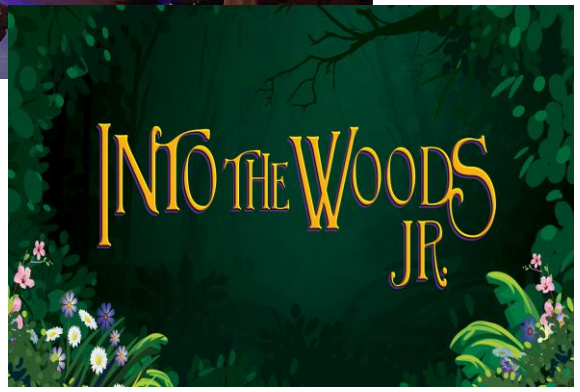
Knowledge Organiser

Year 9 Spring 2 2026

BELPER SCHOOL and Sixth Form Centre

Create Your Future



‘The best thing about Belper School is the experiences we share together, and the things we achieve’

Name:
Tutor Group:

BELPER SCHOOL and Sixth Form Centre

Contents Page

Science, PE and Technology are on a rotation so have multiple pages in this booklet. Your teacher will direct you to the appropriate pages when setting work.

Timetable

Week 1	1	2	3	Lunch extra-curricular club	4	5	After school extra-curricular club
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							

Week 2	1	2	3	Lunch extra-curricular club	4	5	After school extra-curricular club
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							

In Class Expectations

Out of Class Expectations

Attendance and Punctuality

Being in school and being on time is crucial for success and preparing for the future.
Lost learning can lead to additional anxiety and pressure to catch up work and risks the student falling even further behind.

Attendance

- 90% attendance is half a day missed every week
- 90% attendance in one school year is 4 whole weeks of lessons (100 lessons) missed in that year.
- 90% attendance over 5 years of secondary school is half a year of school missed.
- Evidence suggests that, on average, every 17 days of school missed by a student equates to a drop of 1 GCSE grade.

Punctuality

- 10 minutes late each day = 50 minutes of lessons missed each week
- 10 minutes late each day = 2000 minutes (33.3 hours, 5.5 days) every academic year
- 10000 minutes (166.5 hours, 27.5 days) of missed learning from year 7 to year 11.

"Everyday you show up, you're investing in your future self. Don't underestimate the power of attendance."

Attendance this half term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8

Guided Reading Tracker

BELPER SCHOOL and Sixth Form Centre

Date	Title and author	Summary of reading (+interesting or new vocabulary learned)	Signed:	

As part of your library lessons, you are expected to complete **at least 20 minutes** of reading once a fortnight.

To track your reading, you need to complete a row of the table before each library lesson to show details of the book you have read.

Your table also needs to be signed by someone who has witnessed you reading. This will most likely be a parent/guardian but it can alternatively be signed by your tutor, classroom teacher, buddy reader, TA or Sarah in the library.

Year 9 Spring 2

English: Animal Farm by George Orwell

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Dystopian Fiction	An imagined world or society in which people lead wretched, dehumanised, fearful lives
Propaganda	Information, especially of a biased or misleading nature, used to promote a political cause or point of view
Oppression	Prolonged cruel or unjust treatment by an authority
Corruption	Dishonest or fraudulent conduct by those in power
Totalitarianism	A system of government that is dictatorial and requires complete subservience from its people
Dictatorship	A government which has one leader who is very authoritative and is usually obtained by force
Manifesto	A written statement declaring publicly the intentions, motives, or views of its issuer
Tier 2 vocabulary	**Definition**
Infer	To work something out based on evidence from the text.
Reiterates	Reinforcing an idea within a text.
Connotation	What a word or phrase makes you think of.
Satire	The use of humour, irony, exaggeration or ridicule to expose and criticise people's stupidity or vices
Allegory	A story that can be interpreted to reveal a hidden meaning, typically a moral or political one

Section 2: Persuasive writing techniques – speeches

DIRECT ADDRESS:
When the text addresses the reader directly.
"That is my message to you, comrades: Rebellion!"

RHETORICAL QUESTIONS:
A question asked in order to create a dramatic effect or to make a point rather than to get an answer.
"Is it not crystal clear, then, comrades, that all the evils of this life of ours spring from the tyranny of human beings?"

HYPERBOLE:
Exaggerated language used for effect.
"The life of an animal is misery and slavery"

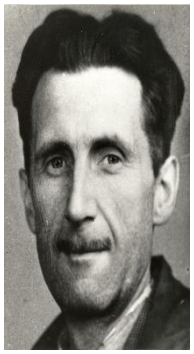
EMOTIVE LANGUAGE:
Vocabulary to make the audience/reader feel a particular emotion.
"We are born, we are given just so much food as will keep the breath in our bodies, and those of us who are capable of it are forced to work to the last atom of our strength; and the very instant that our usefulness has come to an end we are slaughtered with hideous cruelty."

IMPERATIVE COMMAND:
Instructional language.
"And above all, pass on this message of mine to those who come after you, so that future generations shall carry on the struggle until it is victorious. "

REPETITION
The use of a word or phrase numerous times.
"No animal in England knows the meaning of happiness or leisure after he is a year old. No animal in England is free."

TRIPLETS/TRICOLON
Three points to support an argument.
"The soil of England is fertile, its climate is good, it is capable of affording food in abundance to an enormously greater number of animals than now inhabit it."

Section 3: Context and further reading



CONTEXT: THE AUTHOR

Orwell was a socialist. A socialist believes that all people in any society are of equal worth and value because we are all human beings. Everyone should be given equal opportunity and society have a duty and responsibility to make sure that all its members have reasonable standards of care and help.

CONTEXT: THE NOVEL

- Animal Farm was published in 1945.
- The majority of the characters and events in Animal Farm are linked to what happened before, during, and after the Russian Revolutions.
- As a communist turned socialist, and as a journalist too, Orwell wanted to attack and highlight the history, rhetoric and excesses of Soviet Communism whose leaders abused their power using this political ideal.
- The Russian Revolution took place in 1917, during the final phase of World War I. It removed Russia from the war and brought about the transformation of the Russian Empire into the Union of Soviet Socialist Republics (USSR), replacing Russia's traditional monarchy with the world's first ever Communist state.

KEY THEMES IN THE NOVEL

Leadership, Control, Lies and Propaganda, Violence, Pride and Belonging, Dreams and Hopes

IF YOU ENJOYED ANIMAL FARM THEN READ THESE NEXT:

1984 – *George Orwell*
Fahrenheit 451- *Ray Bradbury*
Lord of the Flies – *William Golding*
Never Let Me Go – *Kazuo Ishiguro*

English: Romeo and Juliet by William Shakespeare

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Patriarchy	A system of society or government in which men hold the power and women are largely excluded from it
Symbolism	The idea that words, phrases and images can represent other things
Authority	The power or right to give orders, make decisions, and enforce obedience
Maternal	Having the stereotypical characteristics of a mother
Determinism	The theory that everything in life is pre-decided and pre-planned.
Unrequited Love	Unrequited love or one-sided love is love that is not openly reciprocated or understood as such by the beloved
Elizabethan Era	The time in the Tudor period of the history of England during the reign of Queen Elizabeth I

Tier 2 vocabulary	Definition
Foreshadowing	To hint at something that will happen later in the play
Stage Directions	An instruction in the text of a play indicating the movement, position, or tone of an actor
Sonnet	A poem of 14 lines, in English typically having ten syllables per line
Prologue	An opening speech that introduces key themes within the play
Soliloquy	A speech delivered by a character that the other characters do not hear

Section 2: Key Skills/Strategies

Use the CPEAT format to write analytically about Shakespeare's play.

C	**CONNECTIVE**	Firstly, moreover, furthermore, in conclusion.
P	**POINT**	Use the wording of the question and identify what your paragraph will explore.
E	**EVIDENCE**	Find a relevant quotation and identify a language or structural device in it…
A	**ANALYSIS**	... and then explore the deeper meaning of this quote/technique and how it links to the question.
T	**THINK INTENTION AND IMPACT**	Explore the intentions of the author and the effect/impact of this on the reader.

FEATURES OF A TRAGEDY

Tragedy: A play dealing with tragic events and having an unhappy ending, especially one concerning the downfall of the main character/s.

The Tragic Hero:
The tragic hero describes a virtuous character who must face adversity, either caused by their flawed persona or sealed by fate. Ultimately, they pay the price with their lives, but after recognising their mistake.

The Fatal Flaw: *Hamartia*
The tragic hero's flaw, that leaves them vulnerable and causes their disastrous end.

Tragic Waste:
Often the inevitable deaths of pivotal characters in the play.

Catharsis:
The audience's immersion in the play leads to an emotional roller coaster, with mixed feelings for the hero and their antagonists. The ending of the play leads to a release of often very conflicting emotions for the audience.

Section 3: Context and Themes

VERONA
R&J is set in Verona, Italy in the fourteenth century. Verona was a rich, lively, cultured city but it had been affected by violence for centuries. Political and religious leaders clashed over power, wealth and status and often the citizens had to take sides.

WOMEN & GENDER ROLES
Society was patriarchal: men were dominant and women were seen as inferior and expected to marry as young as twelve years old. Noblewomen like Juliet would have received some education but there was little freedom of choice in life for most women.

QUEEN ELIZABETH I
The Queen while Shakespeare was writing. Elizabeth I made Protestantism the official religion of England, which angered many Catholics, and led to much conflict. Shakespeare may be referencing this in 'Romeo and Juliet', with the two warring families.

NURSES
Nurses were employed by wealthy families to feed and care for their children.

FATE
The belief that your life is mapped out for you, or 'written in the stars'. Many Elizabethans believed God decided your fate, and that astrology could help you identify your course in life.

KEY THEMES IN THE PLAY
Conflict, Power, Fate, Loyalty, Family, Religion, Love, Hatred, Violence, Death

English: Stone Cold by Robert Swindells

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Prejudice	A liking or a dislike for someone or something, usually without good reason
Injustice	A lack of fairness
Exploitation	The action of treating someone unfairly in order to benefit from them
Vulnerability	Being exposed to the possibility of being attacked or harmed, either physically or emotionally
Thriller	Thriller is a genre of fiction which is characterised by giving readers heightened feelings of suspense, excitement, surprise, anticipation and anxiety.
Morality	The belief that some behaviour is right and acceptable and that other behaviour is wrong.
Trauma	A deeply distressing or disturbing experience

Tier 2 vocabulary	Definition
Dual Narrative	A story that is told from two different perspectives.
Colloquialisms	Colloquial language is casual, informal and conversational.
Morality Tale	A story or narrative from which one can derive a moral/lesson about right and wrong.
Protagonist	The leading character In a novel.
Antagonist	The opponent of the protagonist in a novel.

Section 2: CPEAT

Use the CPEAT format to write analytically about Shakespeare's play.

C	**CONNECTIVE**	Firstly, moreover, furthermore, in conclusion.
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Section 2: Features of Thriller Novels

Suspense, Surprise and Anxiety

The two seemingly distinct narratives in Stone Cold draw closer together, making the reader feel anxiety for poor Link!

Climax

Thrillers generally build towards a key moment, in which all of the suspense built over the narrative are released in one scene. This is the case when Shelter attempts to murder Link.

Plot Twists and Cliff-hangers

A plot twist is when the narrative changes from what the reader would (e.g. Ginger's murder). Cliff-hangers are also used to keep the reader interested.

Section 3: Context and Themes

ROBERT SWINDELLS

Robert Swindells is an English writer who was born in Bradford on March 20th 1939. He served in the Royal Air Force, before becoming a primary school teacher. It was at this time that he began writing novels, which he later took up full time. Swindells has stated that he feels 'constantly aware of the presence of injustice in the world', and that he tries to 'point out various manifestations of injustice... which exist in our society.' He draws upon these ideas in Stone Cold.

HOMELESSNESS

The latest data shows that on any given night, there were an average of 2440 people sleeping rough in the UK. Remember this is on any given night, so the number who slept rough over the course of a year is likely to be many times more. A study by the Evening Standard showed that more than 7,500 people slept rough in London at some point in 2015. This included 880 under 25s.

THE ARMED FORCES

The British Armed Forces are the military services responsible for the defence of the United Kingdom. They include the British Army, the Royal Navy, the Royal Marines, and the Royal Air Force. Service members can be discharged from service for a variety of reasons. A dishonourable discharge (DD – language more often used in the US military) is handed down for an offence that the military considers to be exceptionally poor conduct. Some members are also discharged on physical/ mental health grounds.

KEY THEMES IN THE NOVEL

Threat – Homelessness – Injustice – Hopelessness - Exploitation, Vulnerability-Prejudice

IF YOU ENJOYED STONE COLD THEN READ THESE NEXT:

The Silence of Bones – *June Hur*
One of Us is Lying – *Karen M.McManus*
The Magpie Society – *Zoe Sugg & Amy McCulloch*
A Good Girl's Guide to Murder – *Holly Jackson*

Maths: Probability

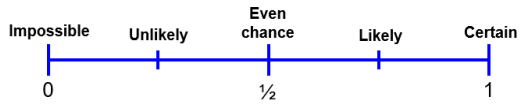
Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Sample Space	The collection of all possible outcomes
Conditional Probability	The probability of something happening based on the occurrence of another event
Dependent events	Those which depend on what happened in a previous event
Independent events	Those which do not depend on an event which has happened before
Mutually Exclusive Events	Events which cannot happen at the same time for example getting a Head and a Tail at the same time

Tier 2 vocabulary	Definition
Probability	The chance of something happening
Fair	Outcomes have an equal chance of happening
Combined events	Two or more events that are considered to happen together either at the same time or in succession
Desired outcome	The result that is wanted
Listing	Writing down all the options/information.

Section 2: Representations and procedures

The probability scale:



Probability of a single event:

$$\text{Probability} = \frac{\text{Number of desired outcomes}}{\text{Number of possible outcomes}}$$

the probability of rolling an even number on a fair dice

Desired outcomes are even numbers 2,4 and 6 (**three** of them)

Possible outcomes are the numbers 1 to 6 (**six** of them)

so Probability $= \frac{3}{6}$, which simplifies to $\frac{1}{2}$

Listing strategies

Systematic listing strategies are ways of writing outcomes from an event in an organised way with none of the possibilities missed out or repeated.

To do this we need to use a method which makes listing items easier. A good method to use is to fix certain values, making only small changes between each item in the list.

A meal deal consists of a drink and a bag of crisps.

The drinks available are orange juice or apple juice. Drinks – O and A

The crisp flavours are bacon, cheese or plain. Crisps – B, C and P

Start by fixing the choice of drink to O and then change the crisp flavour.

Now change the drink flavour and repeat the crisp flavours in the same order as before.

O, B	A, B
O, C	A, C
O, P	A, P

This gives us 6 combinations in total.

Probability of two or more events:

To determine the probability of two independent events, we have to **multiply** the probability of the first event by the probability of the second event.

$$P(A \text{ and } B) = P(A) \times P(B)$$

Sample space diagrams

Sample space diagrams are useful for listing all possible outcomes of two events.

This sample space diagram shows the possible outcomes when 2 dice are rolled and are added together.

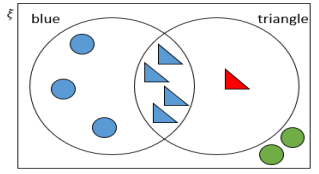
Space Diagram

2nd Die \ 1st Die	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24
5	5	10	15	20	25	30
6	6	12	18	24	30	36

$P(4) = \frac{3}{36}$ ← There are 36 possible outcomes, three of the outcomes are 4

Venn diagrams

Ven diagrams help us to organise information that overlaps.



A shape is selected at random.

What is the probability that the shape is blue?

$P(\text{blue}) = \frac{7}{10}$ ← There are 10 shapes, 7 of them are blue.

Probability of blue

Maths: Non-Linear Relationships

BELPER SCHOOL and Sixth Form Centre

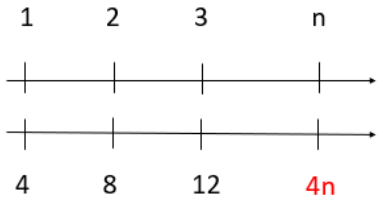
Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Arithmetic sequence	A sequence of numbers where the gap between one term and the next is constant
Geometric sequence	A sequence of numbers where each term is found by multiplying the previous term by a number called the common ratio.
Triangular number	A sequence of numbers that are represented through a series of dots formed into equilateral triangles
Multiplicative relationship	A relationship between two quantities whereby the values are linked by a multiplier, e.g. n → 5n
Additive relationship	A relationship between two quantities whereby the values are related by the addition of a number, e.g. 2n → 2n + 3

Tier 2 vocabulary	Definition
Sequence	A particular order in which related objects follow each other
Term	An individual number in a sequence, such as "6 is the 2nd term in the sequence 1,6,11,16"
Square number	The product of a number multiplied by itself
Cube number	The product of a number multiplied by itself three times
Natural numbers	The counting numbers, that is, the positive integers 1,2,3…

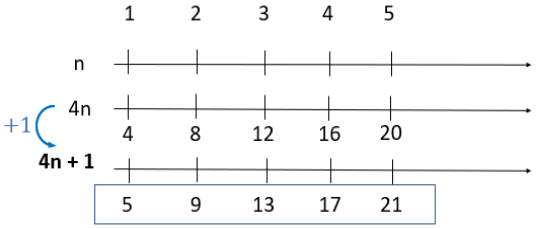
Section 2: Representations

When we use the natural numbers for the upper number line, the multiplicative relationship shown by the double number line also shows a sequence.



The n^{th} term rule '4n' takes any number 'n' and gives a term '4n'. This generates the sequence 4,8,12,… which we recognise as the 4 times table.

We can move from the 4 times table by adding or subtracting, to generate a different sequence that also moves by 4 each time:

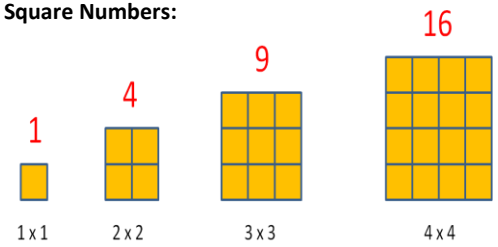


From the rule '4n + 1' we can find any term in the sequence.

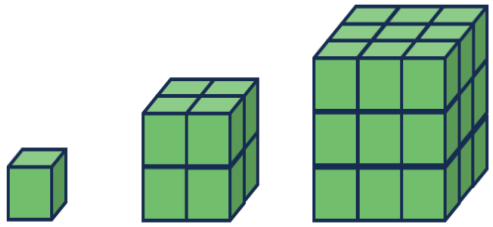
e.g. for the 20th term, substitute n=20
4 x 20 + 1 = 81
The 20th term in the sequence 5,9,13,17… is 81

Section 3

Square Numbers:



Cube Numbers:

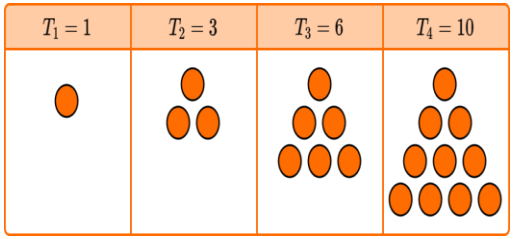


1 cubed
1 x 1 x 1 = 1

2 cubed
2 x 2 x 2 = 8

3 cubed
3 x 3 x 3 = 27

Triangular Numbers:



Fibonacci sequence:
The next term is found by adding the previous two terms.

$$1, 1, 2, 3, 5, 8, 13, 21, \ldots$$

Science: P3 Physics Topic 2. Motion & Forces (Newton's Laws)

Section 1:	Key Vocabulary
Tier 3 vocabulary	**Definition**
Centripetal force	A force that causes objects to follow a circular path. The force acts towards the centre of the circle.
Inertial mass	The mass of an object found from the ratio of force divided by acceleration.
Action–reaction forces	Pairs of forces on interacting objects. Action–reaction forces are always the same size, in opposite directions, and acting on different objects. They are not the same as balanced forces.
Equilibrium	When a situation is not changing because all the things affecting it balance out.
Mass	A measure of the amount of material that there is in an object. Mass is a scalar quantity.
Weight	The force pulling an object downwards, it depends upon the mass of the object and the gravitational field strength.
Gravitational field strength	A measure of how strong the force of gravity is somewhere. It is the force on a 1 kilogram mass, so the units are newtons per kilogram (N/kg).
Free body diagram	A diagram with one simple object shown (circle or box) and all the objects acting on that object
Resultant force	One force (value and direction) that represents all the forces on an object.
Balanced forces	The resultant force equals zero.

Tier 2 vocabulary	Definition
Velocity	The speed of an object in a particular direction.
Acceleration	A measure of how quickly the velocity of something is changing.

Section 2: New Knowledge/Skills

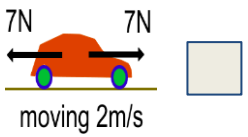
Newton's laws of motion

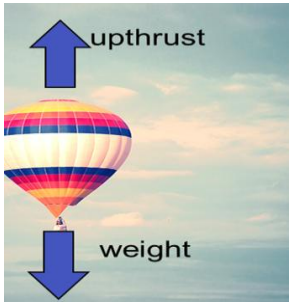
1st Law

If the resultant force on an object is zero (balanced forces), then it will;

- Be stationary
- Or moving at a constant velocity

What is the missing force of Thrust the car is producing?



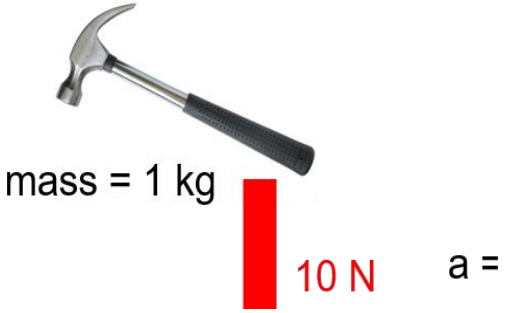


2nd Law

The amount an object accelerates is affected by the size of the force acting on and the object's mass.

These are shown in the equation;

Force = mass x acceleration



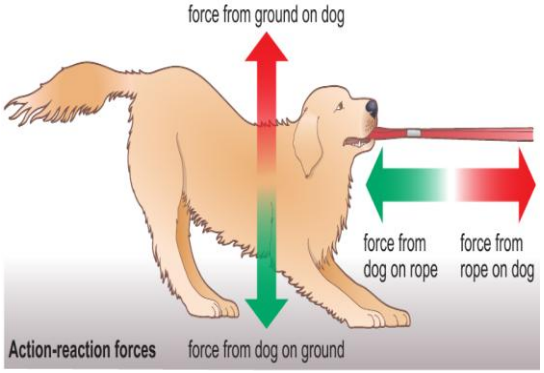
Section 3: Other subject specific things

3rd Law

Forces come in pairs. The action force and reaction force.

These are;

- Equal in size
- Opposite in direction
- Of the same type



Mass and weight

The mass of an object is a measure of how much matter it has. The units are kg.

Weight is a measure of the pull of gravity on an object and depends on;

- The mass of the object
- The strength of gravity

Weight = mass x gravitational field strength

If your mass is say 50kg and you were to travel to the Moon you would still have the same mass but your weight would be less because there is a lower gravitational field strength there.

Year 9 Spring 2

Chemistry – Ionic Bonding

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Ionic bond	Electrostatic forces between opposite charged ions.
Electrostatic forces	Forces attracting ions which have opposite charges.
Cation	Positive charged ions – formed when metals **lose** electrons.
Anion	Negative charged ions – formed when non-metals **gain** electrons.
Ionic compounds	Formed from positive and negative ions held together by ionic bonds.
Dot and cross diagram	A diagram which uses symbols (dots and crosses) to show the arrangement of electrons.
Ionic lattice	The alternating arrangement of positive and negative ions in an ionic solid.

Tier 2 vocabulary	Definition
Bonds	Forces of attraction that hold atoms together.
Ions	Charged particles formed when atoms gain or lose electrons.
Property	The way a substance behaves e.g. it conducts electricity.
Aqueous	A substance dissolved in water.
Molten	When a substance has been melted

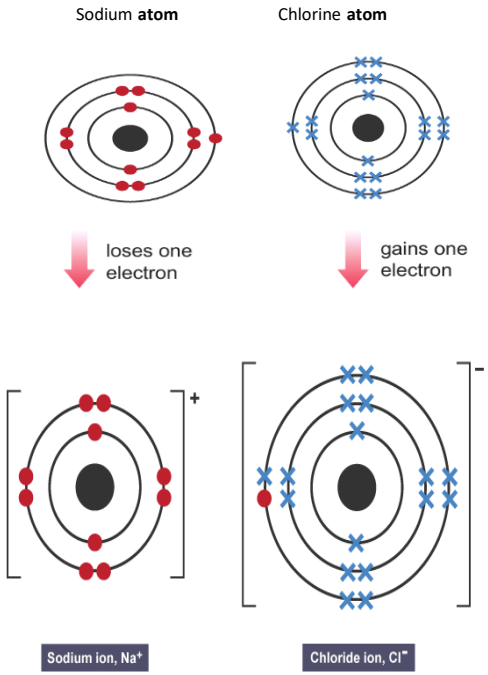
Section 2: Ionic bonding

Ionic compounds always **contain a metal and a non-metal.**

Forming ions

When metals react they **lose** electrons forming **positive** ions called **cations**.

When non-metals react they **gain** electrons forming **negative** ions called **anions**.



Metal ions are positive because they have lost electrons and contain more positive protons then negative electrons.

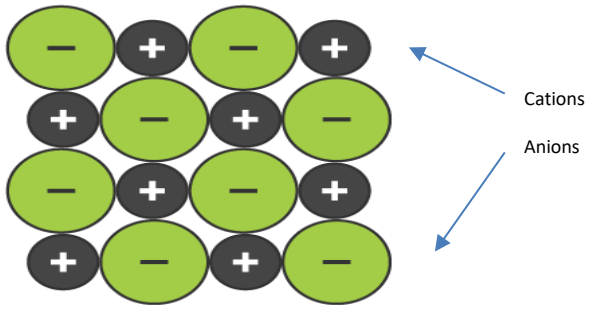
Non-metal ions are negative because they have gained electrons and contain more negative electrons than positive protons

Section 3: Ionic compounds

Common ions

Positive ion	Ion formula	Negative ion	Ion formula
sodium	Na^+	fluoride	F^-
lithium	Li^+	chloride	Cl^-
potassium	K^+	bromide	Br^-
magnesium	Mg^{2+}	oxide	O^{2-}
calcium	Ca^{2+}	sulfide	S^{2-}
aluminium	Al^{3+}	phosphide	P^{3-}

Ionic Lattice



Properties of ionic compounds

High melting points
- **Lots** of bonds to break
- Ionic bonds are **strong**
- Takes a **lot of energy** to break the bonds

Electrical Conductivity
Solids
- Do **NOT** conduct electricity
- Because **ions cannot** move

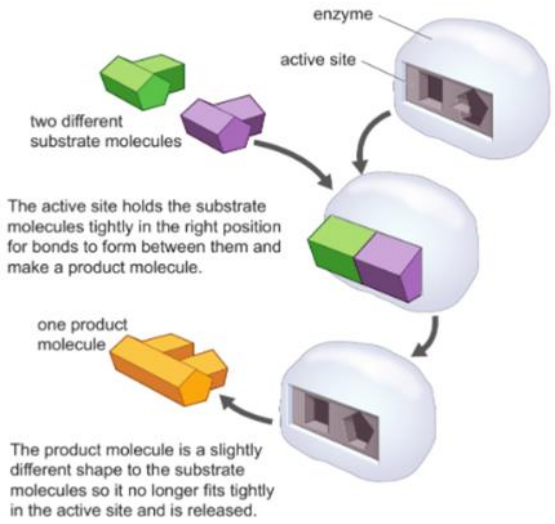
Molten or dissolved
- **Do** conduct electricity
- Because **ions can** move

Science : Biology - Enzymes

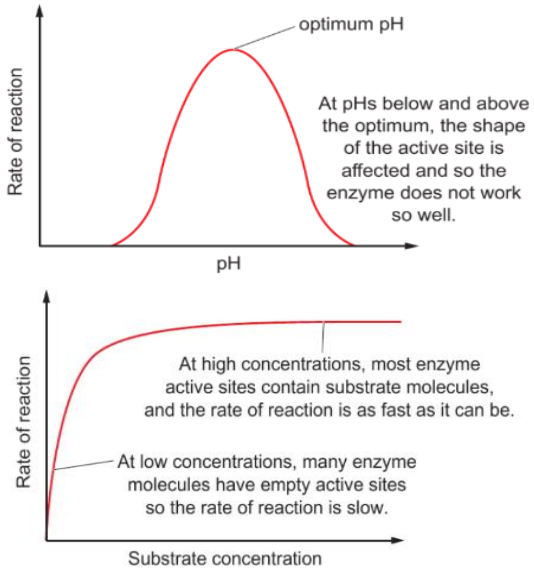
Tier 3 vocabulary	Definition
Catalyst	A substance the speeds up the rate of a reaction without being used up itself
Enzyme	A protein produced by living things that speeds up reactions without being used up itself (catalyst)
Sustrate	A substance that is changed during a reaction
Active site	The space in an enzyme where the substrate fits during an enzyme controlled reaction
Product	A substance formed in a reaction
Monomer	A small molecule that can join with other molecules like itself to form a polymer
Polymer	A long-chain molecule made by joining molecules (monomers) together
Denatured	A denatured enzyme is one where the shape of the active site has changed so much that its substrate no longer fits and the reaction can no longer happen
Lock and key model	A model that describes the way an enzyme catalysis a reaction when the substrate fits within the active site
Optimum	The best conditions at which an enzyme's rate of reaction happens at the highest rate
Limiting factor	When the rate of reaction can not get any faster despite increasing one variable, because another variable is now holding it back

Section 2: New Knowledge/Skills

Lock and key mechanism



Factors affecting enzyme activity

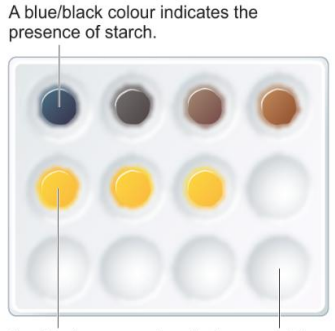


Section 3 - core practical

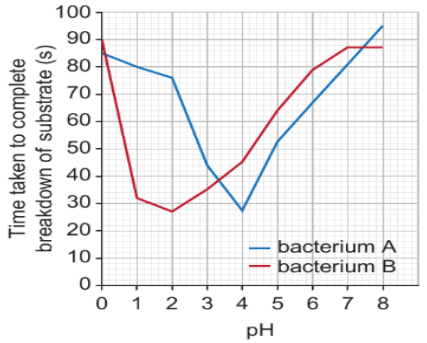
Aim To investigate the effect of pH on the rate of digestion of starch by amylase.

Amylase is an enzyme made in the salivary glands in your mouth and in the pancreas. It catalyses the breakdown of starch into smaller sugar molecules. The iodine test identifies the presence of starch, but does not react with sugar.

A Drop one drop of iodine solution into each depression of the dimple tile.
B Measure 2cm^3 of amylase solution into a test tube using a syringe.
C Add 1cm^3 of your pH solution to the test tube using a second syringe. Record the pH.
D Using a third syringe, add 2cm^3 starch solution to the mixture and start the stop clock. Use the pipette to stir the mixture.
E After 20 seconds, take a small amount of the mixture in the pipette and place one drop of it on the first iodine drop on the tile.
F If the iodine solution turns black, then there is still starch in the mixture and you should repeat step E (after 10 seconds). If it remains yellow, then all the starch is digested and you should record the time taken for this to happen



B iodine solution is used to indicate the presence of starch



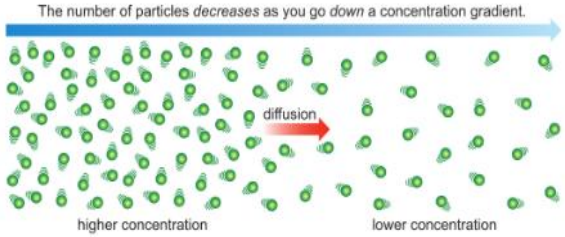
Science : Biology - Transport

Tier 3 vocabulary	Definition
Diffusion	The movement of free moving particles from an area of a high concentration to an area of a low concentration
Osmosis	The movement of water molecules from an area of high water concentration to an area of low water concentration across a partially permeable membrane
Concentration gradient	The difference between two concentrations
Solute	A substance that dissolves in a liquid to make a solution
Solvent	A liquid in which a substance dissolves to make a solution
Partially permeable	A membrane that will allow certain particles to pass through it but not others. Another term for semi-permeable.
Active transport	The use of energy to transport substances against a concentration gradient (from a low concentration to a high concentration).
Passive transport	The transport of substances without the use for energy
Section 2:	New knowledge/skill

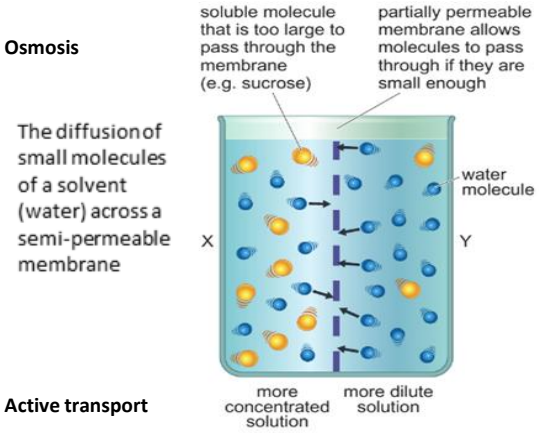
$$\text{percentage change in mass} = \frac{(\text{final mass} - \text{initial mass})}{\text{initial mass}} \times 100$$

Section 2: New Knowledge/Skills

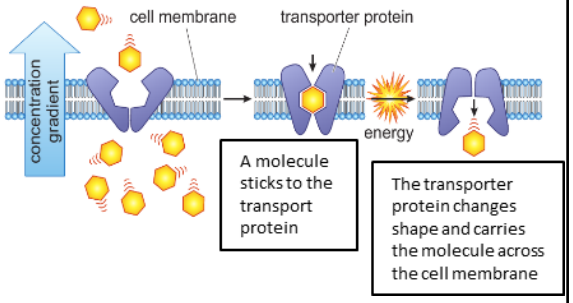
Diffusion



Osmosis



Active transport



A willow tree grows from 2.27kg to 76.74kg . Calculate the percentage change in mass.

Section 3: Core practical

Aim To investigate how solution concentration affects percentage change in mass of potato strips due to osmosis. *(note other vegetables may be used)*

A Using the waterproof pen, label each tube with the name of one of the solutions. Place the boiling tubes in the rack.

B Dry a potato strip carefully by blotting it with a paper towel. Measure its mass on the balance.

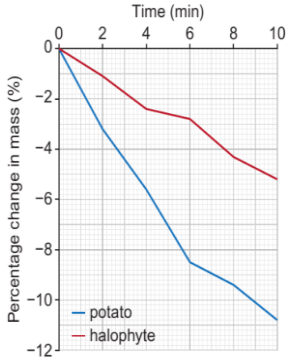
C Place the potato strip into one of the tubes. Record the label on the tube and the mass of the strip in your results table (see next page).

D Repeat steps B and C until all strips have been measured and placed in tubes.

E Carefully fill each tube with the appropriate solution, so that the potato is fully covered. Leave the tubes for at least 15 minutes.

F For each potato strip, use the forceps to remove it from its tube, blot dry on a paper towel and measure its mass again. Record all the masses in the results table.

Write a conclusion for the results in the table and the graph



Tube	A	B	C	D
Sucrose concentration (%)	0	10	30	50
Mass of potato at start (g)	4.81	5.22	4.94	4.86
Mass of potato at end (g)	4.90	4.96	4.39	3.69

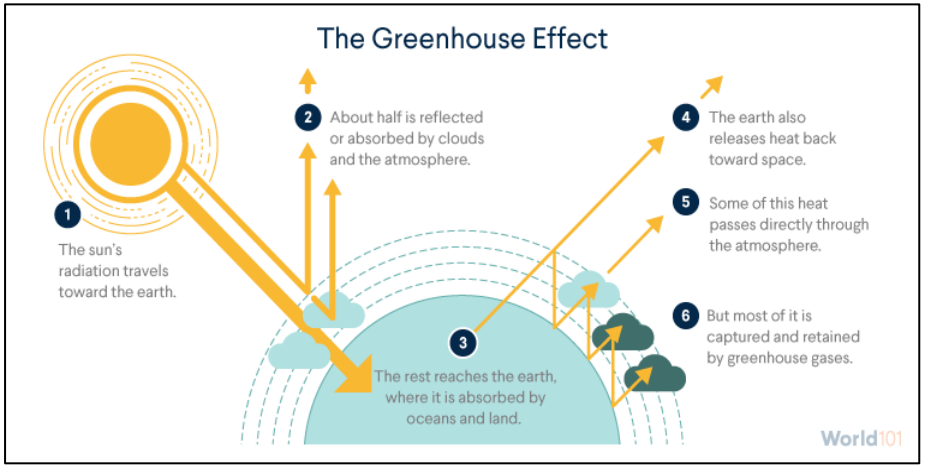
Year 9 Spring 2

Geography: Geography in Action

Tier 3 vocabulary	Definition
Climate change	How the long term average atmospheric conditions change over time.
Conservation	Managing nature to protect it from harm or putting it back how it was (restoration).
Ecosystem	The living and non-living parts of an environment and how they are connected.
Endangered	When a species is threatened and at risk of becoming extinct.
Enhanced greenhouse effect	How people's activities add gases to the atmosphere and this causes the climate to change.
Global warming	The gradual increase in the temperature of the Earth's atmosphere.
Greenhouse effect	The process whereby gases trap heat in the Earth's atmosphere, causing temperatures to increase.
Habitat	The place where an animal lives.
Non-renewable energy	Power sources that will run out e.g. fossil fuels such as coal.
Recycling	Reprocessing a product or some of its parts to make something else.
Renewable energy	Alternatives to fossil fuels e.g. solar, wind. These won't run out.

Tier 2 vocabulary	Definition
Sustainability	The practice of using natural resources responsibly, so they can support both present and future generations.
Social	Things affecting people and their community.
Economic	Things relating to money.
Environmental	Things relating to our surroundings.

Section 2: New Knowledge



Palm oil

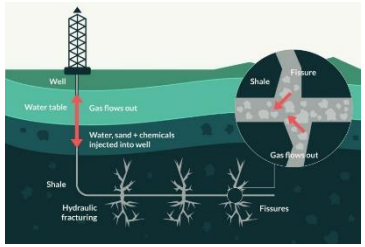
+ Makes lots of money, creates jobs and provides money for governments and businesses.

- Destroys the natural rainforest and the habitats of animals e.g. orangutans. Takes away the biodiversity and replaces it with monoculture (one type of plant).

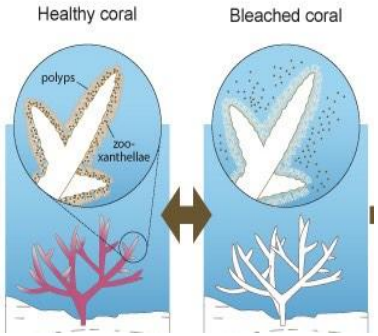
Fracking

For –Gas supply
Relatively cheap
Creates jobs
Make places more independent.

Against - Water pollution
Earthquake risk
Destroys habitats
Locals may not benefit.



Coral reefs



E.g. Great barrier Reef, Australia

At risk due to :
Fishing, shipping, climate change, tourism and crown of thorns starfish.

Renewable energy in Germany

Solar power in Freiburg e.g. panels on football stadium and houses.
Wind power in Feldheim e.g. 55 turbines.

Endangered animals

Loss due to hunting, for medicines, deforestation, climate change.

Section 3: Geographical Skills

A geographical investigation has seven stages: 1. Decide on the hypothesis. 2. Plan the data collection. 3. Collect the data. 4. Present the results. 4. Analyse the results. 6. Conclusion. 7. Evaluation.

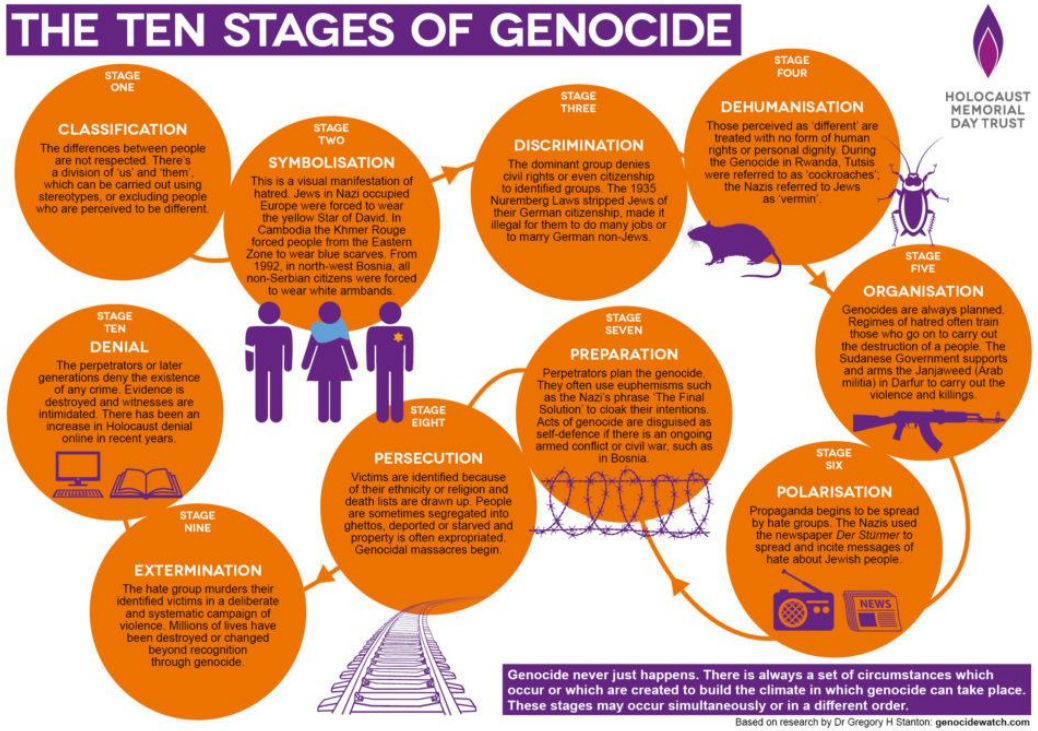
History: How did antisemitism turn into mass murder?

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Aryan	"Natural born Germans" who Nazis saw as the "master race".
Antisemitism	The hatred of or hostility towards Jews.
Holocaust	Usually described as the murder of millions of Jews by the Nazis
Concentration Camps	Places where large groups of people were kept as prisoners under armed guard.
Death camps	Killing centres established by the Nazis
Propaganda	Information used to promote a particular point of view
Ghetto	Areas in towns or cities where Jews were separated by force
Eisatzgruppen	Special units that conducted mass shootings of Jews
Euthanasia Programme	A secret programme conducted by the Nazis to murder anyone that was "undesirable"
Genocide	The deliberate killing of a particular ethnic group with the aim of destroying that nation or group.

Tier 2 vocabulary	Definition
Prejudice	An unfair opinion or judgement or feelings towards someone
Scapegoat	Blaming someone for something that wasn't their fault

The Ten Stages of Genocide



Classification

During the Holocaust, people the Nazis considered "undesirable was forced to wear symbols to distinguish themselves from the rest of the population. Jews were made to wear yellow star while other groups were made to wear different symbols, usually coloured triangles.

Year 9 Spring 2

Religious Ethics and Big Questions

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Vegetarian	Person who eats no fish or meat products.
Death Penalty	State execution as a punishment for specific crimes.
Euthanasia	Deliberate ending of the life of a person who is terminally ill, or for whom life has become unbearable due to suffering.
Abortion	The deliberate termination of a pregnancy with the intention that there should be no baby born.
Quality of life	Standard of health, comfort and happiness enjoyed by an individual; defined in terms of health and happiness rather than wealth.
Sanctity of life	The principle that human life has unconditional value.
Dominion	The responsibility and control that humans have over the earth.
Addiction	Being unable to stop doing something: having a dependence on something e.g. alcohol.

Tier 2 vocabulary	Definition
Oppression	Cruel treatment which goes on for a long time.
Justice	Fairness, bringing greater equality to the lives of people.
Discriminate	To act on prejudice, often negatively against someone or a group of people.
Compassion	Empathy for the suffering of others.
Creation	The living world: for most religions, this is considered to have been created by God.

Section 2: Topics to examine

This term we are continuing our unit on Ethics and big questions which explores the following:

Views about life.
Different views on afterlife
Sanctity of life
Abortion
Euthanasia
Limits of medicine
Reasons for funerals.
Buddhists beliefs about life and death
Humanists views on death.

Pro Life

Catholic View

Life begins at conception
All life should be protected
"Do not murder"

Pro Choice

Women should have the right to choose what to do with their own bodies.
"Love thy neighbour" - what is the most loving thing?

Section 3: Abortion

UK LAW - legal up to 24 weeks (in some circumstances) with the agreement of two doctors.
Christianity - some argue we should be compassionate and permit abortion if the mother's life is in danger. Other Christians say it is a moral evil because every life is a gift from God and only God determines life and death.

Euthanasia

UK Law - Illegal and considered either murder or manslaughter and carries a life in prison penalty.
Hospices and palliative care offer pain relief and comfort as end of life care.
Christians generally against Euthanasia - "Do not commit murder" but some argue "the most loving action" as an act to stop suffering.

Sources of authority

John 5:24-25 John 5:28-29

John 14:1-7 Corinthians 15:51-576

Revelations 21:1-4

Year 9 Spring 2

French: how things used to be and everyday life

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary/Questions

Tier 3 vocabulary	Definition
Imperfect tense	tense used to describe how things were or used to be in the past, or to say what was happening, repeated events in the past.
Perfect tense	one-off past events
Ordinal number	a number defining the position of something in a series, such as 'first', 'second' or 'third'
Relative pronoun	introduces a relative clause to give more information about a noun. 'qui' can mean who/that
Empathic pronouns	used after prepositions to emphasise a noun or pronoun
Direct object	personal, animal or thing that receives the action of the verb
Direct object pronoun	replaces the noun receiving the action of the verb e.g. me, you, it, them. il **me** regarde-he is looking at **me**
Liaison	pronouncing a usually silent letter when a word starting with a vowel follows e.g. c'est **t h**orrible/ nous **a**llons
Elision	when a vowel sound is dropped and two words are combined with an apostrophe to make speech smoother e.g. j'ai, j'habite

Questions	Translation
1. Qu'est-ce que tu faisais quand tu étais plus jeune ?	What did you used to do when you were younger?
2. Aimais-tu jouer au ping-pong ?	Did you used to like playing table-tennis?

Section 2: Grammar & Phonics

Imperfect tense formation

Find the 'nous' form of the present tense with '-ons'
e.g. parler > ~~nous~~ parl~~ons~~ + the imperfect endings

je parl**ais**	I used to speak	nous parl**ions**	we used to speak
tu parl**ais**	you used to speak	vous parl**iez**	you used to speak
il/elle parl**ait**	he/she/one used to speak	Ils/elles parl**aient**	they used to speak

The only irregular stem is from the verb **être** which is **é. e.g. C'était** It was

'il y a' + noun means **'there is /are'**
'il y a' + time means **'ago'**
Translate 'year' as 'an' after a number. So **'il y a deux ans'** means **'2 years ago'**

Emphatic pronouns you use **moi + toi** after a preposition. e.g. **avec moi** (with me)

The **relative pronoun** '**qui**' (who, which, that) can be used to introduce more information about a noun. 'Voici mon chien **qui** s'appelle Bob'.

Many verbs that end in-ate in English have in fact come from French verbs ending in –er.
éliminer> eliminate **évaluer**> evaluate **intégrer**> integrate **libérer**> liberate
éstimer> estimate **hésiter**> hestitate **communiquer**> communicate

French ordinal numbers add the suffix '-ième'. Remove the –e from the numbers ending in –e first and add 'u' to 'cinq'.
First-**premier/ière** is an exception but 21st follows the normal pattern 'le vingt-et-unième'

4 groups of –re verbs		**3 groups of -ir verbs**	
verbs like **entendre**		verbs like **choisir**	
attendre **répondre** **perdre** **dépendre**	**descendre** **mettre** **remettre**	réussir finir remplir définir	réagir réflechir nourir
verbs like **prendre**		verbs like **partir**	
apprendre	**comprendre**	**sortir**	**dormir**
verbs like **traduire**		verbs like **venir**	
dire (+interdire) **conduire**	**lire** **constuire**	**devenir** **revenir**	**appartenir** **soutenir** **contenir**
verbs like **écrire**			
inscrire	**décrire**		

Section 3: WAGOLL & phonics

Salut Abdel!

J'ai des questions sur l'université. Les cours durent toujours soixante minutes ? Comment est-ce que les professeurs t'encouragent à travailler dur ? Est-ce qu'ils t'écoutent quand tu as des difficultés ? Est-ce que l'université t'oblige à porter un uniforme ? On t'empêche de manger pendant les cours ? Tu me trouves travailleur/travailleuse ? Tu m'encourages à aller à l'université ?

Merci !

A direct object is a noun that receives the action of the verb. It answers either what? Or whom?
e.g. he takes a book

The direct object what or whom can also be a pronoun; 'me' and 'te' are the direct object pronouns 'me' and 'you'.

le/la/l' are direct object pronouns for it, him, her e.g. je la trouve cool (I find it/her cool)

The direct object noun for 'what' or 'whom' can be replaced by a direct object pronoun.

il/elle can mean **'it'** as well as **'he/she'** for people and things.
ils/elles can mean **'them'** as well as **'they'** for people and things.

French phonics

s	mai**s**on	**é**	**é**crire
SFC	silent final consonant	**SFe**	silent final -e
ai	vr**ai**	**ou**	n**ou**s
silent 'h'	**h**eure	**th**	théâtre
ch	**ch**ercher	**ill/ille**	f**ille** [ee-yih]
ail/aill	trav**aill**er [a-yih]	**ouil/ouill**	brouillard [ou-yih]
eil/eill	sol**eil** [é-yih]	**euil/euill**	fauteuil [eu-yih]

9Fr Spr2 W1	
corriger	to correct, correcting
durer	to last, lasting
la compétence	skill
la connaissance	knowledge
le contrôle	test
le système	system
cinquième	fifth
deuxième	second
quatrième	fourth
primaire	primary
sixième	sixth
troisième	third
poser	to ask
poser une question	to ask a question
longtemps	a long time

9Fr Spr2 W2	
construire	to build, building
réagir à	to react to, reacting to
réfléchir à	to think about, thinking about
l'an	year
la clé	key
le club	club
le comportement	behaviour
l'enfance	childhood
l'habitude	habit
l'ancien club	the former club
familial	family-related (m)
une habitude familiale	a family-related habit
l'ancienne maison	the former house
libre	freedom
quotidien	daily (m)
la vie quotidienne	daily life
responsable	responsible
il y a	there is, there are
il y a quatre ans	four years ago

9Fr Spr2 W3	
participer à	to participate in, participating in
l'artiste	artist (m/f)
le concours	competition
la diversité	diversity
le défi	challenge
l'émission	TV programme
le sexe	sex
le personnage	character
la scène	stage
le spectacle	show
le spectacle annuel	the annual show
la tradition annuelle	the annual tradition
le club culturel	the cultural club
la raison culturelle	the cultural reason
non-binaire	non-binary
sexuel	sexual (m)
transgenre	transgender

Revision vocab is in your Y8 French vocabulary book under these labels

9Fr Spr2 W4A	revision
9Fr Spr2 W4B	revision
9Fr Spr2 W4C	revision
9Fr Spr2 W4D	revision

0	zéro
1	un
2	deux
3	trois
4	quatre
5	cinq
6	six
7	sept
8	huit
9	neuf

10	dix
11	onze
12	douze
13	treize
14	quatorze
15	quinze
16	seize
17	dix-sept
18	dix-huit
19	dix-neuf

20	vingt
21	vingt-et-un
22	vingt-deux
23	vingt-trois
24	…

30	trente
31	trente-et-un
32	trente-deux
33	…

40	quarante
41	quarante-et-un
42	quarante-deux
43	…

50	cinquante
51	…

60	soixante
61	…

60	60	soixante
61	60 + 1	soixante-et-un
62	60 + 2	soixante-deux
63	60 + 3	soixante-trois
64	60 + 4	soixante-quatre
65	60 + 5	soixante-cinq
66	60 + 6	soixante-six
67	60 + 7	soixante-sept
68	60 + 8	soixante-huit
69	60 + 9	soixante-neuf

70	60 + 10	soixante-dix
71	60 + 11	soixante-et-onze
72	60 + 12	soixante-douze
73	60 + 13	soixante-treize
74	60 + 14	soixante-quatorze
75	60 + 15	soixante-quinze
76	60 + 16	soixante-seize
77	60 + 17	soixante-dix-sept
78	60 + 18	soixante-dix-huit
79	60 + 19	soixante-dix-neuf

80	4x20	quatre-vingts
81	4x20+1	quatre-vingt-un
82	4x20+2	quatre-vingt-deux
83	4x20+3	quatre-vingt-trois
84	4x20+4	quatre-vingt-quatre
85	4x20+5	quatre-vingt-cinq
86	4x20+6	quatre-vingt-six
87	4x20+7	quatre-vingt-sept
88	4x20+8	quatre-vingt-huit
89	4x20+9	quatre-vingt-neuf

90	4x20+10	quatre-vingt-dix
91	4x20+11	quatre-vingt-onze
92	4x20+12	quatre-vingt-douze
93	4x20+13	quatre-vingt-treize
94	4x20+14	quatre-vingt-quatorze
95	4x20+15	quatre-vingt-quinze
96	4x20+16	quatre-vingt-seize
97	4x20+17	quatre-vingt-dix-sept
98	4x20+18	quatre-vingt-dix-huit
99	4x20+19	quatre-vingt-dix-neuf

School year group names	
la sixième	Y7
la cinquième	Y8
la quatrième	Y9
la troisième	Y10

In France, the euro symbol € comes after the number and a comma is used instead of a decimal point: 40,25 €.

Year 9 Spring 2

German: Ambitions and Positive Experiences

Section 1: Key Vocabulary/Questions

Tier 3 vocabulary	Definition
Article	small word that goes before a noun, e.g., a, an, the, some
Indirect object pronoun	replaces the person, people or thing(s) that the verb action is done to, when the action is to me, for you, to them
Suffix	a letter or group of letters added to the end of a word to change its meaning or how it is used, e.g., -ung
Comparative	a form of adjective or adverb used to compare people, things or ideas
2-verb structure	where the 2nd (infinitive) verb comes at the end of 2-verb sentences
Dual-case preposition	preposition followed by accusative to indicate movement or by dative to indicate location
Perfect tense	a verb tense that describes completed actions in the past, e.g., 'I said', 'she played'
Imperfect tense	German single-word past tense used mainly to narrative past events in writing, e.g., 'war', 'hatte', 'gab'

Questions	Translation
Warum gehst du in die Schule?	Why do you go to school?
Kannst du Schottland und Australien vergleichen?	Can you compare Scotland and Australia?
Was gefällt dir?	What do you like?

Section 2: Grammar

mögen
mögen - to like, liking
möcht- (would like) is a special form of **mögen**

mögen works like a standard verb where the subject likes something, e.g.,
ich mag Fußball - I like football
er mag Mathe – he likes Maths
Magst du London? - do you like London?

gefallen
gefallen - to please
use it with an **indirect object pronoun**
Fußball **gefällt mir** - Football **pleases me / is pleasing to me**
Die Schule **gefällt mir** - School **pleases me / is pleasing to me**
Meine Freunde **gefallen mir** - My friends **please me / are pleasing to me**

Comparatives
Adjectives can be made into **comparative** adverbs by adding the **suffix** -er,
schnell**er** – faster
freundlich**er** – more friendly

One syllable words with a, o, u add an umlaut in the comparative form
oft - often **öfter** - more often
warm - warm **wärmer** - warmer

Some comparatives are irregular
gern - gladly **lieber** - preferably
gut - good **besser** - better

TMP – Time, Manner, Place
German adverbs in a sentence follow the order time before manner before place, abbreviated to **TMP**. English is more fluid with the order of these adverbs.

Ich gehe jeden Tag mit meinen Freunden ins Fitnessstudio – I go the gym with my friends every day.

Ich muss oft schnell zur Schule rennen – I often have to run to school quickly

Wir fliegen immer lieber nach Paris- We always prefer to fly to Paris

TMP (wann-wie-wo) applies in all tenses. In the perfect tense, the past participle goes at the end of the sentence after the **TMP** elements.
Ich bin gestern mit dem Bus in die Stadt gefahren – I went to town on the bus yesterday.

Section 3: Grammar & Phonics

2-verb structures
In **2-verb structures**, the 2nd verb in the infinitive comes at the end of the sentence.

Wir werden in Berlin **arbeiten** – we will **work** in Berlin
Er muss mir **helfen** – he has to **help** me

Some verbs require the addition of **zu** when combined with a 2nd (infinitive) verb. Infinitive constructions with **zu** are separated from other clauses with a comma.

Ich versuche**,** meinen Fußball **zu finden** - I'm trying **to find** my football

Sie hoffen**,** das Cricketspiel **zu gewinnen** – they're hoping **to win** the cricket match

um...zu... is an infinitive construction meaning 'in order to'. A verb in the infinitive form must follow **zu**

- Wir gehen in die Stadt, **um** Brot **zu** kaufen - we're going to town (in order) to buy bread
- Ich gehe in den Wald, **um** Holz **zu** sammeln – I'm going into the forest (in order) to collect wood.
- **Um** eine Prinzessin **zu** finden, hat sie online gesucht - (In order) to find a princess, she looked online

Dual case prepositions
an, auf, hinter, in, neben, über, unter, vor, zwischen

These are followed by the accusative case if they answer the question **wohin?** (where to) and by the dative case if the answer the question **wo?** (where)

Ich gehe ins (in das) Kino – I'm going (in)to the cinema
Ich bin im (in dem) Kino – I am in the cinema

Phonics

th	sound s like t	**Th**eater	th	pronounce th separately if they are different syllables	Rathaus
v	like f	**v**ergessen	w	like v	**w**o
u	long short	d**u** P**u**nkt	ü	long short	T**ü**r f**ü**nf

9Gr Spr2 W1	
schließen	to close, closing
übersetzen	to translate, translating
die Freude	joy
das Gedicht	poem
die Gefahr	danger
das Risiko	risk
die Sicherheit	security, safety
die Sprache	language
das Syrien	Syria
der Weg	path, way
fremd	foreign, strange
frei	free
weder	neither
noch	nor

9Gr Spr2 W3A	
benutzen	to use, using
geben	to give, giving
gefallen	to please, pleasing
gehen	to go, going
gehören	to belong, belonging
reisen	to travel, travelling
sitzen	to sit, sitting
trinken	to drink, drinking
wandern	to (go on a) walk or hike
mit wem?	with whom?
was?	what?
wohin?	where to?

9Gr Spr2 W3D	
beste	best (f)
bestes	best (nt)
frisch	fresh
gleich	same
modern	modern
tief	deep
wunderbar	wonderful
an	on
in	in, into
zu	too, to
als	as, than
und	and
lieber	rather
Warum?	Why?
nicht wahr?	isn't it?

9Gr Spr2 W4A	
enthalten	to contain
erfahren	to experience
erhalten	to receive, receiving
erlauben	to allow, allowing
erleben	to experience, experiencing
fallen	to fall, falling
gelegen	lay (down) (pp)
legen	to lay, put
verdienen	to earn
vergessen	to forget, forgetting

9Gr Spr2 W4D	
der Schauspieler	actor
Juli	July
die Lust	desire
die Uniform	uniform
arm	poor
falsch	false, wrong
freiwillig	voluntary
ganz	whole, all the
gefährlich	dangerous
gemeinsam	common, mutual
leicht	easy

9Gr Spr2 W5C1	
waschen	to wash, washing
anziehen	to put on, putting on
fühlen	to feel, feeling
nennen	to name, naming
halten	to hold, keep, stop
beschließen	to decide, deciding
einladen	to invite, inviting
melden	to register, report
sich freuen	to be happy
sich melden	to get in touch
sich unterhalten	to have a good time, chat
unterhalten	to entertain, entertaining

More word lists are available in your Y9 German word list booklet.

Year 9 Spring 2

Computing: The Ethics of Computing

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Credit	Acknowledging who created content - text, images, videos and sounds that you are making use of.
Copyright	People own the copyright of material they create.
Creative Commons license	Used when an author wants to give people the right to share, use and build upon work that they have created.
Digital footprint	The information about a person on the Internet.
e-waste	Electrical devices that have been thrown away.
GDPR	General Data Protection Regulation - one of the two main laws that protect data.
Data Protection Act	Everyone responsible for using personal data has to follow strict rules called 'data protection principles'.
Social media profile	A description of a person's characteristics that is used to identify them on social media sites.
Digital well-being	Having a healthy relationship with digital technology.
Deep web	The part of the World Wide Web that is not discoverable using standard search engines, including password-protected and encrypted networks.
Surface web	The surface web is the portion of the World Wide Web that is readily available to the general public and searchable with standard web search engines.
Dark web	The part of the World Wide Web that is accessed with special software, allowing users and website operators to remain anonymous or untraceable.

Tier 2 vocabulary	Definition
Ethics	Moral principles that govern a person's behaviour.
Illegal	When something is illegal it is against the law.
Immoral	When something is immoral, it is not necessarily against the law but it is against acceptable standards of behaviour.
Moral dilemma	A situation that requires a choice between two options, both of which can be viewed as immoral.
Censorship	Censorship is the suppression of speech, public communication, or other information done because such material is considered objectionable, harmful, sensitive, or "inconvenient".
Surveillance	Surveillance is the monitoring of behaviour, many activities, or information for the purpose of information gathering, influencing, managing or directing.

Section 2: New Knowledge/Skills

The Trolley Problem - In 1967, the moral philosopher, Philippa Foot, created the Trolley Problem. Imagine you are the driver of a runaway tram (a trolley).

All you can do is steer from one narrow track to another. Five men are working on one track and one man is working on the other track. Anyone working on the track when the tram enters it will be killed. Which track do you choose?

Now we have driverless cars and the Trolley Problem has become a very real moral dilemma.

Section 3: Other subject specific things

To credit a source, you must state who created it (author and/or company), the title of the article or page it came from, the date it was published, the web address of the page you found it on and the date you accessed the web page.

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1. Only collect and use personal data in a fair and lawful way.
2. Only use data for the reason you collected it—and nothing else.
3. Don't collect more data than necessary.
4. Make sure the data is correct and up to date.
5. Only keep data as long as you need it.
6. Let people see their data and correct it if needed.
7. Protect data from being lost, stolen, or seen by the wrong people.
8. Only transfer data to other countries if they have strong data protection laws.

Year 9 Spring 2

PE: Netball

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Holding Space	Using your body to protect a space you want to move into.
Interception	Deflecting or catching the ball whilst it is on route to another player.
Repossession	Catching, dropping and then re-catching the ball.
Rebounding	Trying to reclaim the ball after an attempted shot at goal.
Driving onto the ball	Sprinting towards the ball when receiving a pass.
Throw-up	Method used to restart the game after two players simultaneously commit a foul.
Double Lead	Two players running out at an angle in different directions to give two passing options to a player in possession of the ball.

Section 2: New Knowledge/Skills

Within the netball module you will learn about :

Tactics used at the centre pass – both in terms of attacking and defending the centre pass in order to try and maintain/win possession of the ball. Think about why it is important to keep possession of the ball during your own team's centre pass.

The correct technique for defending a shot at goal. Know where to move to in order to rebound a shot and then try to regain possession of the ball. Why is this important?

Holding space – you will be able to demonstrate the correct technique and know when to throw the ball to a player who is holding space. Can you identify when this technique would be effectively used?

Intercepting the ball - focusing on the correct technique and being able to intercept a pass without causing contact. Can you identify key points of how to carry out this technique?

Driving effectively onto the ball by running out at an angle, using a change of speed and direction and looking at double leads to help maintain possession of the ball.

PE: Hockey

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Penalty corner	An attacking set piece with the attackers lined up outside the circle and the defenders on the goal line.
Injection	Passing the ball into play from the penalty corner.
25m hit	Hockey's version of football's corner when a defender hits the ball behind their own goal line.
Jab tackle	A one-handed effort to reach in and knock the ball away from a dribbling player.

Section 2: New Knowledge/Skills

In Year 9 Hockey, you will be working towards playing the full **11 v 11** version of the game with some of the more advanced rules such as **penalty corners** and **25m restarts**.

You will develop your range of skills by considering different ways to **score** when you get in and around the **shooting circle**.

Part of your development in hockey will include leadership and you may be asked to set up a practice for your teammates, captain a team or umpire a game.

As you go through the lessons, you should be able to answer some of these questions:

- Explain the difference between the jab tackle and the block tackle?
- Why is a penalty corner awarded and how do the players line up for it to be taken?
- Where (exactly) is a 25m hit take from?
- What are your options if you find yourself dribbling towards the keeper and how would you choose which one to use?
- Name 5 rules you would be looking out for if you were umpiring a hockey game.
- Describe a playing formation you might use to set your team up if you were captain.

PE: Volleyball

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Set	Passing the ball from in front of the forehead using the fingers and thumbs of both hands.
Dig	Passing the ball with the forearms - between the wrists and the elbows.
Spike	Volleyball's version of the smash - hitting the ball firmly over the net making it difficult for the opponents to return.
Block	The best defence against the spike is to jump up with both hands at the net to try to stop the ball coming over to your side.
Serve/service	The start of the rally can be done underarm or overarm. It must be taken by the player at the back right side corner.
Sideout	This is when the service transfers to the other team and the players move to a new position by rotating in a clockwise direction.

Section 2: New Knowledge/Skills

The Year 9 Volleyball module will provide an introduction to a sport which is hugely popular among Key Stage 4 students.
You will learn the key rules and skills to enable you to take part in a 4v4 game.

You should be able to answer these questions as you go through your volleyball module:

Give 3 points of technique for performing a set.

Why should a player try to set the ball rather than dig it? Give 3 points of technique for the dig?

How many shots is a team allowed to get the ball over the net? How many players are there in a volleyball team?

Who takes the next serve in a game of volleyball?

Suggest 5 ways a volleyball rally comes to an end.

Year 9 Spring 2

PE: Rugby

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Touch judge	An important officiating role which you may need to take on in lessons.
Gain line	An imaginary line across the pitch where the breakdown occurs.
Conversion	Kicking over the bar for after a try is scored.
Drop kick	A half-volley kick to start the game.
Drop goal	A drop kick over the posts.
Kick for touch	Kicking the ball off the side of the pitch when your team is under pressure.
Props	Two forwards that support the hooker in a scrum.
Hooker	The forward who goes in the front middle of the scrum and tries to hook the ball with their feet.
Fly-half	A back who receives the ball from the scrum-half and decides how the backs will attack.

Section 2: New Knowledge/Skills

In Year 9 rugby we are working towards playing the full 15-a-side version of the games with everyone able to contribute as a back or a forward in a specific position.

Try the following questions to check your knowledge of 15-a-side rugby:

Can you explain the full scoring system in rugby?

How many of the 15 positions on the field can you name?

What is the importance of the 'gain-line'?

How many players make up a full scrum?

Which players do most of the kicking in a game of rugby?

When might a team try for a drop goal?

Where is a conversion taken from?

PE: Table Tennis

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Back spin	Hitting down the back of the ball to make it travel more slowly over the net - a defensive tactic.
Top spin	Hitting over the top of the ball to give it topspin will cause it to dip as it goes over the net - an attacking tactic.
Variation	Doing different things to keep your opponent guessing - playing different shots to different parts of the table for example.
Attack	One playing is usually on the offensive, trying to hit the winning point.
Defence	If your opponent is on the offensive, you made need to adjust your position and your shot selection to effectively defend their shots.
Shot selection	The skill of knowing what shot to use at any point in the game.
Block	A defensive tactic of just putting your bat out to bounce the ball back over the net.
Loop	Playing the ball back high over the net when defending to give yourself time to get ready to defend the next shot.
Backhand flick	An attacking version of the backhand push. Just flick the wrist to add power.

Section 2: New Knowledge/Skills

Year 9 table tennis will provide plenty of opportunity for you to compete with your classmates. As you compete more, you will develop tactical 'answers' to what is happening in the game.

You should be able to recognise when you are in attack and when you are in defence and start to change your shot selection and your positioning.

You will be expected to umpire and keep score for your classmates, being confident in stopping rallies when faults occur.

PE: Gymnastics

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Partners/Pairs	Performing with 1 other student.
Trios/Groups	Performing in a group of 3 or more.
Cannon/ Mirror/ Unison	Performing 1 after the other/performing in time in opposition/performing in time.
Counter balance	Leaning inward or towards a partner or group to support or maintain a balance.
Counter tension	Leaning outward or away from a partner or group to support or maintain a balance.
Weight bearing	Acting wholly or partially as the base of support in a pair or group balance.

Section 2: New Knowledge/Skills

In Year 9 gymnastics, you will be challenged to develop more complex sequences with more people involved and more complex moves. This will not only develop your gymnastic skills, you will need to use good leadership and communication skills to get your group to work as a unit to create and perform the sequence.

Try these questions to check your understanding of Year 9 gymnastics:

Describe a weight-bearing balance as a trio?

Describe a counter-tension position for a group?

Explain how a group of 4 people could perform a counter-balance position?

What qualities does a leader need in order to organise a group into an effective sequence?

Year 9 Spring 2

PE: Basketball

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Rebound	Catching the ball after a missed shot.
Offensive rebound	Taking a rebound when your team is in attack giving your team another chance to score.
Defensive rebound	Taking a rebound when you are in defence, preventing the other team from having another shot.
Assist	Setting a teammate up to score a basket.
Outlet pass	Making a quick pass out from under your own basket to set up an attack after you have taken a rebound.
Breakout dribble	Making a quick dribble out from under your basket (2 or 3 bounces) to set up an attack for your team.
Officiating crew	The team of officials needed to run a basketball game including a referee, an umpire, a scorer and a timekeeper.
Half court defence	Running back after your team lose possession to defend close to your own hoop.

Section 2: New Knowledge/Skills

In basketball this year, you will be working towards playing the full court version of the game, with some of the more advanced rules and tactics. Hopefully, after your lessons, you will be able to answer some of the following questions:

What is the backcourt rule?

What are some of the time limits that players have to be aware of in a game of basketball?

Why is half-court defence played most of the time?

When might a team use full-court defence?

What makes a good rebounder and why are they so important to a team's success?

PE: Health and Fitness

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Components of fitness	Our fitness can be broken down into 11 components of fitness which we all possess. Examples include speed, strength, agility.
Effects of exercise	The short term effects of exercise are changes in the body which occur as a result of physical activity. We should know why they occur.
Fitness testing	Each component of fitness can be measured by a test. Using fitness tests can help performers to see if their training is having a positive effect on their fitness.
Circuit training	A method of training which involves exercising at a station then having a rest before moving to the next station.
Weight training	Using a resistance such as a dumbbell to exercise a specific muscle.
Heart rate	How fast our heart beats can be a good measure of how hard we are working and a good measure of how fit we are.

Section 2: New Knowledge/Skills

The Health and Fitness module will give students a good foundation for taking responsibility for their own fitness.

You will look at a variety of ways to measure your own fitness and a variety of ways to improve your own fitness.

Many of the exercises and activities we do can be repeated at home with little or no equipment - you take responsibility!

The unit also provides a taste of some of the content students will experience should they opt for exam PE in KS4.

Try these questions as you complete this module:
How many of the major muscles can you name?
Can you link 5 components of fitness with their fitness test?
Can you list 10 exercises you can do with a pair of dumbbells?
Can you list 10 exercises you can do without any equipment?
Which heart rate is an important measure of your health?

PE: Running

New Knowledge/Skills

You will use the same running route (3 laps/2200m) to work on endurance and work towards a **personal best** time. You will set your own targets based on previous times and set yourself **interim targets** (lap times and split times) to help you reach your goal.

We will continue to develop our **mental approach** to running by looking at some basic **tactics** (strategies) - when to run faster or when to conserve energy.

To improve our performance we will look at two **training methods** which can be used to improve running: **fartlek and interval.**

Fartlek training means running at different speeds for varying distances whereas interval training involves running a set distance or for a set time and then having a period of rest.

PE: Health and Fitness

New Knowledge/Skills

Our focus on health and fitness across the sports will be on the **components of fitness** and how they are required in different activities.

Question: Can you list the 11 components of fitness?

Hopefully, you will be able to identify the main components of fitness used in any sport you do.

PE: Leadership

New Knowledge/Skills

You will be challenged at times to take on the role of captain and help influence your team's performance.

You may be asked to lead a warm up in front of the class to help develop your confidence to stand in front of and speak to a large group of people.

You will also be given time in some activities to create your own practices for a group of classmates.

Year 9 Spring 2

Art: 'We Also Served'

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary	
Tier 3 vocabulary	**Definition**
Emigre	a person who has left their own country to live in another.
Depiction	To represent or show something.
Fatalities	An occurrence of death by accident.
Conflict	war
Provocative	Causing anger or another strong reaction.
Dehumanizing	To deprive someone or something of human qualities or dignity.
Segregated	Set apart from each other, isolated or divided.

Tier 2 vocabulary	Definition
Charcoal	drawing media- black , crumbly stick made from burnt wood
Blend	merge tone/colour from one to another
Tone	light and shade
Proportion	comparative measurements
Ink	An ancient writing and drawing medium in a liquid or paste form, containing coloured dyes of pigment.

Section 2: New Knowledge/Skills

World War II was a global conflict between the Allies and the Axis powers. During this conflict there were around 50 to 85 million fatalities. Throughout this project, we will be looking at different artists depiction of predominantly black soldiers or of individuals overlooked in mainstream depictions of war.

Barbara Walker is a British artist known for her powerful and often provocative works that explore gender, identity, race and history. Walker's work doesn't focus on the traditional battlefield scenes or heroic depictions of soldiers, but rather on the intimate human aspects of war. Her work often combine elements of portraiture, abstraction and symbolism, creating compelling visual narratives. Her work is less about the glorification of conflict and more about the dehumanizing effect of violence, the emotional cost of war, and the resilience of individuals who endure it.

I was there IV
1964
Ink on tracing paper

Black people had participated in every major American conflict since the birth of the nation. And though by 1940, the War Department had removed a number of restrictions on permitting African Americans to join the armed forces under the Selective Service Act, society as a whole remained racially segregated. This separation of black and white people in the US was upheld by state and local laws, referred to as 'Jim Crow', and was particularly notable in the American deep south. These laws excluded black American citizens from economic and political rights.

Elizabeth Catlett was an American and Mexican sculpture and graphic artist. Her work spans over six decades and focusses on her own personal experiences as an African American women, mother and emigre living in Mexico.

"I am inspired by Black people and Mexican people, my two peoples."

Elizabeth Catlett's work directly addresses people whose perspectives and experiences, like hers, had historically been excluded from artistic representation.

Year 9 Spring 2

Music: Mastering Composition (Soundtracks)

BELPER SCHOOL and Sixth Form Centre

Section 1: Key VocabularyS

Tier 3 vocabulary	Definition
Leitmotif	A frequently recurring short melodic or harmonic idea which is associated with a character, event, concept, idea, object or situation.
Diagetic Music	Music within the film for both the characters and audience to hear e.g. a car radio, a band in a nightclub or sound effects.
Non-diagetic Music	Music which is put "over the top" of the action of a film for the audience's benefit and which the characters within a film can't hear – also known as UNDERSCORE or INCIDENTAL MUSIC.
Underscore	Underscore is a soft, background soundtrack that plays quietly under dialogue or other audio in a performance.
Ostinato	A repeated music pattern.
Drone	A long held note.

Tier 2 vocabulary	Definition
Soundtrack	The music and sound recorded on a motion-picture film.
Melody	A combination of pitch and rhythm. Often the main tune.
Rhythm	A combination of different note values to create a pattern.
Notation	Written symbols used to represent the notes on the stave.
Composition	The creation of music.

Section 2: New Knowledge/Skills

The purpose of music in films
Film Music is a type of **descriptive music** that represents a mood, story, scene or character. It is designed to support the action and emotions of the film on screen.

How musical elements can be used in film music
Pitch and melody– rising melodies are often used for increasing tension, falling melodies for defeat. Westerns often feature an epic theme. Question and answer phrases can represent good versus evil. The interval of a fifth is often used to represent outer space with its sparse sound.

Dynamics – forte (loud) dynamics to represent power; piano (quiet) dynamics to represent weakness/calm/resolve. Crescendos are used for increasing threat, triumph or proximity and Decrescendos or diminuendos are used for things going away into the distance. Horror Film soundtracks often use extreme dynamics or sudden dynamic changes to 'shock the listener'.

Harmony – Major chords are used to create a happy sound. Minor chords are used to create a sad sound. Dissonant (clashing) harmonies or chords create a felling of unease.

Duration– long notes can be used to describe vast open spaces and short notes are often used to depict busy, chaotic or hectic scenes. Pedal notes, or drones, are long held notes in the bass line that can be used to create tension and suspense.

Texture – Thin, sparse textures can be used for bleak or lonely scenes; A thick, full texture can be used for active scenes or battles.

Articulation– Playing smoothly, or legato, is often used for flowing or happy scenes. The opposite is staccato, which means short and spikey notes. Accents are extra stresses that are put on notes – these can be used for extra shock within a scene.

Section 3: Other/Previous Knowledge/Skills

Leitmotif

Leitmotifs a short, recurring melodies or harmonic ideas that are associated with a character, event, concert, idea, object or situation.

Soundscape

A soundscape in film is a combination of sounds that create a sense of place and atmosphere, and support the story.

Another name for the **soundscape** in an **underscore**. The music happens under the dialogue or other audio in the film.

Learn more about underscore here

Composing music for film

The Marvel Symphonic Universe

Storyboard

A storyboard is a series of pictures or illustrations that map out the key events of a story. It can be used during the film music composition process to plot the main action or mood points within a scene and to make initial plans on what compositional elements will be used.

Links to prior learning: Mastering Performance (Film Music), Keyboard Skills, Strike a Chord, The Four Chord Trick, Hooks and Riffs.

Year 9 Spring 2

Drama: Brecht

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Epic Theatre	A range of theatrical devices used to make the audience think.
Didactic Theatre	Theatre that educates and send a message to the audience.
Bertolt Brecht	A German Theatre Practitioner and playwright.
Gestus	A clear character gesture or movement used by the actor that captures a moment or attitude rather than delving into emotion.
Alienation	Familiar contents are presented in an unfamiliar way so that the audience does not empathise with the story of a drama.
Episodic Structure	Scenes are **episodic**, which means they stand alone and are constructed in small chunks, rather than creating a lengthy and slow build of tension.
Multi-Role	Actors play multiple characters within the same piece of theatre.

Tier 2 vocabulary	Definition
Socio-Political Issues	Issues and political decisions that effect the peoples lives and the world.
3rd Person Narration	Commenting upon a character as an actor is a clear way of reminding the audience of theatricality.
Direct address	The actors speak directly to the audience, sometimes in the form of questions, this reminds the audience that what they are seeing isn't real and forces them to think about what they are watching. This is called 'breaking the fourth wall'.

Section 2: Who is Brecht?

Bertolt Brecht (1898-1956) was a famous German playwright and poet.

"Art is not a mirror with which to reflect reality but a hammer with which to shape it."
Bertolt Brecht

What is the Alienation effect?
The idea of Alienation or the Verfremdungseffekt was to constantly remind the audience they were in a theatre, watching a play.

These techniques break the illusion of drama. We do not get lost in the story or the characters.

Instead we are constantly reminded that these are actors communicating ideas and situations to us.

How did Brecht make the audience step back and view the message rather than the spectacle?

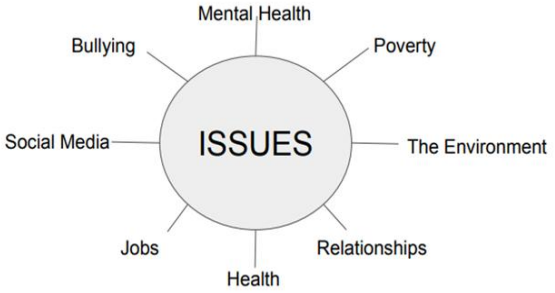
This short video explains the ideas of Epic Theatre.

Epic Theatre provokes the audience to think. It often uses a parable, a story with a wider meaning as a vehicle to address social issues or viewpoints and opinions.

Epic Theatre plays with short 'stand alone' scenes, the structure often ignores the usual constraints of linear timelines. These short contrasting scenes create humour, provoke thought and make the audience reflect.

Section 3: Exploring Social Issues

An Example of a socio-political Issues Mind Map



Pendulums Emporium is a production by local theatre company Maison Foo.

The production explores a wide range of social issues.

Section 3: Links to Prior Learning

In year 7 you studied Greek Theatre and were taught about the role of the narrator. In year 8 you studied Bullying and in year 9, Gangs. You were taught how to explore these issues through different drama techniques. In year 8 you were taught about abstract theatre when devising pieces of theatre about cyber bullying.

D&T FOOD: Booklet 2 Diet through life/ Special Dietary Needs

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Colostrum	The very first "Milk" produced when a baby is born. It is rich in nutrients and antibodies to protect the baby who is born with no immune system
Folic Acid	Folic Acid is the synthetic version of the Vitamin B9 (Folate). Recommended during pregnancy to prevent neural tube defects.
Anaemia	Deficiency disease caused by a lack of iron in the diet.
Body Mass Index	A method of calculating whether ADULTS are at the recommended weight for their height.
Osteoporosis	Sometimes known as "brittle bone" disease. More likely (but not only) to occur in older women. occure
Anaphylaxis	Severe potentially life threatening allergic reaction

Tier 2 vocabulary	Definition
Infancy	. Birth to early years (toddlers)
Adolescence	Teenage years
Lactation	Breast feeding
Weaning	Moving from breast milk to soft foods
Menstruation	Also known as periods. Girls lose blood monthly and are more prone to anaemia
Menopause	As women age they stop having periods, their hormones change and their dietary requirements change.
Vegan	Eats no ingredients which have come from animals / fish /birds /insects
Vegetarian	Doesn't eat meat & fish but will eat eggs, milk & cheese

Section 2: New Knowledge/Skills

A food intolerance means that the body can't digest food properly, or that a particular food might irritate the digestive system. (e.g. coeliac disease) Symptoms include nausea, cramps, tummy ache, diarrhoea.

A food allergy happens when the body's immune system sees the food as an invader. This leads to an allergic reaction. Someone with a food allergy is always at risk for the next reaction being life-threatening. Eating a tiny amount of the food could lead to anaphylaxis. So anyone with a food allergy must avoid the problem food and always carry emergency injectable epinephrine. (Epi- pen)

The 14 allergens which must be labelled in bold are celery, cereals containing gluten (such as barley and oats), crustaceans (such as prawns, crabs and lobsters), eggs, fish, lupin, milk, molluscs (such as mussels and oysters), mustard, peanuts, sesame, soybeans, sulphur dioxide and sulphites

Red Tractor is a food assurance scheme showing the food has been farmed, processed and packed in the UK. It is traceable, safe to eat and has been produced responsibly.

Marine Stewardship Council
Using sustainable methods of fishing to prevent the decline in number of fish in our seas.

Organic means the food has been produced without using any chemicals. Only natural fertilisers and pesticides are used to help crops grow.

Foods that have this label mean the animals have had a good life and have been treated with respect & farms checked by the RSPCA

Section 3: Other subject specific things

Factors affecting food choice

Factor	
Cost	Some families have to budget due to low incomes
Age Group	Different age groups have different nutritional needs
Health	e.g. type 2 diabetes, anaemia, osteoporosis, obesity
Vegetarian Vegan	Don't eat meat/fish; don't eat or use any animal products
Religion	e.g. Hindu/Muslim/Jewish/ Buddhist etc
Intolerance	e.g. intolerance to wheat /gluten, dairy/lactose
Allergies	e.g. nuts/shellfish, eggs, wheat, dairy (14 allergens)

Heat Transfer

Conduction - heat transfer through physical contact e.g. the base of a pan on a hob
Convection - convection currents tend to occur in liquids (e.g. boiling water) and gases . Hotter particles rise and cooler particles drop.
Radiation - thermal radiation is emitted from a heat source e.g. the grill, and travels to the food via particles in the air (photons)

Homework
Read through the information in your booklet and on the Knowledge organiser about diet through life then complete the Google classroom quiz. (Ask your teacher for a paper copy if needed.)

Year 9 Rotation 2

D&T Textiles : Containers with zips

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

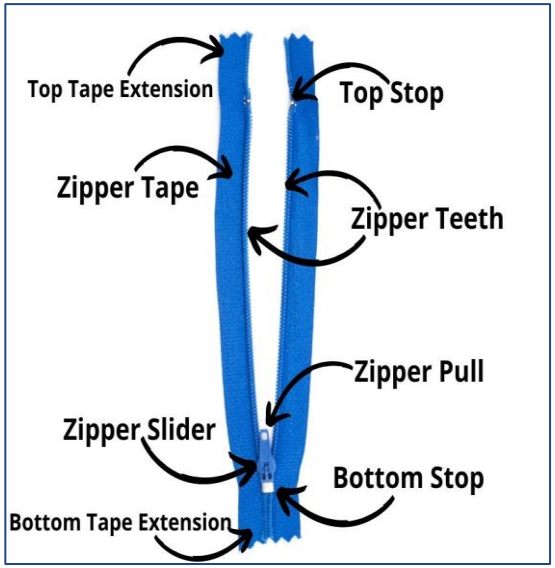
Tier 3 vocabulary	Definition
Applique	Sewing fabric shapes onto a background fabric for decoration.
Seam allowance	The distance (usually 1.5cm) between the fabric edge and the stitching line.
Applique	Sewing fabric shapes onto a background fabric for decoration.
Embellishment	Decorative details added to the fabric, such as beads, sequins, or embroidery.
Fabrication	The process of constructing the pencil case from different parts.

Tier 2 vocabulary	Definition
Accuracy	Being precise with measurements to ensure parts fit together.
Component	An individual part added to a product, such as a zip or button.
Function	The practical purpose and usefulness of the item.
Analyse	To examine design ideas or existing products in detail to understand how they work.
Durability	A product's ability to withstand wear, pressure, or damage over time.

Section 2: Skills

Zips

You will need to put a zip into your pencil case. You will need to do this carefully so that the teeth of the zip do not get caught on the fabric or the stitching.
You will need to use the ZIPPER FOOT for this. As you can see from the picture it allows you so sew really closely to the teeth.



Section 3: Knowledge

Steps to make your pencil case.
Tick these off as you complete them…

1. Gather Your Materials
Fabric: You'll need two different types of fabric: one for the **outside** (exterior) and one for the **lining** (inside).
Zipper: A 30cm nylon-coil zipper is standard.
Tools: Sewing machine (with a **zipper foot**), fabric scissors, pins or clips, a ruler, and an iron.

2. Prepare the Fabric
Cut **four rectangles** that are approx 30cm x 20cm (A4).. You need two from your exterior fabric and two from your lining.

3. Layer the First Side (The Sandwich)
Lay one **lining piece** flat on the table, right-side up.
Place the **zipper** on top of the lining, right-side up, aligning the top long edge.
Place one **exterior piece** on top, **right-side down**. The zipper is now "sandwiched" between the two fabrics.
Pin all three layers together along that top long edge.

4. Sew the First Side
Using a **zipper foot**, sew along the pinned edge.
Pro Tip: When you get near the zipper pull, stop with the needle down, lift the presser foot, and slide the pull out of the way before continuing.
Once finished, fold the fabrics away from the zipper.
5. Repeat for the Other Side

6. Final Assembly
Crucial Step: Unzip the zipper at least **halfway**. If you forget this, you won't be able to turn the case right-side out later.
Fold the fabric so the **two exterior pieces** are touching (right sides together) and the **two lining pieces** are touching.
Pin all the way around the outside edges.
Sew around the edges with a 1.5cm seam allowance, but **leave a 10cm gap** at the bottom of the lining.

7. Turning and Finishing
Reach through the gap in the lining and pull the whole case **right-side out**.
Use a blunt object like a ruler to gently push out the corners.
Sew the small gap in the lining shut with a **straight stitch** or a hand-sewn ladder stitch.
Tuck the lining into the case and you are finished!

Year 9 Rotation 2

D&T Product Design:- Systems

BELPER SCHOOL and Sixth Form Centre

Section 1: - Key Vocabulary

Tier 3 Vocabulary

Resistor	Electronic component designed to resist the flow of electricity by converting it into heat energy
Capacitor	Electronic component used to store and discharge a small amount of electricity
Integrated Circuit	Collection of electronic components combined together into a predesigned 'chip', often with a fix program
Microcontroller	An integrated circuit which can be 'programmed to react to input and output variables
Voltage Regulator	Collection of transistors designed to create a 'stable' voltage supply
Flowchart	A changeable program which can be stored on a microcontroller

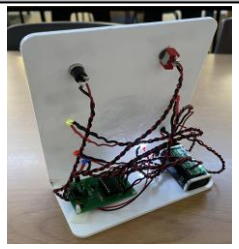
Tier 2 Vocabulary

Soldering	The process of using a metal with a low melting point to fix two other metal wires permanently together
LED	Electronic component designed to emit light when electricity is passed thought it in the correct direction
Wire Strippers	Hand held tool used to remove the protective plastic cover of f the end of wire
Side Cutters	Handheld tool used to cut metal wire to length
CAD	Computer Aided Design – Software used to design a product
Laser Cutter	Machine which is controlled by a computer and using high energy light to cut and engrave wood and plastic

Section 2: Skills

Soldering	Being able to solder 'of board' components to 'fly wires' Being able to solder 'on board' components to a PCB Be able to solder an integrated circuit to a PCB Soldered joints should be neat, use the correct amount of solder, they should be shiny to avoid 'dry joints'
Follow chart programming	Use electronic CAD software to design a flowchart program which be controlled, and control multiple inputs and outputs Use electronic CAD software to design a flowchart program which be controlled, and control inputs and outputs
2D design software	Use CAD software create a themed design, considering suitable and secure location of the PCB, power, and the inputs & outputs
Application of laser cutting	Understand the set up requirement needed to laser cut and engrave materials, including the use of colour to define cut type, and power/speed setting requirements for different materials
Product Assembly	Create a high quality, fully functioning, electronic product from a collection of parts. Including the use of glues and fixing techniques
Health and Safety	Consistently use a wide range of tools and equipment safety, always using the correct PPE

Section 4:- WAGOLL



Section 3:- New Knowledge

Specification Writing

- Understand the need for a product specification.
- Apply the use of ACCESSFM to write a multipoint, justified product specification

Flowchart Programming

Be able to use flowchart programming (coding) to control the inputs and outputs of a simulated and real circuit, using the following common flowchart commands

Start – Beginning the flowchart program

Decision - Detect a digital input (on/off) signal to make a YES/NO decision

Output – Turn on or off one or more outputs when commanded to

Wait – Make the program wait for a fixed time until moving onto the next command

Stop – End the flowchart program

CAD

- Use CAD to create and modify an outline shape
- Use CAD to Contour bitmaps in to line drawings which can be laser engraved
- Apply the use of the following CAD software functions

Line between 2 points

Arc

Line between many points

Contour

Zoom in/out

Undo/Redo

Year 9 Spring 2

PSHE: Health & Wellbeing

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 2 vocabulary	Definition
Coping strategies	Healthy ways to manage emotions, thoughts, and behaviours in response to stress, anxiety, depression, or difficult life events
Wellbeing	The state of your being or self
Consequences	The negative impact which are a direct result of a person's actions
Substances	Something that is taken which alters the body or brain in some way
Gambling	Take risky action in the hope of a desired result
Risks	The possibility of something bad or unpleasant happening, and the potential consequences of that happening
Strategies	Behavioural and cognitive techniques used to manage stressful situations
Resilience	the capacity to withstand or to recover quickly from difficulties
Safe Sex	The act of sex with the removed risk of either pregnancy or contracting an STI. See definition for STI below

Tier 3 vocabulary	Definition
FGM	Short for female genital mutilation. Prevalent in some cultures, comprises all procedures that involve partial or total removal of the external female genitalia
Self-examination	Physical checks a person can perform to check their own body for risks
Contraception	The use of medicines, devices, or surgery to prevent pregnancy
STI	Short for sexually transmitted infection. A disease which is transmitted though sex or sexual acts

Section 2: Key Themes:

Supporting our wellbeing: Understand our mental health, how to build resilience and some strategies to help us manage our mental health. To be able to recognise signs of poor mental health in others.

Substances & the associated risks: Revisiting our knowledge of legal & illegal substances and personal risks and wider consequences of these.

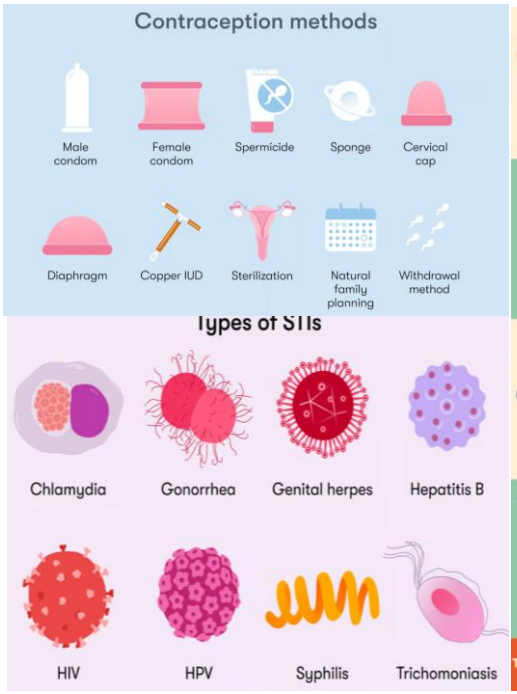
Checking our body: The importance of looking after our body in several ways and how we can check ourselves for early signs. The introduction of the topic of FGM.

Gambling: The different types of gambling, the risks associated, and some strategies used to manage gambling addictions.

The impact of resilience on our future: The impact of resilience on our future life, including relationships, achievements and employment. Strategies to build resilience and combat negativity.

Contraception & STIs: The different forms of contraception and how they work including protection against STIs. Specific STI's, their symptoms and treatments.

Section 3: Key concepts:



Oracy

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Register	A variety of language determined by formality, vocabulary, pronunciation and syntax.
Turn taking	The coordinated way participants alternate speaking roles, ensuring that one person speaks while others listen, and then the speaking role transitions to someone else
Articulate	The ability to express oneself clearly and effectively, or to pronounce words clearly.
Rhetoric	The art of using language effectively, especially in persuasive speaking or writing.

Tier 2 vocabulary	Definition
Instigate	Present an idea or open up a new line of enquiry
Probe	Dig deeper, ask for evidence or justification of ideas
Challenge	Disagree or present an alternative argument
Clarify	Asking questions to make things clearer and check your understanding
Summarise	Identify and recap the main ideas
Build	Develop, add to or elaborate on an idea

Section 2: The 4 Strands of Oracy You Will Cover

Physical

This is how you use your voice and body Language to communicate and can include the pace or tempo of how you talk, the tone of voice, voice projection, posture, facial expression and eye contact.

Linguistic

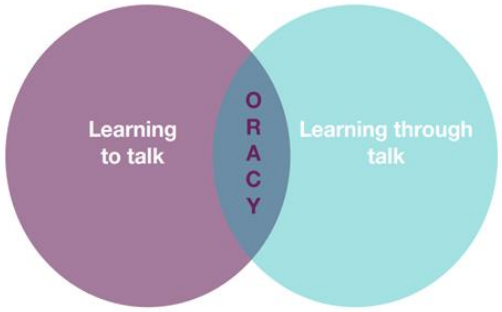
This how you use appropriate vocabulary choices, register, grammar, and rhetorical techniques such as questions and humour.

Cognitive

This is about the choice of content you select to present meaning to an audience. It is about how you structure and organise your talk to engage your audience. Added to that it is seeking clarification through questioning, while maintaining focus and managing time.

Social and Emotional

This is about working with others, guiding or managing interactions through turn-taking. It is about listening actively and responding appropriately. Added to that it is about confidence in speaking, self assurance and being aware of what your audience may or may not know.



Section 3: Student agreement for oracy

In order for all students to get the most from oracy lessons and activities we should always:

- Be respectful at all times
- Be supportive of others
- Consider how what you say may impact others around you
- If you disagree, make sure you do so with respect
- Actively listen
- Observe the rules of turn taking
- Be curious
- Be confident to have your opinion heard

Types of talk

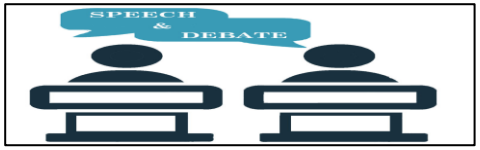
Exploratory talk

A type of talk where participants critically and constructively engage with each other's ideas, often involving questioning and reasoning.

Presentational talk

Includes speeches, presentations, and other forms of one-way communication.

Debate Talk



A structured discussion with opposing viewpoints, aiming to persuade an audience or reach a conclusion.

Instructional Talk

Used to teach or explain something, often involving a teacher or expert imparting knowledge or skills.

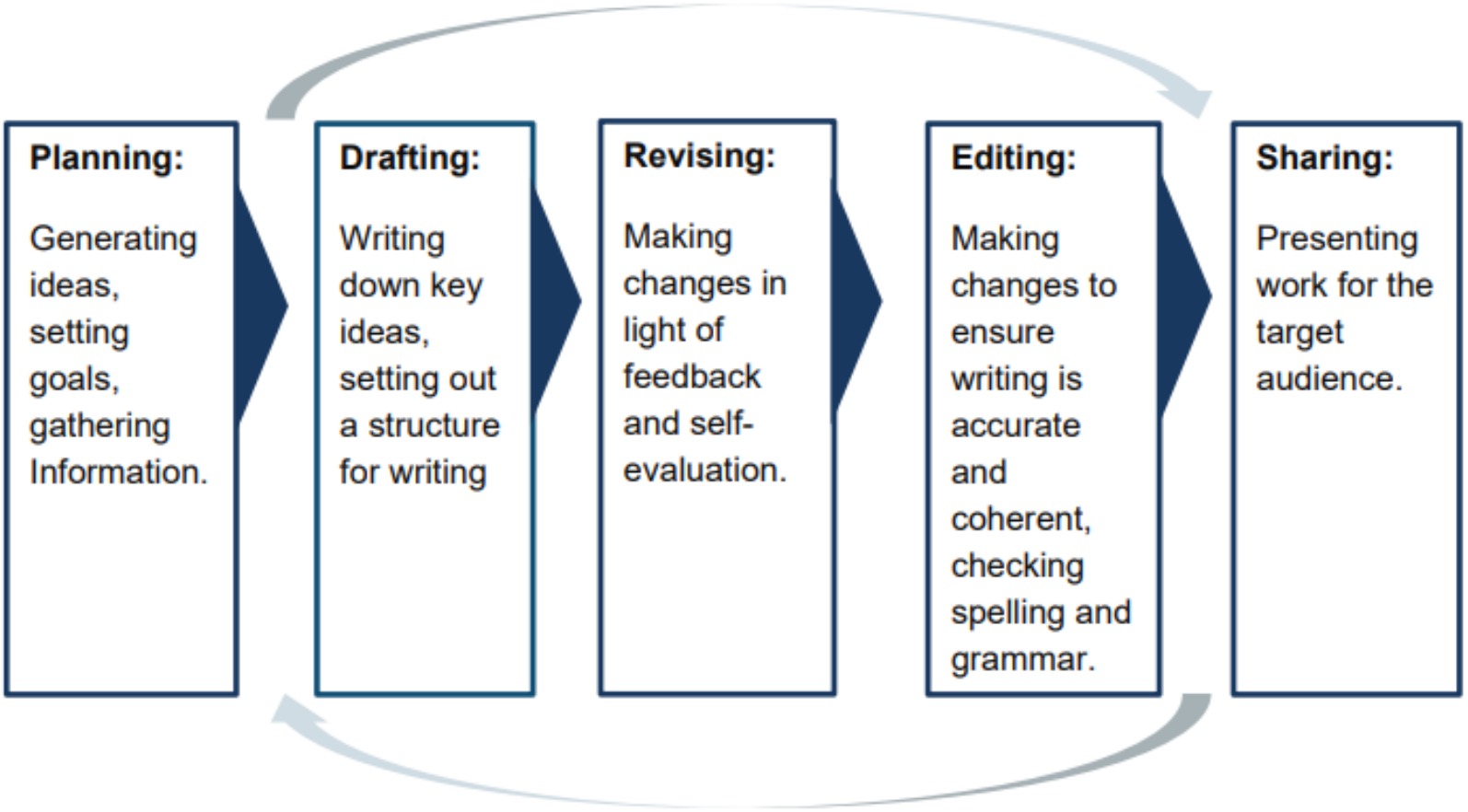
Oracy

Section 3: Talking Roles You Will Take:	
Instigator	
	The person who starts the discussion might say: 'I would like to start by saying… 'I think the first thing we should consider is…' 'To begin with let's talk about…'
Builder	
	The person who build or develops, adds to or runs with an idea might say: 'I agree and I would like to add…' 'Linking to your point I would suggest…' 'Building on that idea…'
Challenger	
	The person who disagrees or presents an alternative argument might say: 'That is true but have you considered…' 'I respect your viewpoint but what about…' 'I hear what you are saying but …'
Clarifier	
	The person who clarifies makes things clearer and simplifies ideas by asking questions might say: 'What do you mean when you say…' 'Could you tell me more about that…' 'Does that mean that…'
Prober	
	This person digs deeper into the argument, asks for evidence or justification of ideas might say: 'What evidence do you have to support that?' 'How does that support your argument?' 'How did you come to that conclusion?'
Summariser	
	This person presents reflections on the discussion and may offer a conclusion or balanced assessment of the main point and may say: ''Overall, the main points covered were…' 'In summary…' 'To round up what has been discussed…'

The Writing Process

When we don't take the time to plan, revise, or edit, our writing can suffer—just like rushing a recipe without reading the instructions. But when we follow the writing process, it helps us:

Think more clearly **Organise our thoughts** **Spot mistakes** **Write with purpose**



Strong writing doesn't happen by accident—it comes from thinking, crafting, and shaping your ideas over time. **Writing is thinking made visible.** The more we follow the process, the more confident and skilled we become.

Extra-Curricular Clubs - Lunch

Monday	Tuesday	Wednesday	Thursday	Friday
Book club with Sarah (library)	Drama club with Sarah (drama studio)	Art club with Lucy (art area)	Technical Theatre club with Sarah (drama studio)	Year 7-11 Girls Indoor Sports Club with Leanne
Year 7 Music club with Phil (music rooms)	Knitting and crochet club with Emma (S9)	Belper Wind Band with Anna (music rooms)	Wellbeing club with Sophie (English area)	
Warhammer and Tabletop Games Hobby club with Richard (art area)	Modern Foreign Languages club with Sarah (L5)	Anti-bullying Ambassadors (week 1) with John	Wellbeing Ambassadors (week 1) with Sophie (English area)	
	Chess with Dan (M2)	Student Leadership Group (week 2) with John	Year 7 & 8 Games club with Emma (library)	
	Year 10 Inter-tutor football competition with James and Matt (3G)	Year 10/11 Badminton Club with Tom	Belper Choir with Anna (music rooms)	
	Year 7 Creative Writing Club with Tamara and Liv (E8)	Model Railway Club with Phill (T2)	Year 7 Inter-tutor football competition with James and Matt (3G)	
		Textiles Club with Sarah (T1)		

BE INVOLVED

Extra-Curricular Clubs – After School

Monday	Tuesday	Wednesday	Thursday	Friday
Show rehearsals with Anna & Sarah (stage and main hall)	KS4 & 5 Art with Lucy (art area)	Show rehearsals with Anna & Sarah (stage and main hall)		Year 10-13/Staff Friday Sports Club with Matt, James, Tom and Leanne
Music Club with Phil (music rooms)	Year 13 A-level Revision with Tom	Film Club with Becky (for students in Yr8 or above) (E6)		
Year 7, 8 & 9 Football club with Matt, James and Tom	STEM Club for Year 7 and 8 (S8) with Year 11	Pride Club with Karen (T5)		
AVSSP Events Year 9,10 & 12 Sports Leaders Events with Rebecca		Year 9 'Your Time' Leadership Programme with Rebecca and Matt		
Robot Club with Sarah (T1)		GCSE PE Practical Club with Tom – Week 1 only.		
GCSE PE Drop-in with Leanne (P6) Week 1 only.		GCSE PE Revision Club with Tom – Week 2 only.		

BE INVOLVED

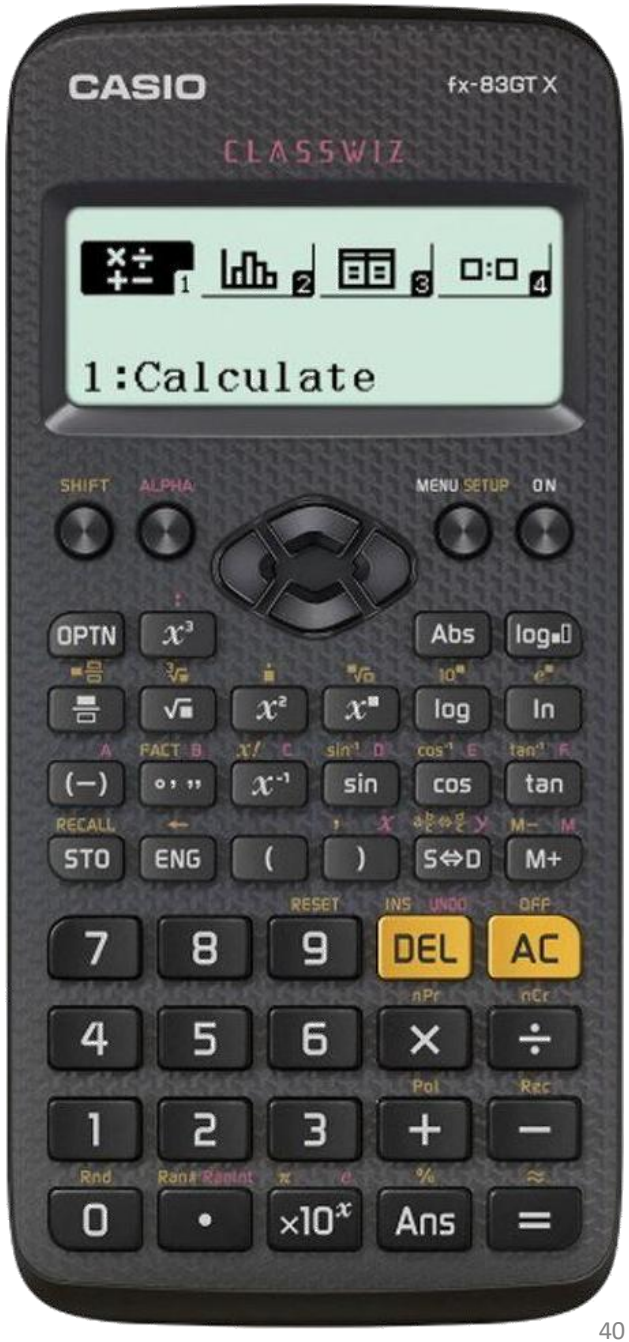
2 Black/Blue Pens and 1 Coloured Pen

2 Pencils

Eraser

Pencil Sharpener

Scientific Calculator



Knowledge Organiser

Ruler