature	CYCLE 1	Year 9

Box F Frankenstein	
Letters 1-4 (Walton's point of view)	The novel begins with a series of letters form Walton to his sister, Margaret. He is captain of a ship in a daring voyage to the North Pole. Walton and his men spot a huge creature pulling a sledge and later an emaciated man (Victor Frankenstein) with another sledge. They recuse him and he spends time recuperating on the ship. He eventually shares his story.
Chapters 1-2 (Victor's point of view)	Victor begins his narration. He tells of his childhood, growing up in Geneva and of his father (Alphonse) and his mother (Caroline). He also shared that Elizabeth Lavenza was adopted into his family. As a teenager, Victor become fascinated by the mysteries of science.
Chapters 3-5 (Victor's point of view)	Victor's mother dies after catching scarlet fever whilst nursing Elizabeth. Victor leaves to attend university in Ingolstadt. He becomes obsessed with his study of anatomy, and decides to build an animate creature. When he brings it to life he is horrified by its appearance. Victor runs away from his apartment and the creature leaves. Victor becomes ill.
Chapters 6-8 (Victor's point of view)	Victor is nursed back to health by his friend Henry Clerval. He receives a letter from his father- his younger brother William has been murdered. Returning to Geneva, Victor sees the monster and knows it is culpable. Instated, Justine, the Frankensteins' servant, is tried and executed for William's murder.
Chapters 9-10 (Victor's point of view)	Victor contemplates suicide but a trip away to Belrive, planned by his father, helps him to cheer up slightly. When his negative feelings return, however, Victor opts to climb Montonvert, to clear his head. There he sees the monster, who takes him to its ice cave and tells him his story.
Chapters 11-12 (Creature's point of view)	The monster describes the confusion in its first moments of life. He then describes people fleeing whenever he tried to approach them. He decided to try to stay away from people. He learnt how to use fire and found a hovel by an old cottage. There, a young man, woman and old man live. He realises that they are unhappy in poverty He grows affectionate towards his hosts, secretly helping them and learning their language.
Chapters 13-14 (Creature's point of view)	The Winter turns into Spring and the monster has now learnt language exceptionally well. He notes that the people in the cottage seem particularly unhappy, until a girl named Safie arrives. He learns that the people of the cottage are called Felix (young man), Agatha (young woman) and their father (De Lacey) and used to be affluent.
Chapter 15-17 (Creatures point of View)	The monster finds books and learns to read. He also learns how he was created. He hopes to befriend the cottage dwellers, starting with the blind (so unprejudiced) De Lacey. However, Felix returns and drives him away. In revenge, the monster burns down the cottage. He makes his return to Geneva. He then tells of how he comes across William Frankenstein and realising who he was, strangled him, framing Justine. He implores Victor to make him a mate. The monster is persuasive, so Victor agrees.
Chapter 18-20 (Victor's point of View)	Victor visits England with Clerval. They travel to Scotland. He leaves Clerval in Scotland so that he can complete the Eve creature alone on the remote Orkney Islands. He starts his works but then destroys it, in front of the monster, knowing how horrific it will be. The monster promises revenge. He throws the remains out to sea and returns to mainland Scotland. When he lands he is greeted by townspeople, who say he is suspected of a murder.
Chapters 21-23 (Victor's point of view)	Victor is taken to the body, which is Clerval. He collapses in shock and is ill for two months. When he awakens, he is found innocent of the murder. Plans are made for Victor to marry Elizabeth. He remembers that the monster says he will be with him on his wedding day, and plans to battle him. On the night of the wedding, Elizabeth retires for the night, but the minster breaks in and murders her. Days later his father dies of shock. Victor vows to spend the rest of his life searching for and destroying the monster.
Chapter 24 (Victor's point of view continued by Walter)	Victor relentlessly tracks down the monster, through ice and snow. He is found there by Walton, to whom he tells his story. Victor warns Walton not to make the same mistakes as him and Walton chooses to end the perilous mission. Just before the ship turns back for England, Victor dies. He makes Walton promise that he will finish his mission to destroy the monster. Days later, Walton hears a noise that he choose to investigate, It is the monster, who is weeping over his creator's body. He is tormented that he has become a symbol of evil and states that with his master now dead, he himself is ready to die. He leaves into the darkness.

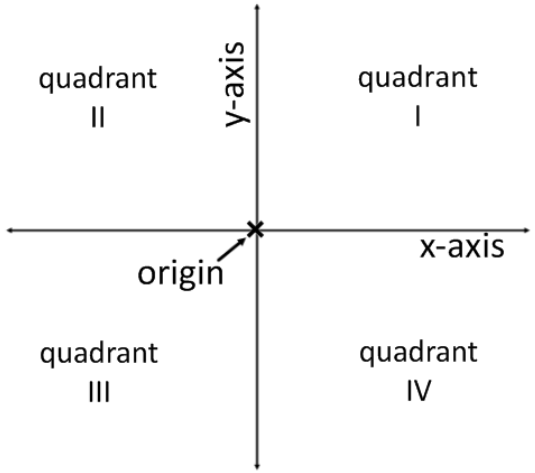
BOX 1: Straight line graphs

COORDINATES	
Axis (plural: axes)	The **x** axis is horizontal. The **y** axis is vertical.
Quadrant	The **four regions** separated by the axes.
Coordinate	Give a **position** of a **point** on a grid. The first number (**x**) moves **left** (-) or **right** (+). The second number (**y**) moves **up** (+) or **down** (-). (**x**, **y**) *e.g. (3,2) means the **point** that is 3 to the right and 2 up from the origin.* 
Origin	The coordinate **(0, 0)**
Line Segment	A line joining **two points**.
Midpoint	The **middle** of a line segment.

Links to: DIRECT PROPORTION	
Direct Proportion	If two quantities are in direct proportion, as one increases, the other **increases** at the same rate If y is directly proportional to x, this can be written as **$y \propto x$**
y = kx	An equation of the form **y=kx** represents direct proportion, where k is the **constant of proportionality**.

LINEAR GRAPHS		
y = x	Every point on this line, the y coordinate is **equal to** the x coordinate. *e.g. (3,3), (-2,-2), (0,0)*	
y = -x	Every point on this line, the y coordinate is **equal to** the **negative** of the x coordinate *e.g. (3, -3), (-2,2)*	
y = a	These lines are always **horizontal**. *For example y = 2* *Every point on this graph, the y coordinate equals 2* *e.g. (0,**2**), (5,**2**)*	
x = a	These lines are always **vertical**. *For example x = 2* *Every point on this graph, the x coordinate equals 2* *e.g. (**2**,0), (**2**,5)*	
y = kx	These lines always go through the **origin.** *For example y = 2x* *Every point on this graph, the y coordinate is double the x coordinate*	

LINEAR GRAPHS	
y = mx + c	The general equation of a linear graph, where **m** is the **gradient** and **c** is the **y-intercept.**
Gradient	How **steep** a line is. Can be positive or negative. $\frac{\text{(Change in y)}}{\text{(Change in x)}}$ It gives the **rate of change**.
y- intercept	Where the line **crosses** the **y-axis**



Links to: SEQUENCES	
Linear Sequence	A sequence where the **difference between terms** is the **same** each time, can be increasing or decreasing. Also known as a **Arithmetic** Sequence. *Algebraically:* $x_n = \boldsymbol{an + b}$

BOX 2: Forming and solving equations

INSTRUCTIONS: EQUATIONS	
Solve	**Find the value** of an unknown or variable. We use **inverse** operations and the **balance** method.
Rearrange	**Changing the subject** of a formula. Sometimes called **transposing.** We use **inverse** operations and the **balance** method, like when we solve an equation.
Inverse	The **opposite.**
Balance *an equation*	Do the **same** to **both sides of the "="** We use this to **solve** an equation, or **rearrange** an equation.
Subject *of an equation*	A **single** unknown or variable that everything else is **equal** to.
Solution *of an equation*	A **value** we can put in place of a variable that makes the equation **true.**
Elimination	To **remove** or **get rid** of something.

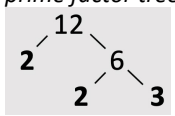
Expand and simplify

$$5(x+3)+6(x-4)$$

$$5x+15+6x-24$$

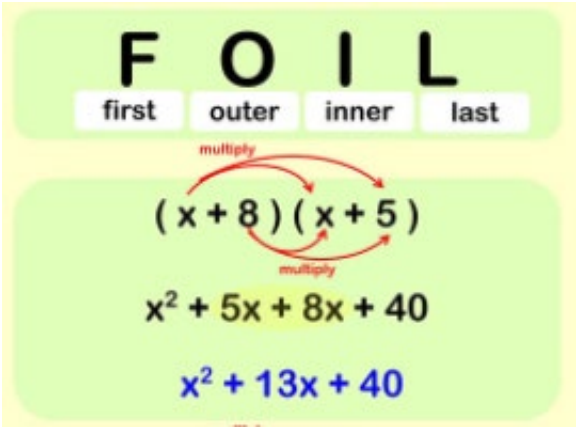
$$11x-9$$

BOX 3: Testing conjectures

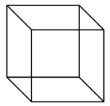
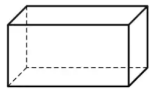
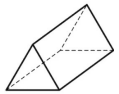
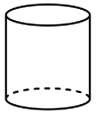
MULTIPLES, FACTORS AND PRIME NUMBERS		
Multiple	The result of **multiplying** a number by an integer. *E.g. The 3rd multiple of 7 is* ***21.***	
Lowest Common Multiple (LCM)	The **lowest common number** in the **multiplication tables** of two or more different numbers.	
Factor	A quantity which **divides equally** into a number. *E.g. factors of 8 are* ***1, 2, 4 and 8.***	
Highest Common Factor (HCF)	The **highest factor** which belongs to two or more numbers.	
Prime Number	An integer greater than 1 that has **exactly two factors, 1 and itself.**	
Prime numbers	**2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31…**	
Prime Factor	A **factor** of a number which is also **prime.**	
Decomposition	To **break something down**	
Product of Prime Factors (prime factorisation)	A set of **prime factors** which **multiply** to give a number. .	*E.g. prime factor tree*  12 = **2 x 2 x 3** or **2^2 x 3**
Unique factorisation theorem	The fundamental theorem of arithmetic. Each integer can be written as a **unique product of prime factors.** This is why 1 is not a prime number.	

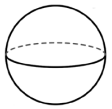
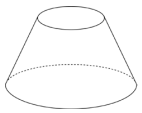
CONJECTURES	
Conjecture	A pattern that is noticed in many cases
Counterexample	An example which disproves a conjecture. Only **one** counter example is needed to disprove a conjecture.

BINOMIALS	
Binomial	an algebraic expression of the sum or the difference of **two** terms.
Expand a *binomial*	Multiply each term in the binomial by the other binomial, resulting in a four term expression which can often be simplified. Use 'FOIL' to help.

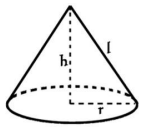


BOX 4: Three dimensional shapes

3D SOLIDS: PRISMS		
Prism	A 3D solid with a consistent **cross section.**	
Cube	**6** faces. **12** edges. **8** vertices.	
Cuboid	**6** faces. **12** edges. **8** vertices.	
Triangular Prism	**5** faces. **9** edges. **6** vertices.	
Cylinder	**3** faces. **2** edges. **No** vertices.	

3D SOLIDS: OTHERS		
Sphere	**1** face. **No** edges. **No** vertices	
Frustum	A frustum is a solid (usually a **cone** or **pyramid**) with the **top removed.**	

PROPERTIES	
Surface	The **outside layer** of an object. It has an area and can be flat or curved.
Face	Any of the individual **flat surfaces** of a solid object.
Edge	For a 3D shape, the **line segment** where two **faces** meet.
Vertex (vertices)	For a 3D shape, **point** where two or more **edges** meet. A **corner**.

SURFACE AREA		
Surface area	The **total area** of all the **surfaces** on a **3D shape**.	
Surface area method	Find the **area of each face** separately, then **add** them together.	
Surface area of a sphere	$A = \mathbf{4\pi r^2}$	
Surface area of a cone	Curved surface area = $\mathbf{\pi rl}$ Circle base area = $\mathbf{\pi r^2}$ **Add** these together.	

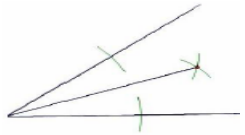
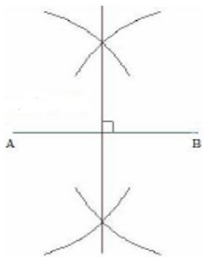
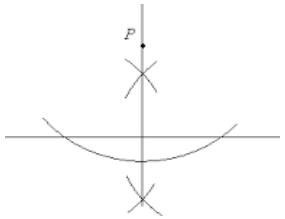
2D REPRESENTATIONS OF 3D SHAPES	
Plan	A **2D view** of a 3D solid as viewed from **above**. **Birds-eye view**.
Elevation	The **2D view** of a 3D solid from the **front** or the **side.**
Net	A **pattern** that you can cut and fold to make a **model** of a 3D shape.

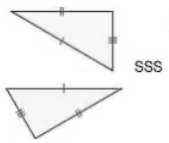
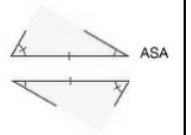
VOLUME		
Volume	The amount of **space a 3D shape** takes up.	
Volume units	**mm^3, cm^3, m^3…**	
Prism	Volume = **area of cross section x length**	
Cube	Volume = **one side cubed** (or, **area of square x length of prism**)	$V = \boldsymbol{l^3}$
Cuboid	Volume = **area of rectangle x length of prism**	$V = \boldsymbol{lbh}$
Triangular Prism	Volume = **area of triangle x length of prism**	$V = \frac{\boldsymbol{lbh}}{\boldsymbol{2}}$
Cylinder	Volume = **area of circle x length of prism**	$V = \boldsymbol{\pi r^2 h}$
Pyramid	Volume = $\frac{1}{3}$ **x area of cross section x length**	
Square based pyramid	Volume = $\frac{1}{3}$**x area of square base x height of pyramid**	$V = \frac{\boldsymbol{lwh}}{\boldsymbol{3}}$
Cone	Volume = $\frac{1}{3}$**x area of circle base x height of cone**	$V = \frac{\boldsymbol{\pi r^2 h}}{\boldsymbol{3}}$
Sphere	$V = \frac{\mathbf{4}}{\mathbf{3}}\boldsymbol{\pi r^3}$	

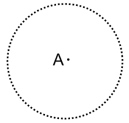
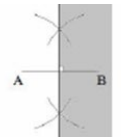
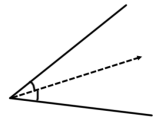
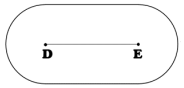
BOX 5: Constructions and congruency

CONSTRUCTIONS VOCABULARY	
Point	A defined **location** in space
Line segment	A part of a line. (mathematical language for '**line**')
Parallel Lines	Lines with the same **gradient** They **never meet**. They are always the **same distance apart**.
Perpendicular Lines	Lines are perpendicular when they meet or intersect at a **right angle** (**90°**)
Right angle	A **90°** angle
Bisect	Cut **exactly** in **half**

LOCI VOCABULARY	
Loci	A locus is a **path of points** that follow a rule.
Equidistant	**Equal** distance

CONSTRUCTIONS		
Construct	To build or make. In maths, it means to make an **accurate drawing**, using a **ruler, protractor** and **compass**.	
Angle bisector	Cut an **angle** exactly in **half**	
Perpendicular bisector of a line segment	Cut a **line** exactly in **half**, making a **right angle.**	
The perpendicular distance from a point to a line	The **shortest distance** from a point to that line.	

CONGRUENT TRIANGLES		
There are three ways to be able to construct a triangle		
 **Side Angle Side**	 **Side Side Side**	 **Angle Side Angle**
Use a **ruler** and **protractor**	Use a **ruler** and **compass**	Use a **ruler** and **protractor**

LOCI		
Locus of points equidistant from A	A **circle** with **A at the centre**	
Locus of points closer to B than A	**Perpendicular bisector** of AB, shade the side closest to **B**	
Locus of points equidistant from two lines	An **angle bisector**	
Locus of points a set distance from a line	Create two **semi-circle**s at either end joined by two **parallel lines**	

1. Atoms and isotopes

Atoms are very small, having a radius of about 1×10^{-10} metres.
Atoms have a positively charged nucleus (protons and neutrons) surrounded by negatively charged electrons.
The nucleus is less than 1/10 000 of the radius of an atom. Most of the mass of an atom is in the nucleus.
The electrons are arranged at different distances from the nucleus (different energy levels).

In an atom the number of electrons ≡ number of protons in the nucleus. Atoms have no overall electrical charge.
The number of protons in an atom of an element is called its atomic number.
The total number of protons and neutrons in an atom is called its mass number.
Atoms can be represented as shown in this example:
Atoms of the same element can have different numbers of neutrons; these atoms are called isotopes.
Atoms turn into positive ions if they lose one or more outer electron(s).

2. History of the atom

Early model	Tiny spheres that could not be divided
Electron discovered	Plum pudding model – atom was ball of positive charge with negative electrons spread around inside it
Rutherford and Marsden scattering experiment	Plum pudding model is replaced with nuclear model – small central positive nucleus with negative electrons orbiting
Niels Bohr	Electrons orbit at specific distances
Later experiments	Positive charge in nucleus can be subdivided – protons
James Chadwick	Discovers neutron

3. Atoms and nuclear radiation

Some atomic nuclei are unstable. The nucleus gives out radiation as it changes to become more stable. This is a random process called radioactive decay.
Activity is the rate at which a source of unstable nuclei decays (measured in becquerel (Bq)).
Count-rate is the number of decays recorded each second by a detector (e.g. Geiger-Muller tube).
The nuclear radiation emitted may be:
• an alpha particle (α) – this consists of two neutrons and two protons, it is the same as a helium nucleus
• a beta particle (β) – a high speed electron ejected from the nucleus as a neutron turns into a proton
• a gamma ray (γ) – electromagnetic radiation from the nucleus
• a neutron (n).

4. Half-lives and radioactivity

Radioactive decay is random. The half-life of a radioactive isotope is the time it takes for the number of nuclei of the isotope in a sample to halve, or the time it takes for the count rate (or activity) from a sample containing the isotope to fall to half its initial level.

Radioactive contamination is the unwanted presence of materials containing radioactive atoms on other materials.

5. Hazards and uses of radioactivity

Background radiation is around us all of the time. It comes from:

- natural sources such as rocks and cosmic rays from space
- man-made sources such as the fallout from nuclear weapons testing and nuclear accidents. The level of background radiation and radiation dose may be affected by occupation and/or location.
- Radiation dose is measured in sieverts (Sv) 1000 millisieverts (mSv) = 1 sievert (Sv)

Radioactive isotopes have a very wide range of half-life values.

Nuclear radiations are used in medicine for the exploration of internal organs, and control or destruction of unwanted tissue.

6. Nuclear fission – is the splitting of a large and unstable nucleus (e.g. uranium or plutonium).

- Usually, for fission to occur the unstable nucleus must first absorb a neutron.
- The nucleus splits into two smaller nuclei, and emits two or three neutrons plus gamma rays.
- Energy is released by the fission reaction.
- The neutrons may go on to start a chain reaction.
- The chain reaction is controlled in a nuclear reactor to control the energy released.
- The explosion caused by a nuclear weapon is caused by an uncontrolled chain reaction.

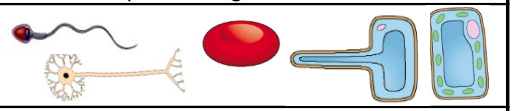
7. Nuclear fusion

Nuclear fusion is the joining of two light nuclei to form a heavier nucleus.
In this process some of the mass may be converted into the energy of radiation.

1. Cell structure

Organelle	Function
Nucleus	Contains genetic material (DNA) which controls the cell's activities.
Cell membrane	Surrounds the cell and controls movement of substances in and out.
Cytoplasm	Jelly-like substance where most chemical processes happen.
Mitochondria	Site of respiration, where energy is released from food molecules.
Ribosomes	Site of protein synthesis.
Cell wall	Supports & strengthens the cell, in plant cells it is made of cellulose.
Chloroplast	Absorbs light energy so the plant can make food.
Vacuole	Contains liquid, and used to keep the cell rigid and store substances.

Cells may be specialised to carry out a particular function:
- sperm cells, nerve cells and muscle cells in animals
- root hair cells, xylem and phloem cells in plants.



As an organism develops, cells differentiate to form different types of cells.
- Most types of animal cell differentiate at an early stage.
- Many types of plant cells retain the ability to differentiate throughout life.

In mature animals, cell division is mainly restricted to repair and replacement. As a cell differentiates it acquires different sub-cellular structures to enable it to carry out a certain function. It has become a specialised cell.

An electron microscope has much higher magnification and resolving power than a light microscope. This means that it can be used to study cells in much finer detail. This has enabled biologists to see and understand many more sub-cellular structures.
Magnification (M) = size of image (I) / size of actual object (A)

2. Cell division

The nucleus of a cell contains chromosomes made of DNA molecules. Each chromosome carries a large number of genes. In body cells the chromosomes are normally found in pairs.

During the cell cycle the genetic material is doubled and then divided into two identical cells.
Before a cell can divide it needs to grow and increase the number of sub-cellular structures such as ribosomes and mitochondria. The DNA replicates to form two copies of each chromosome.
In mitosis one set of chromosomes is pulled to each end of the cell and the nucleus divides.
Finally the cytoplasm and cell membranes divide to form two identical cells.
Cell division by mitosis is important in the growth and development of multicellular organisms.

3. Transport in cells

Diffusion is the spreading out of the particles of any substance in solution, or particles of a gas, resulting in a net movement from an area of higher concentration to an area of lower concentration.
Some of the substances transported in and out of cells by diffusion are oxygen and carbon dioxide in gas exchange, and of the waste product urea from cells into the blood plasma for excretion in the kidney.
Factors which affect the rate of diffusion are:
- the difference in concentrations (concentration gradient)
- the temperature
- the surface area of the membrane.

A single-celled organism has a relatively large surface area to volume ratio. This allows sufficient transport of molecules into and out of the cell to meet the needs of the organism.

In multicellular organisms, surfaces and organ systems are specialised for exchanging materials. This is to allow sufficient molecules to be transported into and out of cells for the organism's needs. The effectiveness of an exchange surface is increased by:
- having a large surface area
- a membrane that is thin, to provide a short diffusion path
- (in animals) having an efficient blood supply
- (in animals, for gaseous exchange) being ventilated.

Water may move across cell membranes via osmosis. Osmosis is the diffusion of water from a dilute solution to a concentrated solution through a partially permeable membrane.

Active transport moves substances from a more dilute solution to a more concentrated solution (against a concentration gradient). This requires energy from respiration.
Active transport allows mineral ions to be absorbed into plant root hairs from very dilute solutions in the soil. Plants require ions for healthy growth.
It also allows sugar molecules to be absorbed from lower concentrations in the gut into the blood which has a higher sugar concentration. Sugar molecules are used for cell respiration.

4. Stem cells

A stem cell is an undifferentiated cell of an organism which is capable of becoming other types of cells.
Stem cells from human embryos can be cloned & made to differentiate into most different types of human cells.
Stem cells from adult bone marrow can form many types of cells including blood cells.
Meristem tissue in plants can differentiate into any type of plant cell, throughout the life of the plant. Treatment with stem cells may be able to help conditions such as diabetes and paralysis.
Stem cells from meristems in plants can be used to produce clones of plants quickly and economically.

1. Levels of organisation

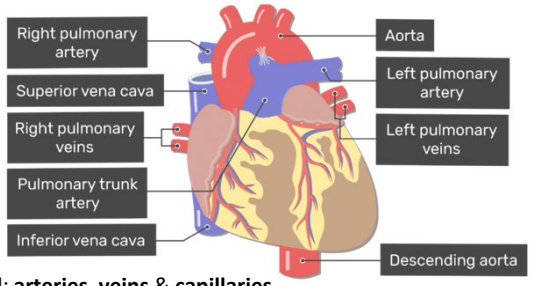
Cells are the basic building blocks of all living organisms.
A tissue is a group of cells with a similar structure and function.
Organs are aggregations of tissues performing specific functions.
Organs are organised into organ systems, which work together to form organisms.

2. Digestive juices

The digestive system is an example of an organ system in which several organs work together to digest and absorb food. Enzymes catalyse specific reactions in living organisms due to the shape of their active site.
Digestive enzymes convert food into small soluble molecules that can be absorbed into the bloodstream.
Carbohydrases break down carbohydrates to simple **sugars**. Amylase is a carbohydrase that breaks down starch.
Proteases break down proteins to **amino acids**.
Lipases break down lipids (fats) to **glycerol and fatty acids**.
These digested products are used to build new carbohydrates, lipids and proteins. Glucose is used in respiration.
Bile is made in the liver and stored in the gall bladder. It is alkaline to neutralise hydrochloric acid from the stomach. It also emulsifies fat to form small droplets which increases the surface area. The alkaline conditions and large surface area increase the rate of fat breakdown by lipase.

3. The heart and blood vessels

The heart is an organ that pumps blood around the body in a double circulatory system. The right ventricle pumps blood to the lungs for gas exchange. The left ventricle pumps blood around the rest of the body.
The natural resting heart rate is controlled by a group of cells located in the right atrium that act as a pacemaker. Artificial pacemakers are electrical devices used to correct irregularities in the heart rate.



The body contains three different types of blood vessel: **arteries, veins** & **capillaries**.
Blood is a tissue consisting of liquid plasma, with red blood cells, white blood cells & platelets suspended in it.

4. Health issues

Health is the state of physical and mental well-being.
Diseases, both communicable and non-communicable, are major causes of ill health. Other factors including diet, stress and life situations may have a profound effect on both physical and mental health.
Different types of disease may interact.

- Defects in the immune system mean that an individual is more likely to suffer from infectious diseases.
- Viruses living in cells can be the trigger for cancers.
- Immune reactions initially caused by a pathogen can trigger allergies such as skin rashes and asthma.
- Severe physical ill health can lead to depression and other mental illness.

5. Coronary heart disease: a non communicable disease

In coronary heart disease layers of fatty material build up inside the coronary arteries, narrowing them. This reduces the flow of blood through the coronary arteries, resulting in a lack of oxygen for the heart muscle. Stents are used to keep the coronary arteries open. Statins are widely used to reduce blood cholesterol levels which slows down the rate of fatty material deposit.
In some people heart valves may become faulty, preventing the valve from opening fully, or the heart valve might develop a leak. Faulty heart valves can be replaced using biological or mechanical valves.
In the case of heart failure a donor heart, or heart and lungs can be transplanted. Artificial hearts are occasionally used to keep patients alive whilst waiting for a heart transplant, or to allow the heart to rest as an aid to recovery.

6. The effect of lifestyle on some non-communicable diseases

Many diseases are caused by the interaction of a number of factors.
A causal mechanism has been proven for some risk factors, but not in others.

- The effects of diet, smoking and exercise on cardiovascular disease.
- Obesity as a risk factor for Type 2 diabetes.
- The effect of alcohol on the liver and brain function (and unborn babies).
- The effect of smoking on lung disease and lung cancer (and unborn babies).
- Carcinogens, including ionising radiation, as risk factors in cancer.

7. Cancer

Cancer can lead to uncontrolled growth and division of cells.
Benign tumours are abnormal cells which are contained in one area. They do not invade other parts of the body.
Malignant tumour cells are cancers. They invade neighbouring tissues and spread to different parts of the body in the blood where they form secondary tumours.

8. Plant tissues, organs and systems

The leaf is a plant organ.
Plant tissues include: epidermal tissues, palisade mesophyll, spongy mesophyll, xylem and phloem, meristem tissue found at the growing tips of shoots and roots.
The roots, stem and leaves form a plant organ system for transport of substances around the plant.
Root hair cells are adapted for the efficient uptake of water by osmosis, and mineral ions by active transport.
Xylem tissue transports water and mineral ions from the roots to the stems and leaves. It is composed of hollow tubes strengthened by lignin adapted for the transport of water in the transpiration stream.
The role of **stomata** and **guard cells** are to control gas exchange and water loss.
Phloem tissue transports dissolved sugars from the leaves to the rest of the plant for immediate use or storage.
The movement of food molecules through phloem tissue is called translocation.
Phloem is composed of tubes of elongated cells. Cell sap can move from one phloem cell to the next through pores in the end walls.

1. Atoms, mixtures and compounds

All substances are made of atoms. An atom is the smallest part of an element that can exist.

Atoms of each element are represented by a chemical symbol, eg O for oxygen or Na for sodium.

There are about 100 different elements. Elements are shown in the periodic table.

Compounds are formed from elements by chemical reactions. Chemical reactions always involve the formation of one or more new substances. Compounds contain two or more elements chemically combined. Compounds can only be separated into elements by chemical reactions.

A mixture consists of two or more elements or compounds not chemically combined together. The chemical properties of each substance in the mixture are unchanged. Mixtures can be separated by physical processes such as filtration, crystallisation, simple distillation, fractional distillation and chromatography.

2. History of the atom

Early model	Tiny spheres that could not be divided
Electron discovered	Plum pudding model – atom was ball of positive charge with negative electrons spread around inside it
Rutherford and Marsden scattering experiment	Plum pudding model is replaced with nuclear model – small central positive nucleus with negative electrons orbiting
Niels Bohr	Electrons orbit at specific distances
Later experiments	Positive charge in nucleus can be subdivided – protons
James Chadwick	Discovers neutron

3. Sub-atomic particles

The relative electrical charges and relative masses of the particles in atoms are:

Name of particle	Proton	Neutron	Electron
Relative charge	+1	0	-1
Relative mass	1	1	Very small

In an atom, the number of electrons is equal to the number of protons in the nucleus.

Atoms have no overall electrical charge.

The number of protons in an atom of an element is its atomic number.

Almost all of the mass of an atom is in the nucleus.

The sum of the protons and neutrons in an atom is its mass number.

Atoms of the same element can have different numbers of neutrons; these atoms are called isotopes.

Atoms are very small, having a radius of about 0.1 nm (1 x 10-10 m).

The radius of a nucleus is less than 1/10 000 of that of the atom (about 1 x 10-14 m).

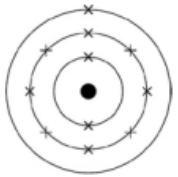
4. Representing atoms

Atoms can be represented as shown in this example: (Mass number) 23, (Atomic number) 11 Na

The relative atomic mass (A_r) of an element is an average value that takes account of the abundance of the isotopes of the element.

The electrons in an atom occupy the lowest available energy levels. The electronic structure of an atom can be represented by numbers or by a diagram.

e.g. The electronic structure of sodium is 2,8,1 or showing two electrons in the lowest energy level, eight in the second energy level and one in the third energy level.



5. The periodic table

The elements in the periodic table are arranged in order of atomic (proton) number and so that elements with similar properties are in columns, known as groups. The table is called a periodic table because similar properties occur at regular intervals.

Elements in the same group in the periodic table have the same number of electrons in their outer shell (outer electrons) and this gives them similar chemical properties.

The early periodic tables were incomplete and some elements were placed in inappropriate groups if the strict order of atomic weights was followed.

Mendeleev overcame some of the problems by leaving gaps (that were later filled) for elements that he thought had not been discovered and in some places changed the order based on atomic weights.

Elements that react to form positive ions are metals and those that do not are non-metals.

The majority of elements are metals. Metals are found to the left and towards the bottom of the periodic table. Non-metals are found towards the right and top of the periodic table.

The elements in Group 0 are called the noble gases. They are unreactive and do not easily form molecules because their atoms have stable arrangements of electrons. The noble gases have eight electrons in their outer shell, except for helium, which has only two electrons. The boiling points going down the group.

The elements in Group 1 are known as the alkali metals and have characteristic properties because of the single electron in their outer shell. They react rapidly with water and the reactivity increases going down the group.

The elements in Group 7 are known as the halogens and all have seven electrons in their outer shell. The further down the group the more the reactivity of the elements decreases.

A more reactive halogen can displace a less reactive halogen from an aqueous solution of its salt.

The transition elements are metals with similar properties which are different from those in Group 1.

Many transition elements have ions with different charges, form coloured compounds and are useful as catalysts.

Les jours de la semaine
lundi
mardi
mercredi
jeudi
vendredi
samedi
dimanche

Les mois
janvier
février
mars
avril
mai
juin
juillet
août
septmebre
octobre
novembre
décembre

Les nombres en français

0	zero	10	dix	20	vingt	30	trente
1	un	11	onze	21	vingt-et-un	31	trente-et-un
2	deux	12	douze	22	vingt-deux	32	trente-deux
3	trois	13	treize	23	vingt-trois	33	trente-trois
4	quatre	14	quatorze	24	vingt-quatre	34	trente-quatre
5	cinq	15	quinze	25	vingt-cinq	35	trente-cinq
6	six	16	seize	26	vingt-six	36	trente-six
7	sept	17	dix-sept	27	vingt-sept	37	trente-sept
8	huit	18	dix-huit	28	vingt-huit	38	trente-huit
9	neuf	19	dix-neuf	29	vingt-neuf	39	trente-neuf
40	quarante	50	cinquante	60	soixante	70	soixante-dix
41	quarante-et-un	51	cinquante-et-un	61	soixante-et-un	71	soixante-onze
42	quarante-deux	52	cinquante-deux	62	soixante-deux	72	soixante-douze
43	quarante-trois	53	cinquante-trois	63	soixante-trois	73	soixante-treize
44	quarante-quatre	54	cinquante-quatre	64	soixante-quatre	74	soixante-quatorze
45	quarante-cinq	55	cinquante-cinq	65	soixante-cinq	75	soixante-quinze
46	quarante-six	56	cinquante-six	66	soixante-six	76	soixante-seize
47	quarante-sept	57	cinquante-sept	67	soixante-sept	77	soixante-dix-sept
48	quarante-huit	58	cinquante-huit	68	soixante-huit	78	soixante-dix-huit
49	quarante-neuf	59	cinquante-neuf	69	soixante-neuf	79	soixante-dix-neuf

80	quatre-vingt	90	quatre-vingt-dix
81	quatre-vingt-et-un	91	quatre-vingt-onze
82	quatre-vingt-et-deux	92	quatre-vingt-douze
83	quatre-vingt-et-trois	93	quatre-vingt-treize
84	quatre-vingt-et-quatre	94	quatre-vingt-quatorze
85	quatre-vingt-et-cinq	95	quatre-vingt-quinze
86	quatre-vingt-et-six	96	quatre-vingt-seize
87	quatre-vingt-et-sept	97	quatre-vingt-sept
88	quatre-vingt-et-huit	98	quatre-vingt-dix-huit
89	quatre-vingt-et-neuf	99	quatre-vingt-dix-neuf

French SPAG marking

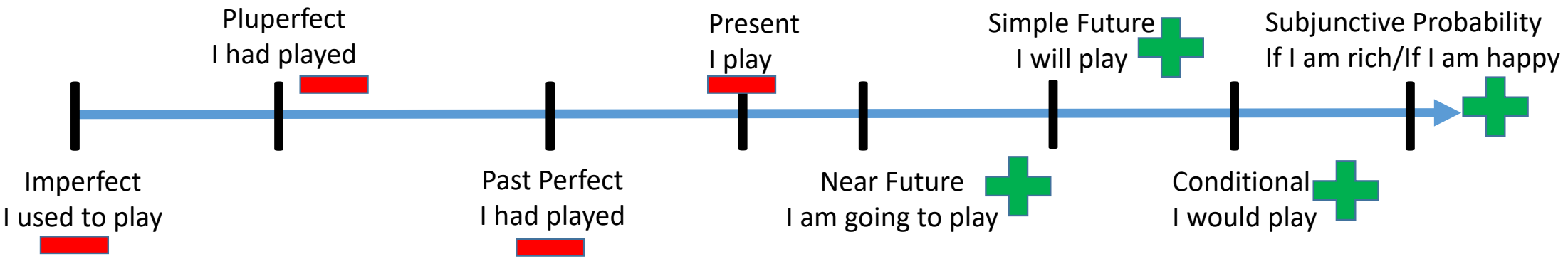
sp	Spelling
art	Article
vb	Verb
T	Tense
Acc	Accent
adj	Adjective incorrect/agreement
C	Capital
ww	Wrong word
?	Re-phrase/no sense
	Word re-order

100	cent	600	six cents	105	cent cinq	1,001	mille et un	74,000	soixante-quatorze mille
200	deux cents	700	sept cents	149	cent quarante-neuf	1,500	mille cinq cents	100,000	cent mille
300	trois cents	800	huit cents	181	cent quatre-vingt-un	1,766	sept cent soixante-six	1,000,000	un million
400	quatre cents	900	neuf cents	501	cinq cent un	2,001	deux mille un	3,000,000	trois millions
500	cinq cents	1,000	mille	565	cinq cent soixante-cinq	40,000	quarante mille	1,000,000,000	un-millard

French	Marking Sticker	CYCLE 1	All Years

Title:					
Detail	**WWW**	**EBI**	**Tenses**	**WWW**	**EBI**
Connectives	1 2 3		Present tense	1 2 3	
Opinions	1 2 3		Past Perfect	1 2 3	
Reasons (adjectives)	1 2 3		Imperfect	1 2 3	
Intensifiers	1 2 3		Conditional	1 2 3	
Time expressions	1 2 3		Simple Future	1 2 3	
Adverbs	1 2 3		Pluperfect	1 2 3	
Negatives	1 2 3		Perfect Conditional	1 2 3	
			Subjunctive	1	
Comparatives	plus moins		Modal Verbs	1	
Superlatives	le plus le moins le pire le meilleur		Other Persons	1 2 3	
			Quality of Work	Si j'avais le choix	
Si clause	1 2 3				
Openers	1 2 3		**1 Excellent**	Quand j'étais plus jeune	
Exclamation	1 2 3		**2 Good**	Pour que je sois contente	
Questions	1 2 3			Quand je serai plus âgé	
Total:			**4 Poor**	vu que	
				tandis que	
				Si je pourrais	
				Pour que je puisse	

French	Verb conjugation explanation	CYCLE 1	All Years



Tense	Add or Remove ending	Meaning	Example
Imperfect	Remove ending ER IR RE OIR	I used to play	Jouer – remove er – je jouais
Pluperfect	Remove ending ER IR RE OIR	I had played	Jouer – remove er – J'avais joué
Past perfect	Remove ending ER IR RE OIR	I have played	Jouer – remove er – j'ai joué
Present	Remove ER IR RE OIR	I play	Jouer – remove er – je joue
Near future	Add the infinitive	I am going to play	Jouer – add to the structure – je vais jouer
Simple future	Add to the infinitive ER IR RE	I will play	Jouer – add the ending to the end – je jouerai
Conditional	Add to the infinitive ER IR RE	I would play	Jouer – add the ending to the end – je jouerais
Subjunctive	Probability – If I am rich /If I am happy		Learn set sentences (marking sticker& writing frame)

*imperfect and conditional share endings

French	French Literacy Mat	CYCLE 1	All Years

Connectives
car / parce que = because
puisque = since
aussi = also
donc = therefore
puis = then
après = after
Ensuite = next/then
ou = or
cependant = however
par conséquent = as a result
étant donné que = given that
tandis que = whereas
vu que = considering that
Malgré = despite
Afin que = so that
Pourvu que = given that
Sauf = except
Magré = despite
En outre furthermore
Pour que = so that

Openers
D'abord = firstly
Par contre = On the other hand
Premièrement = Firstly
Deuxièment = Secondly
Troisièmement = Thirdly
Finalement = Finally
Pour moi = As for me

Subjunctive
Pour que je sois = so that I am
Pour que je puisse = so that I can
Il faut que = It is necessary that
Il est essential qu'il aie = it is essential that there is…
Il est necessaire qu'on fasse = it is necessary that we do

Questions
Pourquoi? = Why
Qui? = Who?
Quand? = When?
Comment? = How?
Que = What?
N'est-ce pas? = Isn't it?
As-tu / Avez-vous? = Do you have?

Intensifiers
très = very
assez = quite
un peu = a little
vraiment = really
beaucoup = a lot

Complex Opinions
Je pense que = I think that
J'estime que = I consider that
Je crois que = I believe that
Il me semble que = It seems to me that
Je trouve que = I find that
À mon avis = in my opinion
En ce qui me concerne = Concerning me
Je suis d'accord car = I agree because

Time Phrases
Aujourd'hui = Today
Hier = Yesterday
Demain = Tomorrow
En été = In summer
En hiver = In winter
L'année dernière = Last year
L'année prochaine = Next year
À l'avenir = In the future
La semaine dernière = Last week
Le mois prochain = Next month

Adjectival Agreement
un garçon intelligent = a clever boy
une fille intelligente = a clever girl
un pull bleu = a blue jumper
une veste grise = a grey blazer
une cravate violette = a purple tie
une chemise blanche = a white shirt

Adverbs
d'habitude = Usually
normalement = normally
quelquefois = sometimes
tous les jours = every day
généralement = generally

Superlatives
le / la moins = the least
le / la plus = the most
le / la pire = the worst
le / la mieux = the best

Exclamation
Quel surprise! = What a surprise!
Quel chance! = What luck!
Quel dommage! = What a shame!
Quel horreur! = What horror!

Negatives
ne… pas = not
ne… jamais = never
ne… que = only
ni… ni = neither… nor
ne… plus = not anymore

Comparatives
plus… que = more… than
moins… que = less… than

Reasons (Adjectives)
c'est… = it is…
c'était… = it was…
ce sera… = it will be…
ce serait…=it would be…

intéressant = interesting
passionnant = exciting
sympa = nice
époustouflant = mind-blowing
triste = sad
affreux = terrible
épouvantable = dreadful
bizarre = strange
sale = dirty
propre = clean
bruyant = noisy
tranquille = calm
beau/joli = nice
cher = expensive
différent = different
ennuyeux = boring
mauvais/mal = bad
paresseux = lazy
vieux = old
propre = clean
facile = easy
moche/ laid = ugly
grand = big
petit = small

Pluperfect	Past Imperfect	Past Perfect	Present Tense	Near Future	Simple Future	Conditional	Perfect Conditional
INFINITIVE: porter = to wear (Regular er)							
I had worn	I used to wear	I wore	I am wearing/I wear	I am going to wear	I will wear	I would wear	I would have worn
Je (J') avais **porté**	**Je (J')** port **ais**	**Je (J')** ai **porté**	**Je (J')** port **e**	**Je (J')** vais **porter**	**Je (J')** porter **ai**	**Je (J')** porter **ais**	**Je (J')** aurais **porté**
Tu avais **porté**	**Tu** port **ais**	**Tu** as **porté**	**Tu** port **es**	**Tu** vas **porter**	**Tu** porter **as**	**Tu** porter **ais**	**Tu** aurais **porté**
Il avait **porté**	**Il** port **ait**	**Il** a **porté**	**Il** port **e**	**Il** va **porter**	**Il** porter **a**	**Il** porter **ait**	**Il** aurait **porté**
Elle avait **porté**	**Elle** port **ait**	**Elle** a **porté**	**Elle** port **e**	**Elle** va **porter**	**Elle** porter **a**	**Elle** porter **ait**	**Elle** aurait **porté**
On avait **porté**	**On** port **ait**	**On** a **porté**	**On** port **e**	**On** va **porter**	**On** porter **a**	**On** porter **ait**	**On** aurait **porté**
Nous avions **porté**	**Nous** port **ions**	**Nous** avons **porté**	**Nous** port **ons**	**Nous** allons **porter**	**Nous** porter **ons**	**Nous** porter **ions**	**Nous** aurions **porté**
Vous aviez **porté**	**Vous** port **iez**	**Vous** avez **porté**	**Vous** port **ez**	**Vous** allez **porter**	**Vous** porter **ez**	**Vous** porter **iez**	**Vous** auriez **porté**
Ils avaient **porté**	**Ils** port **aient**	**Ils** ont **porté**	**Ils** port **ent**	**Ils** vont **porter**	**Ils** porter **ont**	**Ils** porter **aient**	**Ils** auraient **porté**
Elles avaient **porté**	**Elles** port **aient**	**Elles** ont **porté**	**Elles** port **ent**	**Elles** vont **porter**	**Elles** porter **ont**	**Elles** porter **aient**	**Elles** auraient **porté**
INFINITIVE: finir = to finish (ir)							
I had finished	I used to finish	I finished	I am finishing/ I finish	I am going to finish	I will finish	I would finish	I would have finished
Je (J') avais **fini**	**Je (J')** finiss **ais**	**Je (J')** ai **fini**	**Je (J')** fin **is**	**Je (J')** vais **finir**	**Je (J')** finir **ai**	**Je (J')** finir **ais**	**Je (J')** aurais **fini**
Tu avais **fini**	**Tu** finiss **ais**	**Tu** as **fini**	**Tu** fin **is**	**Tu** vas **finir**	**Tu** finir **as**	**Tu** finir **ais**	**Tu** aurais **fini**
Il avait **fini**	**Il** port **ait**	**Il** a **fini**	**Il** fin **it**	**Il** va **finir**	**Il** finir **a**	**Il** finir **ait**	**Il** aurait **fini**
Elle avait **fini**	**Elle** finiss **ait**	**Elle** a **fini**	**Elle** fin **it**	**Elle** va **finir**	**Elle** finir **a**	**Elle** finir **ait**	**Elle** aurait **fini**
On avait **fini**	**On** finiss **ait**	**On** a **fini**	**On** fin **it**	**On** va **finir**	**On** finir **a**	**On** finir **ait**	**On** aurait **fini**
Nous avions **fini**	**Nous** finiss **ions**	**Nous** avons **fini**	**Nous** fin **issons**	**Nous** allons **finir**	**Nous** finir **ons**	**Nous** finir **ions**	**Nous** aurions **fini**
Vous aviez **fini**	**Vous** finiss **iez**	**Vous** avez **fini**	**Vous** fin **issez**	**Vous** allez **finir**	**Vous** finir **ez**	**Vous** finir **iez**	**Vous** auriez **fini**
Ils avaient **fini**	**Ils** finiss **aient**	**Ils** ont **fini**	**Ils** fin **issent**	**Ils** vont **finir**	**Ils** finir **ont**	**Ils** finir **aient**	**Ils** auraient **fini**
Elles avaient **Fini**	**Elles** finiss **aient**	**Elles** ont **fini**	**Elles** fin **issent**	**Elles** vont **finir**	**Elles** finir **ont**	**Elles** finir **aient**	**Elles** auraient **fini**
INFINITIVE: attendre = to wait (re)							
I had waited	I used to wait	I waited	I am waiting/ I wait	I am going to wait	I will wait	I would wait	I would have waited
Je (J') avais **attendu**	**Je (J')** attend **ais**	**Je (J')** ai **attendu**	**Je (J')** attend **s**	**Je (J')** vais **attendre**	**Je (J')** attendr **ai**	**Je (J')** attendr **ais**	**Je (J')** aurais **attendu**
Tu avais **attendu**	**Tu** attend **ais**	**Tu** as **attendu**	**Tu** attend **s**	**Tu** vas **attendre**	**Tu** attendr **as**	**Tu** attendr **ais**	**Tu** aurais **attendu**
Il avait **attendu**	**Il** attend **ait**	**Il** a **attendu**	**Il** attend _	**Il** va **attendre**	**Il** attendr **a**	**Il** attendr **ait**	**Il** aurait **attendu**
Elle avait **attendu**	**Elle** attend **ait**	**Elle** a **attendu**	**Elle** attend _	**Elle** va **attendre**	**Elle** attendr **a**	**Elle** attendr **ait**	**Elle** aurait **attendu**
On avait **attendu**	**On** attend **ait**	**On** a **attendu**	**On** attend _	**On** va **attendre**	**On** attendr **a**	**On** attendr **ait**	**On** aurait **attendu**
Nous avions **attendu**	**Nous** attend **ions**	**Nous** avons **attendu**	**Nous** attend **ons**	**Nous** allons **attendre**	**Nous** attendr **ons**	**Nous** attendr **ions**	**Nous** aurions **attendu**
Vous aviez **attendu**	**Vous** attend **iez**	**Vous** avez **attendu**	**Vous** attend **ez**	**Vous** allez **attendre**	**Vous** attendr **ez**	**Vous** attendr **iez**	**Vous** auriez **attendu**
Ils avaient **attendu**	**Ils** attend **aient**	**Ils** ont **attendu**	**Ils** attend **ent**	**Ils** vont **attendre**	**Ils** attendr **ont**	**Ils** attendr **aient**	**Ils** auraient **attendu**
Elles avaient **attendu**	**Elles** attend **aient**	**Elles** ont **attendu**	**Elles** attend **ent**	**Elles** vont **attendre**	**Elles** attendr **ont**	**Elles** attendr **aient**	**Elles** auraient **attendu**

Present Tense Regular Verbs

ER verb habiter = to live			**IR verb** finir = to finish			**RE verb** attendre = to wait		
Je (J')	habit **e**	*I live*	**Je (J')**	fin **is**	*I finish*	**Je (J')**	attend **s**	*I wait*
Tu	habit **es**	*You live (s/informal)*	**Tu**	fin **is**	*You finish (s/informal)*	**Tu**	attend **s**	*You wait (s/informal)*
Il	habit **e**	*He lives*	**Il**	fin **it**	*He finishes*	**Il**	attend **_**	*He waits*
Elle	habit **e**	*She lives*	**Elle**	fin **it**	*She finishes*	**Elle**	attend **_**	*She waits*
On	habit **e**	*We live*	**On**	fin **it**	*We finish*	**On**	attend **_**	*We wait*
Nous	habit **ons**	*We live*	**Nous**	fin **issons**	*We finish*	**Nous**	attend **ons**	*We wait*
Vous	habit **ez**	*You live (pl/formal)*	**Vous**	fin **issez**	*You finish (pl/formal)*	**Vous**	attend **ez**	*You wait (pl/formal)*
Ils	habit **ent**	*They live (m/mixed)*	**Ils**	fin **issent**	*They finish (m/mixed)*	**Ils**	attend **ent**	*They wait (m/mixed)*
Elles	habit **ent**	*They live (f)*	**Elles**	fin **issent**	*They finish (f)*	**Elles**	attend **ent**	*They wait (f)*

Present Tense Irregular Verbs

avoir = to have			**être = to be**			**faire = to do**			**aller = to visit**		
Je (J')	**ai**	*I have*	**Je (J')**	**suis**	*I am*	**Je (J')**	**fais**	*I do*	**Je (J')**	**vais**	*I go*
Tu	**as**	*You have (s/informal)*	**Tu**	**es**	*You are (s/informal)*	**Tu**	**fais**	*You do (s/informal)*	**Tu**	**vais**	*You go (s/informal)*
Il	**a**	*He has*	**Il**	**est**	*He is*	**Il**	**fait**	*He does*	**Il**	**va**	*He goes*
Elle	**a**	*She has*	**Elle**	**est**	*She is*	**Elle**	**fait**	*She does*	**Elle**	**va**	*She goes*
On	**a**	*We have*	**On**	**est**	*We are*	**On**	**fait**	*We do*	**On**	**va**	*We go*
Nous	**avons**	*We have*	**Nous**	**sommes**	*We are*	**Nous**	**faisons**	*We do*	**Nous**	**allons**	*We go*
Vous	**avez**	*You have (pl/formal)*	**Vous**	**êtes**	*You are (pl/formal)*	**Vous**	**faites**	*You do (pl/formal)*	**Vous**	**allez**	*You go (pl/formal)*
Ils	**ont**	*They have (m/mixed)*	**Ils**	**sont**	*They are (m/mixed)*	**Ils**	**font**	*They do (m)*	**Ils**	**vont**	*They go (m/mixed)*
Elles	**ont**	*They have (f)*	**Elles**	**sont**	*They are (f)*	**Elles**	**font**	*They do (f)*	**Elles**	**vont**	*They go (f)*

French	Verbs	CYCLE 1	All Years

Present Tense	Past Perfect	Immediate Future	Conditional	Simple Future	Past Imperfect	Past Pluperfect	Perfect Conditional
INFINITIVE: aller = to go **(Irregular)**							
I am going / I go	I have gone / I went	I am going to go	I would go	I will go	I was going / I used to go	I had gone	I would have gone
Je (J') v **ais**	**Je (J')** suis **allé(e)**	**Je (J')** vais **aller**	**Je (J')** ir **ais**	**Je (J')** ir **ai**	**Je (J')** all **ais**	**Je (J')** étais **allé(e)**	**Je (J')** serais **allé(e)**
Tu v **as**	**Tu** es **allé(e)**	**Tu** vas **aller**	**Tu** ir **ais**	**Tu** ir **as**	**Tu** all **ais**	**Tu** étais **allé(e)**	**Tu** serais **allé(e)**
Il v **a**	**Il** est **allé(e)**	**Il** va **aller**	**Il** ir **ait**	**Il** ir **a**	**Il** all **ait**	**Il** était **allé(e)**	**Il** serait **allé(e)**
Elle v **a**	**Elle** est **allé(e)**	**Elle** va **aller**	**Elle** ir **ait**	**Elle** ir **a**	**Elle** all **ait**	**Elle** était **allé(e)**	**Elle** serait **allé(e)**
On v **a**	**On** est **allé(e)**	**On** va **aller**	**On** ir **ait**	**On** ir **a**	**On** all **ait**	**On** était **allé(e)**	**On** serait **allé(e)**
Nous all **ons**	**Nous** sommes **allé(e/s)**	**Nous** allons **aller**	**Nous** ir **ions**	**Nous** ir **ons**	**Nous** all **ions**	**Nous** étions **allé(e/s)**	**Nous** serions **allé(e/s)**
Vous all **ez**	**Vous** êtes **allé(e/s)**	**Vous** allez **aller**	**Vous** ir **iez**	**Vous** ir **ez**	**Vous** all **iez**	**Vous** étiez **allé(e/s)**	**Vous** seriez **allé(e/s)**
Ils v **ont**	**Ils** sont **allé(e/s)**	**Ils** vont **aller**	**Ils** ir **aient**	**Ils** ir **ont**	**Ils** all **aient**	**Ils** étaient **allé(e/s)**	**Ils** seraient **allé(e/s)**
Elles v **ont**	**Elles** sont **allé(e/s)**	**Elles** vont **aller**	**Elles** ir **aient**	**Elles** ir **ont**	**Elles** all **aient**	**Elles** étaient **allé(e/s)**	**Elles** seraient **allé(e/s)**
INFINITIVE: faire = to do / make **(Irregular)**							
I am doing/ I do	I have done / I did	I am going to do	I would do	I will do	I was doing / I used to do	I had done	I would have done
Je (J') f **ais**	**Je (J')** ai **fait**	**Je (J')** vais **faire**	**Je (J')** fer **ais**	**Je (J')** fer **ai**	**Je (J')** fais **ais**	**Je (J')** avais **fait**	**Je (J')** aurais **fait**
Tu f **ais**	**Tu** as **fait**	**Tu** vas **faire**	**Tu** fer **ais**	**Tu** fer **as**	**Tu** fais **ais**	**Tu** avais **fait**	**Tu** aurais **fait**
Il f **ait**	**Il** a **fait**	**Il** va **faire**	**Il** fer **ait**	**Il** fer **a**	**Il** fais **ait**	**Il** avait **fait**	**Il** aurait **fait**
Elle f **ait**	**Elle** a **fait**	**Elle** va **faire**	**Elle** fer **ait**	**Elle** fer **a**	**Elle** fais **ait**	**Elle** avait **fait**	**Elle** aurait **fait**
On f **ait**	**On** a **fait**	**On** va **faire**	**On** fer **ait**	**On** fer **a**	**On** fais **ait**	**On** avait **fait**	**On** aurait **fait**
Nous f **aisons**	**Nous** avons **fait**	**Nous** allons **faire**	**Nous** fer **ions**	**Nous** fer **ons**	**Nous** fais **ions**	**Nous** avions **fait**	**Nous** aurions **fait**
Vous f **aitez**	**Vous** avez **fait**	**Vous** allez **faire**	**Vous** fer **iez**	**Vous** fer **ez**	**Vous** fais **iez**	**Vous** aviez **fait**	**Vous** auriez **fait**
Ils f **ont**	**Ils** ont **fait**	**Ils** vont **faire**	**Ils** fer **aient**	**Ils** fer **ont**	**Ils** fais **aient**	**Ils** avaient **fait**	**Ils** auraient **fait**
Elles f **ont**	**Elles** ont **fait**	**Elles** vont **faire**	**Elles** fer **aient**	**Elles** fer **ont**	**Elles** fais **aient**	**Elles** avaient **fait**	**Elles** auraient **fait**

DR/MRS VANDERTRAMP verbs take <u>être</u> not <u>avoir</u>

Descendre – je suis descendu(e)(s) - to come down (stairs)
Rester – je suis resté(e)(s) - to stay
Monter – je suis monté(e)(s) - to climb
Revenir – je suis revenu (e)(s) - to return
Sortir – je suis sorti(e)(s) - to go out
Venir – Je suis venue (e)(s) - to come
Aller – je suis allé(e)(s) - to go
Naître - je suis né(e)(s) - to be born

Devenir – je suis devenu(e)(s) - to become
Entrer – je suis entré(e)(s) - to enter
Rentrer – je suis rentré(e)(s) - to re-enter
Tomber – je suis tombé(e)(s) - to fall
Retourner – je suis retourné(e)(s) - to return
Arriver- je suis arrivé(e)(s) - to arrive
Mourir – je suis mort(e)(s) - to die
Partir – je suis parti(e)(s) - to leave

French	Holidays	CYCLE 1	Year 9

Week 1		Week 2		Week 3			
Weather		**Countries**		**Forms of Travel**		**Adjectives**	
Il fait beau	It's fine	En Allemagne	In/to Germany	en avion	by plane	cher	expensive
Il fait du soleil	It's sunny	Au Maroc	In/to Morroco	en train	by train	moins cher	cheap
Il fait chaud	It is hot	En France	In /to France	en autobus	by bus	rapide	quick
Il fait froid	It is cold	En Espagne	In/to Spain	en car	by coach	lent	slow
Il pleut	It's raining	En Angleterre	In/to England	en voiture	by car	polluant	polluting
Il neige	It's snowing	Aux États-Unis	In/to the USA	en bateau	by boat	pratique	practical
Il fait du vent	It's windy	En Turquie	In/to Turkey	en TGV	by high speed train	confortable	comfortable
Il fait mauvais	It is bad weather	En Amérique	In/To America	à pied	on foot	trop long	too long
Il y a des nuages	It's cloudy	En Inde	In/To India	à vélo	by bike	relaxant	relaxing
Il y a de l'orage	It's stormy	Au méxique	In/to Mexico	à métro	by underground	intéressant	interesting

Week 4		Week 4		Week 5		Week 5	
Places to stay		**Hotel facilities**		**Verbs**		**Activities**	
Une gite	A holiday home	Un balcon avec une vue	A balcony with a view	Rester	To stay	Jouer du sport	To play sport
Une caravane	A caravan	Une piscine	A swimming pool	Habiter	To live	Aller à un parc aquatique	To go to a water park
Une tente	A tent	La plage	The beach	Louer	To hire	Aller à un parc d'attractions	To go to an amusement park
Un chateau	A castle	Un discothèque	A disco	Partager	To share	Visiter un musée	To visit a museum
Un chalet	wooden house in mountains	La climatisation	Air con	Reposer	To relax	Apprécier une galérie d'arts	To appreciate art galleries
Un appartement	An apprtment	Une douche/ Un bain	A shower / a bath	Relaxer	To relax	Faire la plongée	To go diving
Un studio	A studio/ single room	Un double lit / un grand lit	A double bed	Dormir	To sleep	Manger dans un restaurant	To eat in a restaurant
Un auberge de jeunnesse	A youth hostel	Une connexion internet	Internet	Passer du temps	To spend time	Faire les magasins	To go shopping
Une villa	A villa	Petit-déjeuner compris	Breakfast included	Voyager	To travel	Faire du tourisme	To do tourist activities

French		Holidays		CYCLE 1	Year 9
Week 6		**Week 7**		**Week 8**	
				House	
j'irais	I would stay	je sortirais	I would go out	une maison	house
je visiterais	I would visit	je nagerais	I would swim	un appartement	appartment
je resterais	I would stay	je me bronzerais	I would tan	une maison de ville	town house
je jouerais	I would play	il y aurait	There would be	une gîte	holiday house
je relaxerais	I would relax	ce serait	It would be	une fermette	farm house
je voyagerais	I would travel	je voudrais	I would like	un pavillon	bungalow
je mangerais	I would eat	je pourrais	I could	une grange	barn
je louerais	I would hire	je rentrerais	I would enter	monument historique	listed building
je danserais	I would danse	j'admirerais	I would admire	trois étages	three floors
je visiterais	I would visit	je profiterais	I would make the most of	un studio	studio

French	Town	CYCLE 1	Year 9

Week 9		Week 10				Week 11	
Rooms in a House		Places in Town				Advantages vs Disadvantages	
une chambre	a bedroom	une bibiothèque	a library	une galérie d'art	an art gallery	il y a	there is / are
un salle de bain	a bathroom	une église	a church	une maison de jeunesse	a youth club	il n'y a pas de	there is / are not
une cuisine	a kitchen	un chateau	a castle	un commisariat	a police office	on peut	you can
un salon	a lounge	une piscine	a swimming pool	un cinéma	a cinema	on ne peut pas	you cannot
au rez-de-chaussée	on the ground floor	une patinoire	an icerink	des restaurants	some restaurants	il y avait	there used to be
des éscaliers	the stairs	un supermarché	a supermarket	une cathédrale	a cathedral	c'est	it is
un bureau	an office	un musée	a museum	des magasins	some shops	c'était	it was
un grenier	an attic	un centre commercial	a shopping centre	une mosquée	a mosque	l'avantage	the advantage
un jardin	a garden	un parc d'attraction	a theme park	un stade de foot	a football stadium	l'inconvénient	the disadvantage
une salle à manger	a dining room	un centre sportif	a sports centre	un college/école	a secondary / primary school		

Week 12				Week 13					
Adjectives				Future Plans		Ideal Town - Conditional			
sale	dirty	animé	dynamic	j'irai	I will go	j'irais	I would go	je visiterais	I would visit
propre	clean	peuplé	populated	j'habiterai	I will live	je ferais	I would do	j'aurais	I would have
grand/petit	big / small	pollué	polluted	je rencontrai	I will meet	je voudrais	I would like	je marcherais	I would walk
moderne/vieux	modern / old	distrayant (e)	distracting	il y aura	There will be	j'aimerais	I would like	je jouerais	I would play
joli(e)	pretty	agréable	pleasant	je mangerai	I will eat	je mangerais	I would eat	j'acheterais	I would buy
tranquille	peaceful	désagreable	unpleasant	je sortirai	I will go out	je pourrais	I could	je regarderais	I would watch
bruyant	noisy	touristique	touristic	je jouerai	I will play	ce serait	It would be	je me relaxerais	I would relax
occupé	busy	intéressant	interesting	je regarderai	I will watch	j'habiterais	I would live	je détesterais	I would hate
calme	quiet	affreux (euse)	dreadful	je relaxerai	I will relax	il y aurait	There would be	je louerais	I would hire

Geography	The Future	CYCLE 1	YEAR 9

Box	Key Knowledge to learn	
1 – Future Misconceptions and The Future of the EU	**Future Misconceptions** • In all LICs across the world today, 60% of girls finish primary school • Majority of the world live in NEEs • In the last 20 years, the proportion of the world population in extreme poverty has almost halved • The average life expectancy is the world is 70 years • 80% of the worlds 1-year old children today have been vaccinated against some disease • 80% of people in the world have some access to electricity	• European Union - a **group** of **27 countries** following **similar laws** à the **UK left** the **EU** on the 31st January **2020** (BREXIT) • **1957 -** The European Economic Community (EEC) is created. The member countries are Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany. The group aims to remove trade barriers and form a common market. • The objectives of the European Union are to establish European citizenship, ensure freedom, justice and security, promote economic and social progress, and assert Europe's role in the world. The capital of the European Union is Brussels, Belgium.
2 – Brexit and Problem with Energy	**Reasons for Leaving the EU** • We get control over all laws created • We get control over immigration **within** the EU • Don't pay £50 million a week membership fee • We may have to pay to enter EU countries • Goods imported to the UK may become more expensive • We would set our own taxes • More low paid jobs available • We can decide who we trade with • We won't have limits set on us like how much fish we can take from the sea.	**Problem with Energy** In the past, the UK was heavily reliant on fossil fuels such as coal, oil and gas. It is projected that in the future we will use more renewable energy. Energy supply and demand has increased overtime due to increase use of transport and industry. **Carbon Footprint =** The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization, or community.
3 – Solving the energy problem and the problem with food	**Solving the energy problem** **Energy Consumption - The amount of energy or power used** **Renewable Energy** - is naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat Examples of Renewable energy include: Solar, Hydroelectric power and wind power	**The Problem with Food** • **Malnutrition -** lack of proper nutrition, caused by not having enough to eat, not eating enough of the right things. • 1 billion in 2012 are hungry in the world which means 1 person out of 7. • Our planet has enough food so hunger shouldn't exist. • Bolivia, Democratic Republic of Congo and Ethiopia are struggling with hunger though they have lots of food and mostly work in agriculture. These countries have the highest rate of malnutrition. 41% of Ethiopians are undernourished. • 60% of people globally that are hungry tend to work in farming. • USA has lower rates of hunger and they struggle with obesity.

Geography	The Future	CYCLE 1	YEAR 9

Box	Key Knowledge to learn	
4 – Solving the problem of Food and the Plastic Crisis	**Solving the problem of Food** **Lab Grown Food** more and more companies are beginning to produce meat in labs as a way to combat such issues as greenhouse gases emissions, overfishing and animal welfare concerns. They use stem cells to produce this meat **Insects as a food source** Some countries have been eating insects for centuries and it isn't a new thing for example, countries in central America and Asia. 2 billion eat insects as part of their diet. Insects are very nutritious, have valuable fatty acids and are high in calcium. However some insects may cause an allergic reaction.	**Plastic Crisis** • In 1950 the world produced only 2 million tonnes per year. Since then, annual production has increased nearly 200-fold, reaching 381 million tonnes in 2015. For context, this is roughly equivalent to the mass of two-thirds of the world population. • With the largest population, China produced the largest quantity of plastic, at nearly 60 million tonnes. This was followed by the United States at 38 million, Germany at 14.5 million and Brazil at 12 million tonnes.
5 – Causes and Impacts of Plastic	**Causes of Plastic Pollution** **Fishing Nets** - Commercial fishing is an economic necessity for many parts of the world. However, the nets used for certain large-scale trolling operations are usually made of plastic. These leaking toxins at will, but they also often get broken up or lost. **It is Overused** - As plastic is less expensive, it is one of the most widely available and overused item in the world today. When disposed of, it does not decompose easily and pollutes the land or air. **Disposing of Plastic and Garbage** - Because plastic is meant to last, it is nearly impossible to break down. Burning plastic is incredibly toxic and can lead to harmful atmospheric conditions and deadly illness. Therefore, if it is in a landfill, it will never stop releasing toxins in that area.	**Impacts of Plastic Pollution** ✓ **It Upsets the Food Chain** ✓ **Groundwater Pollution** ✓ **Land Pollution** ✓ **Air Pollution** ✓ **It Kills Animals** ✓ **It is Poisonous** ✓ **It is Expensive to clean up**
6 – HS2	**Advantages and disadvantages of HS2** Journey times from London to Birmingham will be less than one hour. The £2-£3bn annual capital investment will help create jobs The environmental impact will be mitigated by 'green tunnels' and planting of trees The costs of HS2 continue to rise. Initially, in 2015, the project was forecast to cost £56bn but could now the total cost could soar to over £100bn Forecasts for passenger numbers are uncertain Noise pollution is a concern also . 	**Bradford Regeneration** **Urban decline - i**s the deterioration of the inner **city** often caused by lack of investment and maintenance. **Regeneration -** means improving an area that has been experiencing a period of decline. Examples of how Bradford has been regenerated are as follows: The Broadway Shopping Centre; Lister Mills renovation into flats; Plans for a new Bradford Food Market; and Sunbridge wells bars and pubs.

History	The First World War	Cycle 1	Year 9

SECTION A: KEY TERMS		Second Order Concept - Change and Continuity What stayed the same of changed because of Britain's involvement in the First World War
Central Powers Germany and Austria-Hungary. They were helped later by the Ottoman Empire (Turkey). Enemies of the Triple Entente.	**Triple Entente** Britain, France and Russia. They were helped later by the USA. Enemies of the Central Powers.	
Trenches Where the ground is dug up in order to provide protection from the enemy. The trenches stretched from the North Sea to the Alps.	**Propaganda** Information used to promote a particular view or cause. Propaganda posters were put up in Britain to persuade men to fight	
No Man's Land The area between two opposing lines of enemy trenches. Battles happened here	**Patriotism** Demonstrating love or devotion to one's country.	

SECTION B: The Causes of WW1 ? The First World War (WW1) was a global conflict. The main countries involved were: The Central Powers (see above) and the Triple Entente (see above). -In 1917, Russia left the war, however the USA joined on the side of Britain and France.

1. Imperialism	2. Alliances	3. Race for Biggest Army (Arms Race)	4. Nationalism	5. Assassination of Archduke Franz Ferdinand
European nations had been competing to have the biggest Empires for 100s of years. This is **imperialism**.	Imperialism had made the Europeans suspicious of one another, and create **alliances** for their own protection. The Central Powers promised to protect each other if attacked. The Triple Entente did the same. These countries were now rivals.	Rivalry led Germany and Britain to compete to have bigger **armies and navies**. They tried to build more warships than one another.	The arms race, alliances and imperialism all promoted **nationalism** – the feeling that your country and its people are better than other countries. Serb nationalism led to the creation of the Black Hand terrorist group.	A Serb nationalist from the Black Hand terrorist group **assassinated Franz Ferdinand**, son of the Austro-Hungarian emperor. Austria-Hungary attacked Serbia, who was defended by Russia. This dragged Germany, France and Britain into the war because of their alliances.

Section C – Women at War	Women After the War
• Women did work before world war one, mainly in the textile industries, or more traditional roles such as nurses, teachers • At war women worked in ammunitions by 1918, 950,000 had been recruited • Some worked in Women's Army Auxiliary Corps (WAAC), Women's RAF or Air Force, by 1918 over 100,000 • 80,000 volunteered to train as nurses, some deployed to frontline hospitals • Still paid less than men for the same job • The first women police officers employed • Women still took care of family whilst men at war, although day nurseries did begin to open • Campaign for women's suffrage (the vote) was put on hold • Women played competitive sport e.g football	• More women did experience freedom and confidence from role played in war • As men returned from war, women lost the jobs they had been doing • Those that still worked, still had unequal pay • Many women struggled to look after family if they had lost husbands in war • Women struggled to find husbands due to high number of male deaths, the 'lost generation' • Some more professional roles began to open in medicine for example as long as they were unmarried • Women won the right to vote in 1918, but only if over 30 • 1919 the Sex Disqualification (Removal) Act was passed making it illegal to not give a woman a job because of her gender

Section D – British Colonists during the War	British Colonists after the War
• British colonies sent over two and half million men from five continents to fight for the empire • They came from New Zealand, Australia, Canada, India, Africa • They were an important source of labour and materials • Colonial soldiers volunteered because they felt loyalty to Britain or they needed a job • Many faced racism when fighting with the British Army or lack of equipment • Many colonial soldiers were used to do more manual labour such as digging trenches, moving supplies or clearing battlefields	• 74,000 Indian and 1250 West Caribbean troops died in WWI • Fighting for Britain in war led many colonists to demand a greater independence from Britain • April 1919, at Amritsar Indians demonstrated peacefully for greater freedom, 379 were killed by armed British troops • It was followed by further protests leading the British to work on government reforms which would help Gandhi and others to demand further independence • In the Caribbean many workers went on strike to demand better working conditions • It was not until after WW2 that colonies would be granted full independence

History	1920s America	Cycle 1	Year 9

Section E: Key Words

Main Key Concepts

Prosperity – being successful or thriving
Equality - everyone is equal in rights, status or opportunities
Prejudice – a preconceived idea not based on experience or reason
Persecution – hostility or ill treatment because of their ethnic background or race or belief's
Discrimination – the prejudicial treatment of different types of people based on their background
Civil Rights – the right to political and social freedom and equality.

Second Order Concept – Diversity
How different were peoples experiences of living in the US at this time.

Prosperity

- Early 20th Century America experienced a period of economic prosperity.
- They had supplies of oil, coal and gas
- New manufacturing methods such as the assembly line, mass production
- Entrepreneurs such as Henry Ford generated wealth in primary and secondary industries

Social Prosperity

- Jazz music increase in popularity with young people and was heard in the 'speakeasies' underground nightclubs
- New dances were created, more fun and light-hearted such as the Charleston or lindy hop
- Cinema was even more popular, silent films progressing to 'talkies' in 1927
- Hollywood films stars would be idolised

Section F: African American Experiences

By 1920 12 million black people living in America with 75% of them living in the south.

The South

- The Jim Crow laws legalised segregation and made it harder to gain political and economic equality
- They had separate theatres, parks, toilets, schools, cemeteries, hospitals
- They could not serve on juries
- Schools were deliberately kept underfunded so illiteracy was high
- Laws made it hard for Black Americans to vote
- The KKK were white supremacists, against Black Americans, Jews, Catholics and immigrants
- The KKK (Ku Klux Klan) were very active, persecuting Black Americans by violently attacking them or their properties or at worse carrying out lynching
- By 1929 the KKK had 5 million members

The North

- Although they did not have the Jim Crow Laws, they was still racism and discrimination
- They did not have equal wages with those doing the same jobs
- Car factories for example only employed a minority of Black American workers
- Most lived in the most impoverished areas and forced into Ghettos
- Some did have better educational prospects and were at an advantage to those in the south

Section G: Women

Women Pre War

- Had to behave modestly and wear long dresses
- Had to be chaperoned (accompanied) by an older woman if went out
- Employed in jobs traditionally associated by women such as secretaries or nurses
- Not acceptable to smoke
- Access to higher education limited

After the War

- 1920 19th Amendment gave the vote to women
- More women began careers in politics
- By 1945, 145 women had seats in 35 state governments
- By 1929 10.6 million women employed outside of home
- Women's fashions began to change, they cut their hair short, and the dresses they wore got shorter, they also experienced more social freedom, they became known as 'flappers
- Hollywood women began to become role models particularly to middle class women
- However, they were not given equal pay to men and many remained as house wives, particularly those from poorer backgrounds.
- Hollywood women also subjected to discrimination and sexual abuse by film producers and directors.

Section H: Migrants and Native Americans

Immigrants

- America was seen by immigrants as a land of opportunity.
- The US government had an 'open door' policy so it made it easy for people to migrate
- By 1920 more than 40 million migrants had arrived in the USA
- By 1924 the US government began to introduce quotas to reduce the number of migrants
- Life was hard for migrants, many faced poverty, were employed in low income jobs and lived in slums
- Many migrants faced prejudice and discrimination
- Migrants were accused of political corruption and were seen as anarchists or communists

Native American/First Nation

- Many forced onto reservations, an area of land designated by the American government
- Many Native American people refer to themselves as First Nation people
- Meriam Report written in 1926 on living and working conditions on reservations it found;
- High unemployment
- Lack of investment in education leading to less opportunities
- Tribal culture and identity lost due to government policies and enforced Christian schooling
- Can not vote as not considered American Citizens
- Poverty, leading many to substance abuse.

RE	Christian Beliefs	Cycle 1	Year 9

Week	Key Knowledge to learn
1 – Christian beliefs: Nature of God	• Omnipotent – this means that God is all powerful. Nothing is impossible for God. • The creation story shows the power of God as does the story of Noah's flood in the Old Testament where God flooded the earth for 40 days. Some Christians see the stories as literal truth and others see them as metaphors • Omnibenevolent means all loving, so God is the source of all goodness and love in the world. • *"God so loved the world that He have His only son." John 3:16.* • *The Parable of the Prodigal Son* also shows the love of God. A spoiled son was welcomed home by his Father even though he doesn't deserve it. • Just means fair. God provides fair justice for all. • Christians believe that God does not discriminate. • *The 10 commandments* are rules given by God to Moses to ensure that people lived a good and fair life. • The *Parable of the Sheep and Goats* teaches that all people will be judged on how they have lived their life • These beliefs influence Christians by: -encouraging them to look after the world as stewards because their all powerful God has created it. -Praying for the sick because they believe a loving and powerful God might provide a cure. -Treating others as they want to be treated with love following the example of God.
2 – Christian Beliefs: The Trinity	• Christianity is monotheistic meaning that they only worship one God. • God's nature is explained through the mystery of the Trinity and its three persons. • The first person of the Trinity is God the Father who is the creator and sustainer of the Universe. • The second person of the Trinity is God the Son. He is the loving nature of God. The son was ever present but became man in the form of Jesus through the incarnation. • The third person is the Holy Spirit which is the presence of the God in the world. It gives them a source of strength in their lives. • During Jesus' baptism a voice from Heaven said, *"You are my beloved Son".* At the same time the Holy Spirit descended as a dove. All three persons of the Trinity were present at this time. • During baptism Christians are baptised *"in the name of the Father and of the Son and of the Holy Spirit."*
3 - Christian beliefs: Creation	• God created the universe in six days and rested on the seventh. • God took great care over creating the universe and all life on earth. • God created humans *"in his image"* to have dominion over the rest of his creatures. • The first humans were Adam and Eve according to the *Book of Genesis.* • God gave humans dominion over the earth. This means that they were in control of it. • Christian's should act as God's stewards. This means that they must care for and protect the earth. • Christians will care for the environment e.g. by giving to green charities or using low emission vehicles. • Christians will reflect on the beauty and wonder of nature as a reflection of God's almighty power. • Christians see humankind as a reflection of God so will care about every life and issues like human rights • Quote 1 Omnipotence: *'Great is our Lord and mighty in power.' (Psalm 147:5)* • Quote 2 "*God created the world from nothing in seven days."* (Genesis) • Quote 3 Benevolence: *'For God so loved the world that he gave his only Son, so that whoever believes in Him shall not die, but shall have eternal life.' (John 3:16)*

Week	Key Knowledge to learn
4 – Christian beliefs: Incarnation	• God became man in the form of Jesus. This is celebrated at the festival of Christmas. • Jesus was fully human AND fully God. *"He was begotten not made" Creed* • Jesus came to free humans from sin and death, this is called atonement. • Jesus came to show people how to live according to God's laws. • The incarnation shows that God loves humanity that he was prepared to become one of us and share our suffering. *"He came from heaven and by the Holy Spirit was made incarnate of the Virgin Mary." Creed* • The incarnation gives them hope that they can overcome temptation and sin and achieve salvation. • The incarnation means they will obey God's law/believe in Jesus/be active in the Church community, to gain eternal life opened up by Jesus' incarnation. • Quote 1 *"Jesus is inseparably true God and true man."* (Catechism of the Roman Catholic Church) • Quote 2 *"The Word became flesh and lived amongst us." (John 1:14)* • Quote 3 *'If anyone acknowledges that Jesus is Son of God, God lives in him and he in God." (1 John 4:15)*
5 – Jesus as Son of God	**Miracles** • A miracle is an extraordinary event that is not explainable by scientific law and is therefore attributed to God. • Christians believe that Jesus (God incarnate) performed many miracles in his lifetime. • Examples of Jesus' miracles recorded in the Bible include: 1. The Calming of the Storm 2. The healing of the Paralysed Man 3. The raising of Lazarus • For Christians, miracles are a sign that God exists because the miraculous event does not seem to be explainable by scientific law. • For Christians, miracles are a sign of what God is like e.g. all-powerful, caring, all loving and all-knowing. • They might give Christians reassurance that God will be there to help them when they need it. • It teaches Christians how they should act in difficult situations e.g. to help others that are ill. **Parables** • Jesus' teachings and parables can be found in the New Testament of the Bible in the gospels of Matthew, Mark, Luke and John. • A parable is a simple story used to tell a moral, spiritual or religious lesson. • Examples of Jesus parables are: 1. The Good Samaritan 2. The Rich Fool 3. The Sheep and the Goats.
6 - Christian Beliefs: Crucifixion	• Jesus died on a Friday. • Christians call this day Good Friday. • Crucifixion was a painful death. He was condemned to death by the Roman Governor Pontius Pilate. • One of Jesus own disciples called Judas betrayed him. • Jesus died asking God the Father to forgive his killers. • Christians believe that Jesus died to atone for the sins of humanity. Atone means to put right. • It was a painful death used for political prisoners as well as criminals. Jesus was crucified beside two common criminals. • Christians will be forgiving of others as Jesus forgave his persecutors/killers. • The crucifixion show's Jesus unconditional love for humankind as he was willing to suffer to save us from sin. • It encourages Christians to risk suffering to stand up for what they believe is right. • Quote 1 *"Truly I tell you today you will be with me in Paradise." Jesus to criminal crucified beside him. (Luke 23:42)* • Quote 2 *"Father forgive them, for they know not what they do." Jesus on the cross, speaking about his killers (Luke 23:34)*

RE	Christian Beliefs	Cycle 1	Year 9

Week	Key Knowledge to learn
7 – Christian beliefs: Resurrection	• Resurrection means rising from the dead. • Jesus rose from the dead three days after death on the cross. • Christians call this day Easter Sunday and it is one of the most important days of the Christian calendar. • Jesus was seen alive by many hundreds of witnesses according to the Bible. • The first to see the risen Jesus were the women who came to visit his tomb according to the Bible. Mary Magdalene was the first. (Mark 16) • Christians believe that Jesus then appeared to his disciples who he told must spread the word of God as he had commanded them too. *"Go into the world and spread the Good News." (Mark 16)* • One disciple called Thomas did not believe in the resurrection until he had seen him with his own eyes. • Two more disciples met the risen Jesus on the road to Emmaus. • The Resurrection proves to them that Jesus was God's son, so gives authority to his teaching and example. • Quote 1 *"See my hands and my feet, that it is I myself. Touch me, and see. For a spirit does not have flesh and bones as you see that I have." (Luke 24:39)*
8 – Christian Beliefs: Ascension	• Christians believe that after he rose from the dead Jesus later ascended (went up into) heaven. • Some believe that this was a physical ascent and others claim that it is symbolic to show that Jesus' time on earth was over. • It is significant because it marks the time when Jesus left earth in a physical way but the Holy Spirit was left behind to lead and guide Christians today. • Ascension Day celebrates Jesus' ascension to heaven after he was resurrected on Easter Day. • Quote 1: *"Then Jesus said to the apostles: 'Go forth to every part of the world, and proclaim the good news to the whole creation. Those who believe it and receive baptism will find salvation" Mark 16* • Quote 2:*"So after talking with them the Lord Jesus was taken up into heaven, and he took his seat at the right hand of God." Mark 16*
9 - Christian beliefs: Original Sin	• A sin is an action that goes against the teachings and will of God. • Christians believe that failure to believe in God is the biggest sin. • Christians believe that breaking God's law or Jesus teachings are sins. • Christians believe that all people are born and remain sinners. • Christians believe that sin separates humans from God. • Christians believe that the story of Adam and Eve tells them about Original Sin. • Original Sin is a Christian belief of that states that sin has existed since the fall of the first man. • In the book of Genesis, Adam and Even are said to have disobeyed God by eating from the Tree of Knowledge of Good and Evil. (Genesis 3) • This sin was the original sin which broke the relationship between God and humans. • God sent Adam and Eve from the Garden of Eden after their first sin and said that they would now die and return to dust.

Week	Key Knowledge to learn
10 – Atonement	• Jesus sacrificed himself to atone for our sins. • Jesus sacrificed himself by dying on the cross as a human. • Christians believe that Jesus paid the price for human sin and allowed the relationship between God and humanity to be healed. • Some Protestant Christians believe that humans atone for their sins through proclaiming a belief in Jesus as God and Saviour. • Roman Catholic Christians believe that atonement must come through active participation in the Sacraments. • Roman Catholics believe that there are seven sacraments. • The Church of England believes that there are two sacraments; Baptism and Eucharist. • Quote 1: *"My grace is all you need." Jesus (2 Corinthians 12)*
11 - Salvation	• Salvation is being saved from the consequences of our sin, ie death. • Salvation is given by God's grace because Jesus sacrificed himself for us by dying on the cross. • Salvation can be achieved through following God's law, relying on God's grace, or living according to the Holy Spirit within us. • Christians will pray for salvation and eternal life and show gratitude through worship / following God's law. • Christians know that we all have the spirit of God in us so have the ability to live as He wants and go to heaven. • Source 1: *Parable of the Prodigal Son.* • Source 2 "*For if you forgive other people when they sin against you, your heavenly Father will also forgive you." (Matthew 6:14)* • Source 3 *"For all have sinned and fall short of the glory of God." (Romans 3:23)* • Source 4 *"This is my blood of the covenant, which is poured out for many for the forgiveness of sins." (Matthew 26:28)*
12 - Judgement	• Everyone will be judged after death / resurrection. • Judgement Day decides if you go to heaven or hell. • Judgement is based on how you lived your life and followed Jesus' teachings/God's laws. • Christians believe that one of the natures of God is that he shows mercy and will therefore forgive. • Christians will try to follow Jesus' teachings and God's laws so that they go to heaven on Judgment Day. They believe that Jesus death atoned for their sins. *"Love God and Love your Neighbour" (Matthew 22)* • Christians will worship God to make sure he knows they love him and respect him and so will go to heaven. Only those that worship him and accept Jesus' salvation are assured a place in Heaven. • Christians know that God's grace and mercy will mean their sins can be forgiven and they can go to heaven. • *The Parable of the Sheep and Goats* (Matthew 25) explain that Christians will be judged based on their actions on earth. • *The Nicene Creed says that "Jesus will come again to judge the living and the dead."*
13 - Heaven & Hell	• Those who have achieved salvation will go to heaven for eternity. • Heaven is God's kingdom, reward for passing God's judgement – close to God. • Heaven is a place of peace and love, with no conflict or pain or suffering. • Heaven inspires Christians to follow God's law and repent of their sins. • Heaven gives them hope of justice in the afterlife for suffering in this life. Some believe Heaven is a physical place, others a spiritual state of being with God. • Hell is a place of suffering where unrepentant sinners go after judgement. Suffering is through being separated from God and physical torment e.g. burning. Hell is ruled by the devil and his angels. • Purgatory is the a Catholic belief. A place where souls go to wait before they can get to Heaven. • Hell Quote: *'A place of a fiery furnace, with weeping and gnashing of teeth" (Matthew 13:50).* • Heaven Quote *'My Kingdom is not of this world….' (John 18:36). "There are many places in my Fathers house and I have prepared a place for you." (John 14)*

Performing Arts - DRAMA	Essentials	CYCLE 1	Year 9

Box A – Drama Skills	Box B – Drama Techniques	Box C – Context
Body Language – Using your body to communicate your character. E.g an old man would have hunched body language. **Facial Expressions** – Using your face to communicate your characters emotions. **Voice** – altering the tone, pitch, and pace of your voice to fit your character. **Levels** – How high or low your character is to the ground. Can be used to communicate status, class or power. **Proxemics** – How close or far away you stand to other characters on stage based on your relationship. **Posture** – How you stand during your performance to represent your character **Gestures** – using body parts to communicate non-verbally. E.g waving, thumbs up, shaking head.	**Tableau –** Can also be called a freeze frame or still image. A moment of stillness in a performance, used to highlight key moments within a scene. **Thought Tracking** – Saying your characters thoughts out loud to the audience so they know what your character is thinking or feeling. **Forum Theatre** – a technique where the audience becomes the director. They can stop the performance at any time, give feedback, then rewind. Used during rehearsals to develop scenes. **Narration** – Reading part of the story aloud to the audience, either instead of acting it out or alongside mime. **Mime** – Using only your body to communicate, no talking. **Flash-forward** – A scene which is set further in the future. **Flashback** – A scene set in the past, sowing past events. **Cross Cutting** – Where two or more scenes happen on stage at the same time, switching between the two.	Social, Historical, Political and Cultural Contexts. • Have you thought about the different contexts for your devising piece? • These elements should build up your research section. • Social Context – A social setting or environment which people live. • Historical Context – A part of history which has happened (this could be when the play was set) • Political Context – The political party in power at the time and how this impacted on society. • Cultural Context – How culture can affect behaviour, choices and decisions for characters.

Box D – Evaluation Sentence Starters	Box E – Roles and Responsibilities in Performing Arts	Box F - Stagecraft
I have demonstrated multiple skills during my rehearsals. An example of this is when… During my performance, I was good at demonstrating drama skills such as…. This is important because… Within my work, I used a variety of drama techniques to improve my overall performance. For example, I used ….. This was effective because… One area I would like to improve on is … It is important to use this skill in performance because... I could improve on this skill by…	**Director -** The directors role is to bring to life the playwrights work. They are responsible for choosing the right cast, the right acting style and making sure the performance is well rehearsed. **Actor -** The actors role is to rehearse their lines before a rehearsal. They are responsible for performing as a certain role within the play, using the directors instructions. **Set Designer** - The set designer is responsible for creating a set which matches the location or time period the play is set in. They might need to make some set themselves or buy this. **Playwright** - playwrights role is to create and write the entire play. They are responsible for the entire story, setting, location and characters. **Costume Designer** – The costume designer will need to research the historical and social context of the play to make sure costumes reflect this. They will also need to measure the actors to ensure all costumes fit.	• Every performance should have a clear starting position and a clear end position (freeze frame). • You should NEVER have your back to the audience, we use the red cross rule. • You must pronounce and enunciate your words clearly, even if you are playing a shy character. • You should rehearse the exact lines you will say and exactly when you will say them. • We work collaboratively, this means there is no director in the scene. • No hands in pockets, even if it is part of your character, you must consider different ways of communicating this. • Every character is aiming for an equal amount of lines to say and time on stage, the group must work collaboratively to achieve this.

Performing Arts - MUSIC	Roles and Responsibilities	CYCLE 1	Year 9

Box A – Types of contract/employment	Box B – Job roles within the music industry	Box C – Common health and safety points
Fixed term contract – Work for a specific length of time **Permanent contract** – Work with no end date in sight **Temporary** – Similar to fixed term, often seasonal work **Self-employed/Freelance** – Working for yourself, need to invoice & organise taxes yourself **Volunteer** – Working for no money in exchange for experience	**Musician** – Plays music for themselves or other artists, either live or in the studio **Producer/songwriter** – Writes/helps record music for artist, often to a given brief **Musical Director** – Is in charge of all music played live by musician **Live sound technician** – Is the person in charge of all technical aspects of a live performance (anything you hear) **Roadie** – Helps to bring all equipment in and get set up for live performances **Instrumental support** – Guitar/drum technician who will ensure instruments are ready for live performances	• Tripping hazards • Fire exits • Security • Toilets • Spilled liquids • Disabled access • Smoking rules • Lighting • First aid • Overcrowding • Staging
Box D – Recording roles	**Box E – Service companies/organisations**	**Box F - Royalty collection agencies/ Departments within record companies**
Recording engineer – will 'capture' the sound, works with all equipment **Technical manager –** Oversees all equipment and ensures everything is fit for purpose **Producer –** Helps guide the artist to create their music **Session Musician –** Performs given music for an artist/producer **Mastering engineer –** Ensures the final mix is right for all sound systems	**Stylist** – Decides the artist's 'look' **Manager** – Organises everything for an artist **Hire company** – Can hire any equipment from this company **Transport company** – Will be paid to move equipment/musicians from one place to another	**PRS** – Collects royalties when an artist's music is performed live **MCPS** – Collects royalties when an artist's music is recreated mechanically (like a CD or DVD) **PPL** – Collects royalties when an artist's recording is played in a public space **Legal** – Protects the artist from legal issues **Artists & Repertoire (A&R)** – finds/develops an artist to become a product **Marketing** – Organises a marketing strategy to sell a product **Art** – Creates artwork and promotional material **Promotion** – Promotes artists to venues to ensure live performances are being held

BOX 1: Key Concepts

User Interface:
A user interface is the means by which a person is able to interact with a computer system.
Human-Device Interaction:
How the software features facilitate human-device interaction.
Text-Based Interface:
Simple text on a plain background. Commands typed in via keyboard.
Menu-Based Interface
Presents the user with a list of options. User navigates sub-menus by choosing relevant options.

BOX 2: User Interface

Software Features:
- Visual - windows, icons, menus & pointers
- Audio - speech recognition & synthesis

Human Features:
- Accessibility - high contrast schemes, text/icon resizing & text to speech
- Usability – adaptive interfaces, intuitive layouts & user experience

BOX 3: Human-Device Interaction
- **Intuitiveness** – prompts for input and clear output improves ease-of-use.
- **Error Reduction** – identifies what you can/can't do to prevent mistakes.
- **Productivity** – simpler interaction makes tasks quicker to perform.

BOX 4: Text-Based Interface

Uses:
- Technical users for performing tasks like network admin.

Pros:
- Requires little processing power.
- If you know the commands, quick to perform actions.

Cons:
- Not very intuitive as you need to know the commands.

BOX 5: Menu-Based Interface

Uses:
- Self-service kiosks, such as ATMs or self-service tills.

Pros:
- Easy to use due to simplicity.
- Easily adaptable to individual needs.

Cons:
- Can be very tedious to perform actions.
- Limited options – not all tasks are possible.

BOX 6: Key Concepts

Graphic User Interface
Uses Windows, Icons Menus & Pointers. User clicks on object with pointer to input commands.
Speech Language Interface
Users input commands verbally using a microphone. Output is often auditory too.
Sensor Based Interface
Sensors that read physical data (e.g. temperature) to perform commands.

BOX 10: Factors Affecting Choice of Interface

The right user interface depends on your individual needs. Different factors must be considered.
Performance - how quickly to perform tasks?
Ease of Use - how intuitive & simple to perform tasks?
User Requirements - Does it allow to perform our tasks?
User Experience - have the users used this interface before?
Accessibility - are there individual needs to consider?
Storage Space - Do we have the storage for the interface?

BOX 7: Graphic User Interface
Uses:
- Everyday devices like PCs, tablets & game consoles.

Pros:
- Intuitive navigation – easier for beginners.
- Simple drag & drop to move data around.

Cons:
- Can be very memory & processor intensive.
- Often slower to perform simple tasks than other interfaces.

BOX 8: Speech Language Interface
Uses:
- Smart home speakers for easy hands free input.
- When driving to interact with on-board computers.

Pros:
- Can be used easily by people with visual impairments.
- Can be used when hands are unavailable.

Cons:
- Background noise can interfere with use.
- Limited in complexity of tasks that can be performed.

BOX 9: Sensor Based Interface
Uses:
- Smart/IoT devices like smart thermostats.

Pros:
- Constantly monitoring for changes in environment.
- Automatically performs actions based on readings.

Cons:
- Can only be used for specific, limited functionality.
- Often quite expensive to install.

Enterprise	Component 1	CYCLE 1	YEAR 9

BOX 1: Learning Aim C: Investigate the factors that contribute to the success of an enterprise. (internal factors)

The impact of internal factors on costs: markets and customer satisfaction. Internal Factors – Factors inside the business which they can control.

Key Words: Internal, SME, Primary & Secondary Research, Qualitative and Quantitative Research

BOX 2

Internal Factor 1:
Understanding the market
It is important you know what the customer wants.
You know how much they will pay.

Internal Factor 2:
Customer Satisfaction
Customers will return.
Customers will tell others
Customers will consider buying other products/services you offer.

Internal Factor 3:
Effective Planning
Customer orders can be taken efficiently
Stock is available when needed.
Deliveries are made on time.
Bookings are placed correctly.

Internal Factor 4:
Effective Finance
You can buy raw materials
You can pay staff
You can pay for marketing and advertising.

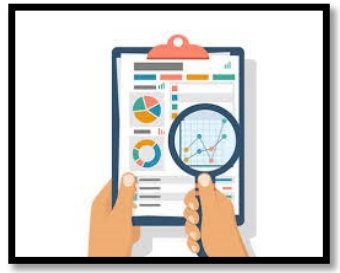
Internal Factor 5:
Unforeseen Human Resource Costs
You can cover the costs of staff who are ill.
Pay to advertise for new staff when others leave.
Cover maternity/paternity leave.

BOX 3

How can you understand the market?
Primary Research: Questionnaires, Surveys, Taste tests, Interviews and Focus Groups.
Secondary Research: Internet, Trade Magazines, Local Newspapers and Published accounts.

How can you ensure customer satisfaction?
Excellent Customer Service.
Good range of products and services
Keeping good stock levels
Quality products
USP (Unique Selling Point).

How can you plan effectively?
Having efficient booking systems
Checking stock regularly
Anticipating times when demand may be higher (eg Christmas).



How can you ensure your finances are effective?
Using retained profits from your sales.
Loans from a bank/building society.
Funds from investors.

How do you deal with unforseen human resource costs?
Have a contingency plan – plan for things that you hope will not happen.
Have a contingency fund – keep some money in reserve in case there is a problem.

Enterprise	Component 1	CYCLE 1	YEAR 9

BOX 4: Learning Aim C: Investigate the factors that contribute to the success of an enterprise. (external factors)
External Factors – Factors from outside the business which they cannot control.
Key Words: External, SME, Revenue, Legislation, Taxation & Success.

External Factors:

- **Changing Costs:** Cost of raw materials, Energy costs, Cost of borrowing or Cost of premises.
- **Changes in Taxation:** Income Tax rates can change, National insurance rates can change, VAT can change and Corporation Tax can change.
- **Changes in Revenue:** Competitors change prices – may lose customers, Consumer confidence is low – less likely to spend money on luxuries and Trends & fashions can change.
- **Changes in Legislation:** Some things which were previously allowed are – Not allowed and changes in how products can packed, labelled or advertised.
- **Changes in Government Relations:** BREXIT, Minimum wage rates and Data Protection regulation.

How can a business react to external factors?

Changing Costs
Increase prices to changing costs.
Find cheaper materials/premises
Look at different energy suppliers.

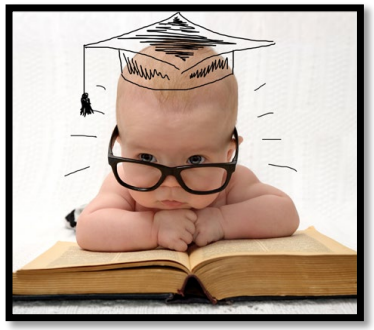
Changes in Taxation
Pay more taxes to the government.
Businesses have to pay National insurance for every employee.
If VAT increases, materials/goods get more expensive.

Changes in Revenue
Monitor competitor prices and match them.
Lower prices/change products.
Monitor current trends and fashions.

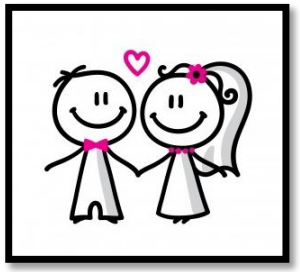
Changes in Legislation
Ensure that regulations are followed.
Failing to follow regulations = fine/prison
Change labelling/advertising.

Changes in Government Relations
Brexit – supplies, suppliers, staff, laws and import/export affected.
Pay staff more, either raise prices or make less profit.
Falling to follow regulations -= fine/prison.

Health & Social Care	Component 1 Human Lifespan Development	CYCLE 1	YEAR 9

BOX 1: Learning Aim A: A1 - Understand human growth and development across life stages and the factors that affect it.	How do people grow and develop throughout their lives? How can factors such as lifestyle choices, relationships affect this? Understanding these processes is essential knowledge and understanding for health and social care practitioners.   A1 Growth and development across life stages Life Stages Infancy (0 – 2 years) Early childhood (3 – 8 years) Adolescence (9 – 18 years) Early adulthood (19 – 45 years) Middle adulthood (46 – 65 years) Later adulthood (65+ years) Holistic Development Physical development – Physical growth and physiological change Intellectual development – Developing thinking and language skill and common activities that promote learning and development Emotional development – Developing feelings about self and other Social development – Forming relationships.
BOX 2 : A2 - Factors affecting growth and development.	1. Physical factors Genetic inheritance Diet and lifestyle choices Experience of illness and disease Appearance  2. Economic factors Income/ wealth Material possessions 3. Social, Cultural and emotional factors Educational experiences Culture, e.g. community involvement, religion, gender Influence of role models Influence of social isolation Personal relationship with friends and family

Health & Social Care	Component 1 Human Lifespan Development	CYCLE 1	YEAR 9

BOX 3: B1 - Different types of life event.	<u>1. Physical events</u> *(make changes to your body, physical health or mobility).* Accident/ injury Ill health <u>2. Relationship changes</u> *(impacts on day to day life and the choices you make)* Entering a relationship Marriage Divorce Parenthood Bereavement <u>3. Life circumstances</u> *(impacts on day to day life and the choices you make).* Moving house, school or job Exclusion from education Redundancy Imprisonment Retirement   
BOX 4: B2 - Coping with change caused by life events.	<u>How individuals adapt to these changes</u> <u>Sources of support</u> Family, friends partners Professional carers and services Community groups, voluntary and faith based organisations <u>Types of support</u> Emotional, information advice, practical help & voluntary support. 

Sport Science	R180 –Reducing the risk of injury	CYCLE 2	Year

Box A	**Extrinsic and intrinsic factors which influence the risk of injury**		
	Extrinsic factors that can increase the chance of injury are factors that you cannot control. These are outside of a player's control.	Examples of extrinsic factors are: environment; equipment; coaching/instructing/leading; types of sports.	Coaching can cause injury by a player being taught the incorrect technique, for example, being taught a bad tackle technique at rugby.
	Protective Equipment can help reduce injury by players having the correct protective equipment for example shin pads, gum shields and helmets if required. Lack of these can contribute to injuries	Intrinsic factors are things that a player can control and these can then reduce the chance of injury to the player.	Examples of intrinsic factors are: wearing protective equipment, warming up correctly and wearing the correct clothing/ footwear.
	Individual variables are what makes a person unique and impact the sport they can participate or make the susceptible to injuries.	Examples of individual variables are: Gender; age; ;experience; weight; fitness levels; techniques/abilities; nutrition/hydration; medical condition; sleep; previous injuries.	If a participant has an injury, such as shin splints. Competing before it has healed will cause more damage and poor technique/performance. It will cause lasting damage too.
Box B	**Psychological factors which increase the risk of injury**		
	There are four psychological factors that impact on an athletes performance: Motivation, Aggression (Direct and Channelled, Arousal and Anxiety.	Arousal is a player's level of excitement and readiness to perform.	There are three mental strategies that can support a performer: Mental Rehearsal; imagery; selective attention.
	Direct aggression is any form of behaviour that directed towards the goal of harming another player or person such as a two footed tackle in football.	Channelled aggression such as a boxer can assist with a successful outcome for a boxer. It can also be channelled to support a performance to win.	Reasons for aggression can be: Level of performance; retaliation; pressures to win; officials decisions; performance enhancing drugs.
	Over arousal is when a player feels over 'psyched' up for a game. This can be harmful to a player's performance and technique at performing skills in a game.	Under arousal is the opposite where a player feels 'sluggish' or 'lazy' – this can lead to a player not fully preparing and this can lead to injury.	Anxiety is the feeling of being nervous or worrying about a performance. This can lead to poor performance or injury as a player is not fully focussed.
Box C	**Warm up and Cool Down**		
	Warming up and cooling down routines can help prevent injuries to players.	Four phases of a warm up are: pulse raiser, mobility, dynamic movement, and skill rehearsal. This is the same regardless of the sport you are playing.	Pulse raiser: exercises that slowly increase the heart rate and body temperature of a player. Examples of a pulse raiser are: jogging, skipping cycling.
	Mobility: exercises that take the joint through the full range of movement. Examples of dynamic movements are arm swings and hip circles.	Dynamic movements: this is changing of speed and direction. For example, sprinting towards a cone and changing direction then sprinting to another. Dynamic examples – walking lunges, high knees.	The use of suitable components and examples, in the design of the warm up routines and exercises/stretches that target different muscles/joints in the body.
	Skill rehearsal: This is rehearsing common skills and movements that will be used in a game situation or the activity. For example passing in football, dribbling in basketball or shooting in netball.	Physical benefits of a warm up include: increased body temperature, increased blood flow, increased flexibility of muscle, increase in pliability of ligaments, s and increased range of movement in joints.	Psychological benefits of a warm up include: heightens arousal, settles nerves, improves concentration, increases confidence and gets players in the 'zone' through mental strategies.

Sport Science	R180 –Reducing the risk of injury	CYCLE 2	Year

<table>
<tr><td>Box A</td><td colspan="6">Warm up and Cool Down</td></tr>
<tr><td></td><td colspan="2">There are two phases of a cool down. These are the same regardless of what sport you are playing. These phases are: Pulse lowering and stretching</td><td colspan="2">Pulse lowering: exercises that gradually lower a player's pulse and reduce the body temperature. For example light jogging and reducing the speed to a walk.</td><td colspan="2">Stretching: in a cool down a player should only do static stretches and this helps reduce muscles stiffness.</td></tr>
<tr><td></td><td colspan="2">There are many things that need to be considered when planning a warm up or cool down: gender, medical conditions, size of group, disability, age, experience and individual fitness levels.</td><td colspan="2">Disability: whether you have people with disabilities in the group. If you have what are they? How can they be catered for?</td><td colspan="2">Size of group: the size of the group important to know. Is the space too big or small? Do you have enough equipment?</td></tr>
<tr><td></td><td colspan="2">Experience of participants: are the participants beginners? Professionals? – Activities must be challenging and appropriate.</td><td colspan="2">Medical conditions: do any of the participants have medical conditions? If so do they have the adequate medication with them for example an inhaler for asthma.</td><td colspan="2">Common medical conditions include Asthma, Epilepsy and Diabetes.</td></tr>
<tr><td>Box B</td><td colspan="6">Types, causes and treatments of common sports injuries</td></tr>
<tr><td></td><td colspan="3">Acute injuries are injuries that happen because of an immediate impact and cause immediate pain. For example, a fracture, a strain or sprain.</td><td colspan="3">Chronic injuries are injuries that happen over a long period of time that causes pain. They are also known as overuse injuries.</td></tr>
<tr><td></td><td>A sprain is when a ligament has been stretched twisted or torn. Symptoms of a sprain are; swelling, pain and bruising. Treat with R.I.C.E.</td><td>A strain is when muscles have been torn or stretched. Symptoms of a strain are; swelling, pain, loss of movement and bruising. Treat with R.I.C.E.</td><td>Concussion is a sudden trauma to the head that causes a short loss of mental functions. It can also cause unconsciousness.</td><td rowspan="2">Examples of chronic injuries are shin splints, golfers elbow and tennis elbow.</td><td rowspan="2" colspan="2">Treatments for chronic injuries include rest, ice and R.I.C.E.</td></tr>
<tr><td></td><td>Open, closed and stress are different types of fractures.</td><td>Contusions (bruises) and blisters are examples of acute injuries.</td><td>A treatment for a soft tissue injury is R.I.C.E.
Rest, Ice, Compression, Elevation</td></tr>
</table>

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5
1. believe	1. beneath	1. buried	1. business	1. caught
2. disappear	2. disappoint	2. embarrass	2. energy	2. engagement
3. interesting	3. interrupt	3. issue	3. jealous	3. knowledge
4. sieve	4. design	4. simmering	4. dairy	4. vitamins
5. bibliography	5. series	5. book	5. system	5. catalogue
6. commemorate	6. commission	6. committee	6. compatible	6. comparative
7. feasible	7. February	7. foreign	7. humorous	7. irreparable
8. output	8. cursor	8. password	8. delete	8. preview
9. tourist	9. globalisation	9. tourism	9. habitat	9. transport
10. vertical	10. amount	10. minus	10. volume	10. approximately
WEEK 6	**WEEK 7**	**WEEK 8**	**WEEK 9**	**WEEK 10**
1. chocolate	1. climb	1. column	1. concentration	1. material
2. enquire	2. environment	2. evaluation	2. evidence	2. potential
3. listening	3. lonely	3. lovely	3. marriage	3. sincerely
4. diet	4. water	4. evaluation	4. weight	4. fats
5. thesaurus	5. chapter	5. classification	5. content	5. copyright
6. connoisseur	6. corroborate	6. courteous	6. accommodate	6. assassin
7. livelihood	7. maintenance	7. strategy	7. stratagem	7. truly
8. digital	8. processor	8. program	8. documents	8. programming
9. human	9. transportation	9. igneous	9. tsunami	9. industry
10. multiply	10. weight	10. average	10. multiplication	10. axis
WEEK 11	**WEEK 12**	**WEEK 13**		
1. honorary	1. humorous	1. hypocrisy		
2. illiterate	2. immigrant	2. incidentally		
3. indispensable	3. irrelevant	3. irreparable		
4. weighing	4. fermentation	4. whisking		
5. dedication	5. dictionary	5. editor		
6. acknowledge	6. accidental	6. knowledge		
7. twelfth	7. withhold	7. valuable		
8. graphic	8. scanner	8. hardware		
9. urban	9. infrastructure	9. volcano		
10. axes	10. negative	10. calculate		

CYCLE 1
SPELLINGS
YEAR 9

DIXONS COTTINGLEY ACADEMY

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5
1.	1.	1.	1.	1.
2.	2.	2.	2.	2.
3.	3.	3.	3.	3.
4.	4.	4.	4.	4.
5.	5.	5.	5.	5.
6.	6.	6.	6.	6.
7.	7.	7.	7.	7.
8.	8.	8.	8.	8.
9.	9.	9.	9.	9.
10.	10.	10.	10.	10.
WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
1.	1.	1.	1.	1.
2.	2.	2.	2.	2.
3.	3.	3.	3.	3.
4.	4.	4.	4.	4.
5.	5.	5.	5.	5.
6.	6.	6.	6.	6.
7.	7.	7.	7.	7.
8.	8.	8.	8.	8.
9.	9.	9.	9.	9.
10.	10.	10.	10.	10.
WEEK 11	WEEK 12	WEEK 13		
1.	1.	1.		
2.	2.	2.		
3.	3.	3.		
4.	4.	4.		
5.	5.	5.		
6.	6.	6.		
7.	7.	7.		
8.	8.	8.		
9.	9.	9.		
10.	10.	10.		

CYCLE 1
SPELLING TESTS
YEAR 9

DIXONS COTTINGLEY ACADEMY