Knowledge Organiser

Year 9 Summer 1 2025

Create Your Future

"Keep smashing it - Be strong, be brave, be confident"

Jodie Ounsley – 'Fury'

Professional Exeter Chiefs Rugby Player, and new Gladiator. A former England Women's Rugby Seven's player, Brazilian Jiu Jitsu British Champion, she won the title of Deaf Sports Personality of The Year in 2020.

BELPER SCHOOL and Sixth Form Centre

Name:

Tutor Group:

BELPER SCHOOL and Sixth Form Centre

Contents Page

Science, PE, Art 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	4	5
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					

Week 2	1	2	3	4	5
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

Guided Reading Tracker

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
Term: Summer 1

English: Science Fiction

BELPER SCHOOL and Sixth Form Centre

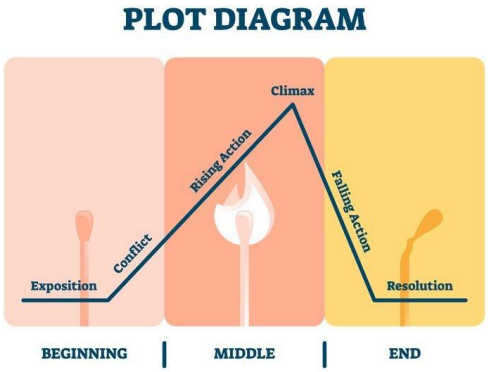
Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Non-Linear	A story told using a non-chronological structure
Analepsis	A literary device in narrative, in which a past event is narrated at a point later than its chronological place in a story. Also known as a flashback
Narrative perspective	The point of view a writer uses when telling a story
Enigma	A person or thing that is mysterious or difficult to understand
In Media Res	In the middle of a story / action
Exposition	A literary device in which the author tells readers what is happening
Syndetic listing	A list connected with conjunctions
Holophrastic	A single word sentence, such as 'Believe!'

Tier 2 vocabulary	Definition
Ambiguous	Something that is unclear or uncertain
Structure	How something has been shaped or put together
Explore	Consider, think about and justify your ideas
Context	The background, individual, social and historical, that we bring to a text
Analyse	Focus in depth on how something is done and explain why with justification

Section 2: New Key Skills/Strategies

Plot can be talked about in a number of different ways. This diagram shows one of the most common structures for a story.



Possible Structure Questions

- Why has the writer focussed your attention on this at the start?
- How does the writer end the piece of writing?
- How does the writer create tension?

Writing about structure

When writing about structure, think about it like making a sandwich. I might like a sandwich with ham, mustard and lettuce in it. I might decide to put my bread first, then mustard, then ham, then lettuce and then bread on top of that. That's a conventional sandwich.
Now imagine I started with my mustard, and put that on the outside of my sandwich – why would I do that?
Writing about structure is the same kind of thing… why has the writer decided to start with the middle of their story rather than conventional beginning?

Sentence Starters

- I think the writer has chosen to start in the middle of the action because…
- I think the writer ended the story on a cliff-hanger because…
- Perhaps the author used a non-linear structure to…

Section 3: Genre Background

The Science Fiction genre grew out of the advancement of science and development in areas of astronomy, physics and maths. It is a genre that sparks the imagination and unknown frontiers feature heavily which tie to the genre's notions of discovery and exploration. It is a blend of modern scientific interests and fantasy where anything is possible.
Famous examples of science fiction include: War of the Worlds by H. G. Wells; A Journey to the Centre of the Earth. by Jules Verne and Nineteen Eighty-Four by George Orwell. Science fiction tends to look forward, imagining new technologies, worlds and creatures, or exploring the impact that these may have.

Possible Discussion Questions

- Why do you think science fiction remains such a popular genre?
- Why do you think science fiction is so often linked with horror?

Reading for Context

Science Fiction writers often use made up or complex vocabulary to help them set an alien scene. This can make it hard to read, so you often need to use **context clues** in order to work out what words might mean.

1. Word Parts
Break down the different parts of a word—base word (word stem or root word), prefixes, and suffixes—to figure out what it means.
2. Definition/explanation
Look for a definition or an explanation within the sentence.
3. Synonym
Words next to the unknown word can be a clue that there is a synonym.
4. Example
Providing examples of the unknown word can give readers a clue to meaning.
5. Antonym/contrast
Opposite information about the unknown word can be offset by words and phrases such as unlike, as opposed to, different from.
6. Analogy
Comparisons of the word help to determine what it means.

Year 9 Summer 1

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

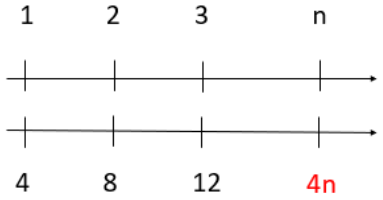
Tier 2 vocabulary	Definition
Sequence	A particular order in which related objects follow each other
Term	An individual number in a sequence, such as "6 is the 2nd term in the sequence 1,6,11,16"
Square number	The product of a number multiplied by itself
Cube number	The product of a number multiplied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

Revision QR codes

term to term rule | Nth term | Special sequences | Position to term

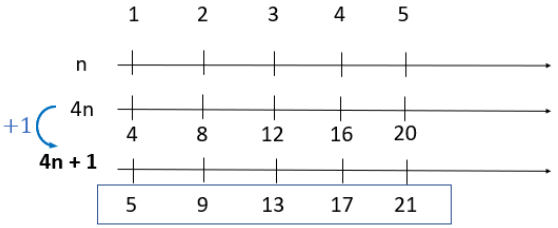
Section 2: Representations

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.

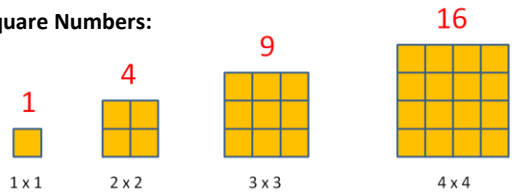
We can move from the 4 times table by adding or subtracting, to generate a different sequence that also moves by 4 each time:



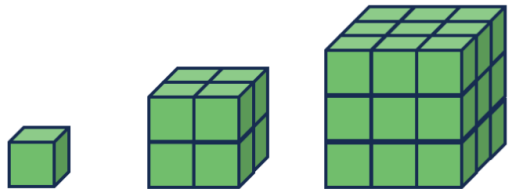
From the rule '4n + 1' we can find any term in the sequence.

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

Square Numbers:



Cube Numbers:

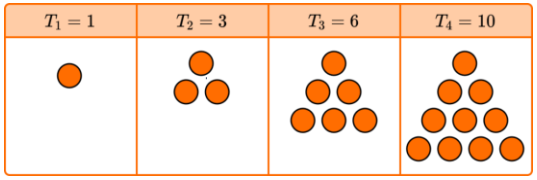


1 cubed
1 x 1 x 1 = 1

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.

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

Maths: Indices & Standard Form

Year 9 Summer 1

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Exponent	Another word for **power** or **index.** The exponent in the number 3^8 is 8.
Base	The number 3^8 has a base number 3
Equivalent	Two expressions that have the same value but are written in different forms. These are all equivalent ways of writing 530 53 x 10 = 5.3 x 100 = 5300 x 10^{-1}

Tier 2 vocabulary	Definition
Decimal point	The position in a number that separates the whole number part from the decimal part
Integer	This refers to a whole number which could be either positive or negative. Zero is an integer.
Index (plural is indices)	An index is a word commonly used for a power. For example, in the number 10^5, 5 is the index
Power of 10	For example, 1000 is a power of 10 as it can be written as 10^3. In the same way, 10^2, 10^{10} and 10^{-3} are all powers of 10.
Standard Form	A number written in a specific way that uses a power of 10. The number has to look like A x 10^n where $1 \leq A < 10$ and n is an integer
Ordinary Form	A number written in the usual way. For example, 530 or 12.917 or 23000, etc

Revision QR codes

Laws of indices | Using a calculator | Standard form

Section 2: New knowledge

Know and be able to apply the laws of indices

$$a^m \times a^n = a^{m+n}$$
$$a^m \div a^n = a^{m-n}$$
$$(a^m)^n = a^{m \times n}$$

Examples

$7^3 \times 7^2 = 7^5$

$8^{12} \div 8^3 = 8^9$

$(4^3)^5 = 4^{15}$

Important note:
Anything to the power of 0 is 1
For example $10^0 = 1$ and $8^0 = 1$

Know how to write a number in 'standard form'
A number in standard form has to look like A x 10^n where $1 \leq A < 10$ and n is an integer

Ordinary numbers bigger than 10

$$1280 = 1.28 \times 1000 = 1.28 \times 10^3$$

Most students think about how the decimal point moves to make the number between 1 and 10.

Example: 156000

156000. = 1.56 x 10^5

Move decimal point 5 places left, exponent goes up by 5

Ordinary numbers between 0 and 1

$$0.091 = 9.1 \times \frac{1}{100} = 9.1 \times 10^{-2}$$

This time, the decimal point has to move the other way

Example: 0.0000053

0.0000053 = 5.3 x 10^{-6}

Move decimal point 6 places right, exponent goes down by 6

Section 3: Calculating with standard form

Use of a calculator
All calculators have a standard form button but it could look like any of these. Ask your teacher if you are unsure.

To type 3.6×10^4, press 3.6, then the standard form button, then 4. You can use this to do calculations involving standard form.

Example $(4 \times 10^7) \div (5 \times 10^2)$

The safest way is to use brackets on your calculator or use the fraction button

Check that you get the answer 8×10^4

Without a calculator

Adding/subtracting by converting to ordinary form

$$(4.2 \times 10^3) + (5.3 \times 10^4) = 4200 + 53000 = 57200$$

Now convert this answer back into standard form

$$\mathbf{57200 = 5.72 \times 10^4}$$

Multiplying/dividing using the laws of indices

$$(4 \times 10^7) \div (5 \times 10^2) = (4 \div 5) \times (10^7 \div 10^2)$$
$$= 0.8 \times 10^5$$

Note the first number is not now between 1 and 10, so I make the first number 10 times bigger which means I have to subtract 1 from the exponent of 10

$$\mathbf{0.8 \times 10^5 = 8 \times 10^4}$$

Year 9 – Summer 1

Biology Topic 5 – Health and Disease

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Communicable Disease	Disease caused by pathogens which can be passed from person to person
Non-communicable Disease	Disease which cannot be passed from person to person. Is caused by a problem in the body.
Cardiovascular Disease	Disease affecting the heart and circulatory system, can high blood pressure, heart attack and strokes
Pathogen	A microorganism that can cause disease eg virus, bacteria and protist
Vector	An organism that carries disease from one person to another
Lysozyme	An enzyme which breaks down bacteria, part of the bodies chemical defense.
Antigens	Protein markers on the surface of any cell
Antibodies	Proteins released from lymphocytes which destroy or inactivate a pathogen

Tier 2 vocabulary	Definition
Health	A state of complete physical , social and mental well-being
Disease	An illness that prevents the body from working properly
Vaccine	Contains a weakened or inactive pathogen or bits of the antigen.
Immunisation	Artificial immunity triggered by a vaccine

Section 2: Types of Disease

Communicable Diseases

Disease	Pathogen	Symptoms
Cholera	Bacteria	
AIDS		Destroys White Blood cells
Malaria	Protist	
Chalara Dieback		Lesions on branches, dead leaves at top
Tuberculosis (TB)	Bacteria	
Stomach Ulcers		Stomach pain, weight loss, sickness
Ebola	Virus	

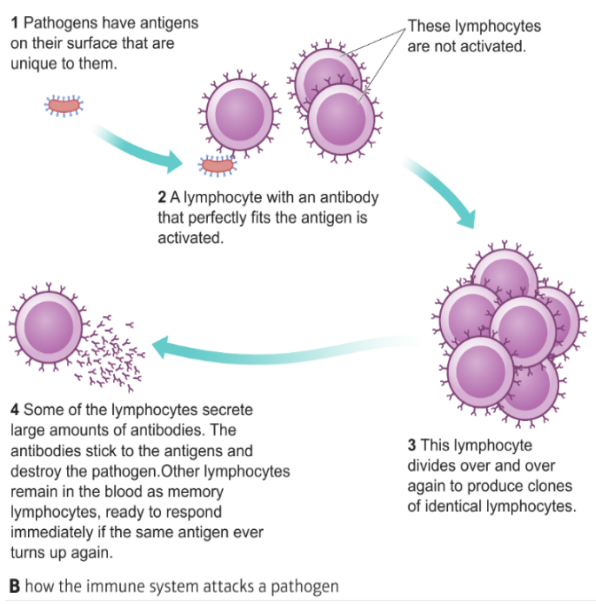
Non-Communicable Diseases

Caused by many different factors;

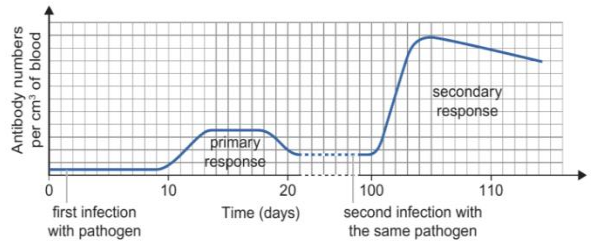
Genetic Disorder - Eg Sickle Cell Anaemia, Cystic Fibrosis
Malnutrition - Eg Scurvy (lack of vit C) or Anaemia (lack of Iron)
Lifestyle;
Alcohol - causes Liver Cirrhosis
Smoking - causes cardiovascular disease
Obesity - causes cardiovascular disease

Body Mass Index
BMI = Mass / Height^2

Section 3:



B how the immune system attacks a pathogen



C The immune responses to the first and second infection by a pathogen are different.

Vaccination Task

A vaccine contains a weakened or inactive pathogen or bits of an antigen which will create a safe immune response.

Draw a flow diagram, using the information in the graph above, to explain what happens in the body when you are vaccinated against a pathogen and then at a later date you catch the real pathogen.

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

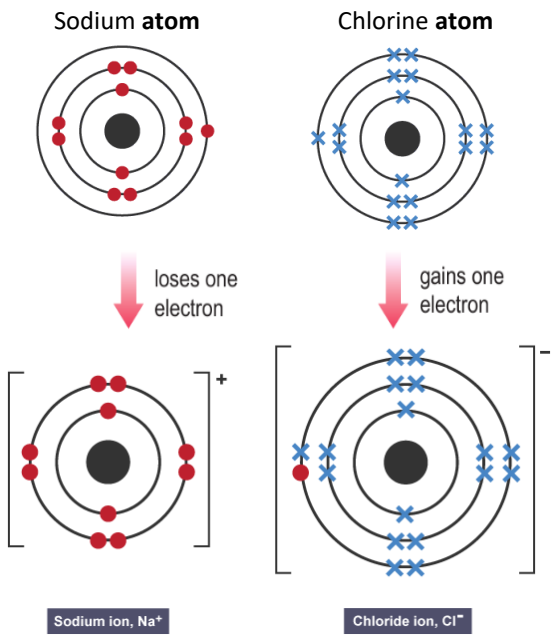
Section 2: Ionic bonding

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.

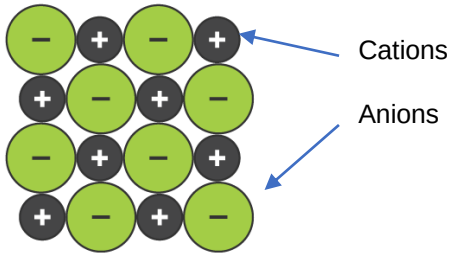
Non-metal ions are negative because they have gained electrons and contain more negative electrons than positive protons

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

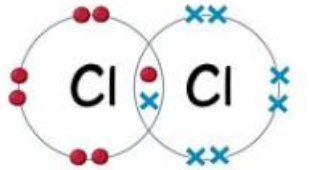
Molten or dissolved

- **Do** conduct electricity
- Because **ions can** move

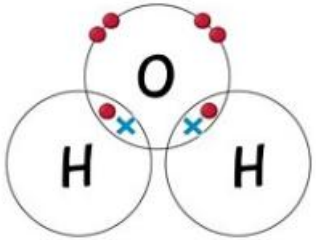
Chemistry – Covalent Bonding

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Molecular	Substance containing groups of non-metal atoms held together by covalent bonds.
Covalent bond	Shared pair(s) of electrons.
Single bond	One shred pair of electrons.
Double bond	Two shared pairs of electrons.
Molecular formula	A formula listing the atoms in the molecule e.g. CH_4
Structural formula	A formula which uses lines to represent the bonds and show how they are attached.
Valency	The number of electrons in the outer shell
Simple covalent	Substances made from a small number of atoms joined together (less than 100 atoms)



chlorine



Water

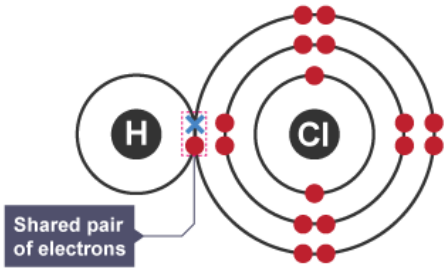
Section 2: Simple Covalent Substances

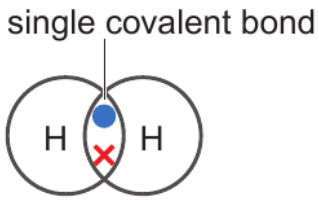
Melting point

- **Low** melting points
- only **weak intermolecular** forces are broken when they me
- this only takes a **small amount of energy**

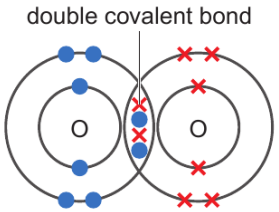
Electrical Conductivity

- Do **NOT conduct electricity**
- There are **no electrons** which can **move**

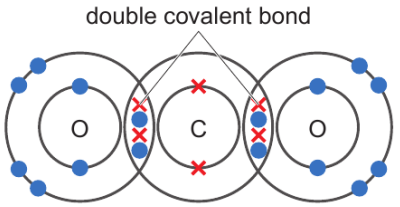




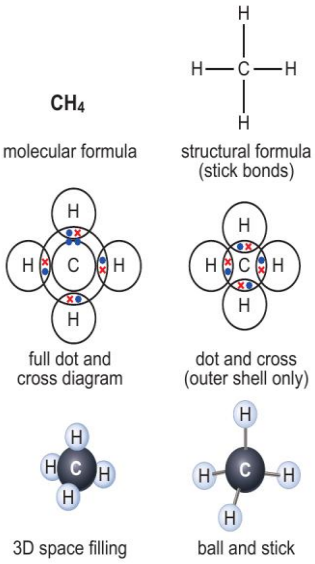
a hydrogen



c oxygen



d carbon dioxide



Different ways of representing molecules

Diagram type	Advantages	Disadvantages
Molecular formula	Shows which atoms it contains	No information about the bonds or shape of molecule.
Structural formula	Shows how atoms are bonded	No information about the shape or size.
Dot and cross diagram	Shows the arrangement of the electrons	Does not show the shape or size.
Space filling diagram	Shows the size and shape	Does not show the electrons.

Year 9 Summer 1

Physics: Motions & Forces (Newton's Laws)

BELPER SCHOOL and Sixth Form Centre

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 matter that there is in an object. 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.

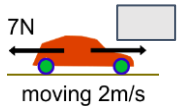
Section 2: New Knowledge/Skills

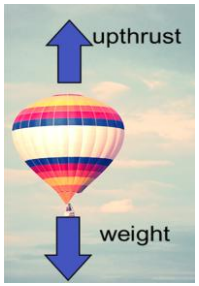
Newton's laws of motion

1st Law

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

- Be stationary
- Or moving at a constant velocity





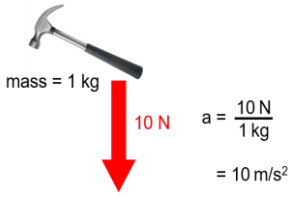
What is the missing force of Thrust the car is producing?

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;

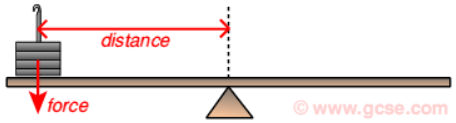
Force = mass x acceleration



Moments

The turned force on an object

Moment= force x perpendicular distance from pivot

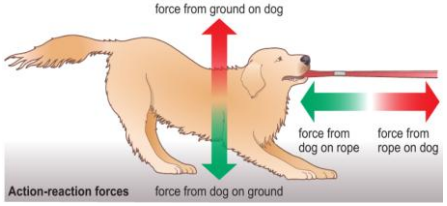


Section 3: Other subject specific things

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; Measured in N

- 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.

Density

Density is the amount of mass in a certain volume and can be calculated by;

Density (kg/m^3) = $\frac{\text{Mass (Kg)}}{\text{Volume } (m^3)}$

V_{box} = length × width × height

V_{box} = l × w × h

Volume of irregular shapes can Be measured using a Eureka beaker

Year 9 Summer 1

Geography: Africa

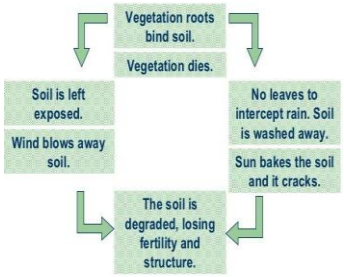
BELPER SCHOOL and Sixth Form Centre

Tier 3 vocabulary	Definition
Biome	Large scale ecosystems eg. tropical rainforests, deserts.
Climate	Long term atmospheric conditions in an area. The expected weather.
Continent	One of the Earth's seven divisions of land. See the map opposite.
Desertification	The process of land turning into a desert, as the quality of soil becomes worse over time.
Development	How the wealth and quality of life of people varies from place to place and changes over time.
Diversity	A wide range of things eg. people's lifestyles and cultures, plants and animals.
Ecosystem	The living and non-living parts of an environment and how they are connected.
Fair trade	A system that makes sure farmers and other workers receive a better price for the product they are producing.
Multinational company	A business operating in more than one country.
Resource	A material that is of use to humans.
Tourism	The business connected with people's travel for pleasure.

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.

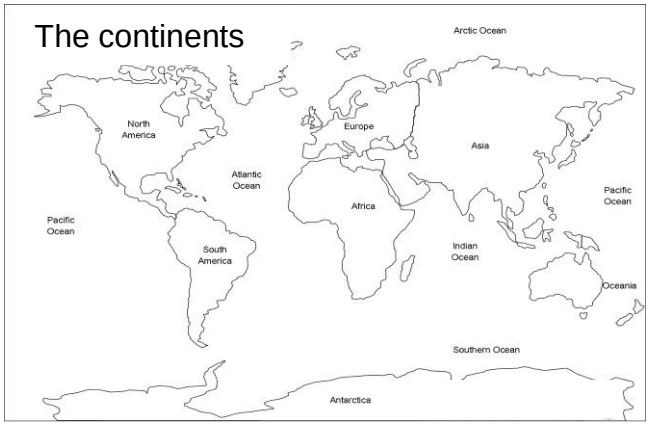
Section 2: New Knowledge

The causes of desertification



Measures of development

- Gross National Income (GNI)
- Life expectancy
- Education
- Human Development Index (HDI)
- Number of doctors per 1000 people



Section 3: Geographical Skills

When describing a graph, your writing should include the following things:

1. Give the general trend / pattern eg. up or down.
2. Add figures from the graph eg. the highest value is…, the lowest number is…, the range of values is….
3. Mention other obvious features eg. anomalies (data that does not fit the general pattern).

History: 9/11 and Conflict in the Holy Land

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Aryan	People who settled in northern Europe thousands of years ago. Nazis believed they were the 'master race'
Antisemitism	Being hostile or prejudice to Jews
Holocaust	Usually used to describe the murder of millions of Jews by the Nazis
Concentration Camps	Places where large numbers of people were kept as prisoners under armed guard.
Death camp	Killing centres established by the Nazis
Einsatzgruppen	Special units that conducted mass shootings of Jews
Holy Land	Land on the eastern edge of the Mediterranean around Jerusalem
Militia	An army or some other fighting organization of non-professional or part-time soldiers

Tier 2 vocabulary	Definition
Prejudice	An unfair opinion or judgement or feelings towards someone
Palestine	Country belonging to Palestinian Arabs in the Holy Land
Israel	Jewish state in the Holy Land
Terrorism	The use of violence to achieve political aims.

Section 2: Unit Summaries

1. What were the causes of 9/11?

On the 11th of September 2001, al-Qaeda carried out four coordinated terrorist attacks against the United States of America. These attacks have become known as 9/11. In this unit, we will be looking at both the long term and short term causes for this attack.

Tasks:
1. What questions do you have about this picture?

Second order concept = Cause and Consequence

2. How did conflict in the Holy Land develop?

From the 14th Century to 1919 the Holy Land was part of the Ottoman Empire, ruled from Istanbul in modern Turkey. People from all 3 Abrahamic faiths lived there, although the majority were Muslim.

From the mid 19th century onwards Jewish people began fleeing persecution in Europe and migrating to the Holy Land. The numbers of people migrating increased following pogroms in Russia after 1890.

During World War I The Ottoman Empire fought with Austria-Hungary and Germany. During the war the British made 3 promises about the Holy Land. The promised the Sharif of Mecca (in the Hussein McMahon letters) that if there was an Arab revolt against Ottoman rule, after the war Arabs would be free of colonial rule. Then the government promised Jewish people to grant a Jewish homeland in the Holy Land (the Balfour Declaration). Secretly however the British planned to divide the Holy land between themselves and the French, which is what happened.

After World War 1 the British controlled the Holy Land through a mandate. Jewish migration increased significantly after the Nazi Party gained power in Germany, and there were several Arab revolts against British rule and levels of migration.

After World War II levels of violence increased with militia formed from both Arab and Jewish communities. Britain was targeted in attacks, including one on their military headquarters (King David Hotel) faced international condemnation when it sent a ship of concentration camp survivors back to Germany. Control over the Holy land was handed over to the United Nations.

The United Nations (UN) decided to partition the Holy Land, and in April 1948 the new state of Israel was declared by the United Nations. Neither side was happy with the outcome.

Immediately after the State of Israel was declared, 5 Arab neighbours invaded. Israel won this war, captured a lot more land in order to reduce the length of her borders and make Israel easier to defend. At least 750, 000 Palestinians fled their homes during this war and have never been able to return.

In 1967 it appeared that Israel was about to be invaded again, and so launched a pre-emptive strike. This war lasted only 6 days, and Israel took much more Palestinian land. The UN told Israel to return this land, but she has not done so.

In 1973 Israel was invaded on Yom Kippur (the holiest day of the Jewish calendar). Israel was almost defeated in this war, but was helped by America. In order to stop this help OPEC countries increased the price of oil until America and Russia put pressure on all sides to end the conflict

The most successful peace negotiations to date were held in Oslo in 1993. Some aspects of this agreement have held (such as a Palestinian authority) but others have not (Palestinian refugees remain in refugee camps and Israel still holds Palestinian land captured in 1948 and 1967.

Year 9

World views: Is Death the End?

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary	
Tier 3 vocabulary	**Definition**
Life	The existence of an individual human being or animal.
Purpose	A person's sense of resolve or determination. Or: The reason for which something is done or created or for which something exists.
Death	The action or fact of dying or being killed; the end of the life of a person or organism.
Hedonist	A person who believes that the pursuit of pleasure is the most important thing in life; a pleasure-seeker.
Euthanasia	The painless killing of a patient suffering from an incurable and painful disease or in an irreversible coma.
Abortion	The deliberate termination of a human pregnancy
Sanctity of Life	Human life is holy, precious and sacred.

Section 2: Sources of Authority
John 5:24-25
John 5:28-29
John 14:1-7
Corinthians 15:51-576
Revelations 21:1-4

Section 2: New Knowledge/Skills

Key Questions:
What do people believe about life?

What do people believe about the afterlife?

What is the sanctity of life?

What is abortion?

What is euthanasia?

Has medicine gone too far?

Why do we have funerals?

What do Buddhists believe about life and death?

Does death matter to Humanists?

Is this life hell?

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 mothers life is in danger. Other Christians say it is a moral evil because every life is a gift from God.

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.

Christianity
Christians are generally against Euthansia - "Do not commit murder" but some argue "the most loving action"

Section 3: Assessment Essay Question:

Assessment Essay Question:

Is Death the End?

In answering the question - you should consider:

- A range of beliefs regarding the possibility of life after death.
- Consider where these beliefs come from?
- the importance of this life compared to the hope of an afterlife. (Remembering to consider different views).
- The impact of differing views of life after death on how individuals view earthly life.
- Similarities and differences between Humanists and Christian funeral services.
- Similarities and differences between Buddhist, Christian and Humanists on the purposes of life.

Skills checklist –
As you write your essay check that you have included…
Knowledge – facts and religious or non-religious beliefs,

Impact of belief – how it affects what people think and do,

Specialist terms,

Sources of authority – where people get their ideas/beliefs from – quotations,
Judgement – how strong, valid or sound the argument is,

Opinion – at least 2 different points of view

Year 9 Summer 1

French: Quand j'étais petit(e)…

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary/Questions

Tier 2 vocabulary	Definition
Imperfect tense	used to say 'used to' do something or to describe something in the past, 'was, were'.
Comparative	used to compare two or more things
Adjectival agreement	Adjectives 'agree' with the subject in gender and number
Intensifiers	An adverb or adverbial phrase that strengthen the meaning of an adjective
Direct object pronouns	Him/her/it/them - used to replace a noun

Questions	Translation
1. Où vas-tu normalement le weekend ? **Qu'est-ce que tu fais ?** **C'est comment et pourquoi ?**	Where do you usually go at the weekend What do you do? What is it like?
2. Où es-tu allée le weekend dernier ? **Qu'est-ce que tu as fait ?** **C'était comment ?**	Where did you go last weekend? What did you do? What was it like?
3. **Où vas-tu aller le weekend prochain ?** **Qu'est-ce que tu vas faire ?** **Ça va être comment et pourquoi ?**	Where will you go next weekend? What will you do? What will it be like?
4. Qu'est-ce que tu faisais quand tu étais petit(e) ?	What did you used to do when you were young?
5. Qu'est-ce que tu regardais/écoutais/aimais/préférais…?	What did you used to watch/listen to /like/Iprefer….?
6. C'était comment ? **Pourquoi ?**	What was it like? Why?
7. Comment tu trouvais….?	How did you find…?

Section 2: Grammar

The imperfect tense

Use:

It is used to say '**used to'** do something

e.g. Je **jouais** avec mes amis = I **used to** play with my friends

or to **describe** something in the past

e.g. Mon prof **était** gentil = My teacher **was** kind

Formation:

Take the -ons of the nous form in the present tense and add these endings:

Nous portons	**portons ➔ port-**
je port**ais** tu port**ais** il/elle/on port**ait** nous port**ions** vous port**iez** ils/elles port**aient**	I used to wear you used to wear he/she/we used to wear we used to wear you used to wear they used to wear

Comparative

Use the comparative to compare two or more things:

plus + adjective (+que…)	**more**... (than…)
moins + adjective (+que…)	**less**... (than…)

The adjective must agree with the first noun mentioned

★ **Ma prof** de science est **plus** sérieu**se** que mon instituteur

Direct object pronouns

You use a direct object pronoun (him/her/it/them) to replace a noun. It goes **in front of** the verb.

masculine	**feminine**	**plural**
Je **le** trouve…	Je **la** trouve…	Je **les** trouve…
(I find **him/it…**)	(I find **her/it**…)	(I find **them**…)

★ Abbreviate **le** and **la** to **l'** before a vowel sound.

Je l'aime (I like him/her/it)

Je l'adore (I love him/her/it)

Section 3: WAGOLL

J'adore la musique! Mon chanteur préféré s'appelle Stromae. Sa musique est inspirante. J'adore les paroles et la mélodie de sa musique. Je les trouve originales. J'aime toutes sortes de musique mais j'écoute souvent du hip-hop. Ça me donne envie de danser.et je le trouve hyper cool! Pour écouter de la musique, j'utilise Spotify. Je ne joue pas d'un instrument en ce moment cependant je vais essayer de jouer de la clarinette â l'avenir.

Il y a cinq ans, je jouais du piano mais c'était trop difficile. J'étais assez paresseuse! À l'âge de dix ans, je faisais du judo tous les lundis après l'école mais je ne l'aimais pas beaucoup. Je préférais aller à l'école plus que faire du judo. Quand j'étais plus jeune, j'étais très travailleuse. Mon école primaire était de taille moyenne. Il y avait trois cents élèves. Mon instituteur était sympa et drôle. J'adorais lire et mon prof était moins sérieux que mes profs au collège. Je l'aimais beaucoup!

Je suis née à Bergerac, j'habitais à Bordeaux avec ma famille. Maintenant j'habite à Limoges. Je l'apprécie vraiment car j'adore la région. À l'avenir, je veux devenir professeur car à mon avis c'est un métier varié.

À savoir:

Question words are an extremely important part of learning a language because they allow us to expand our knowledge about the things happening around us. Can you recall the French for…

How? How many? Who? What?	When? Which? Why?

Les chanteurs francophones du passé


Édith Piaf


Johnny Hallyday


Jacques Brel


Mireille Mathieu

Les chanteurs francophones du présent


Louane


Maître Gims


Vidéo Club


Angèle

Listen to some of these musicians. Which songs do you like?

Can you find any other Francophone singers/groups you like?

FRENCH Y9 Word list Summer 1.A	
Tu étais comment?	what were you like?
Quand j'étais petit(e)...	when I was little...
j'avais...	I used to have...
les cheveux frisés	curly hair
j'étais	I was/ used to be
je n'étais pas	I wasn't/ didn't used to be
sage	wise/ well-behaved
méchant(e)	mean/ nasty
timide	shy
mignon(ne)	cute

FRENCH Y9 Word list Summer 1.B	
je portais	I used to wear
j'allais	I used to go
je jouais	I used to play
je faisais	I used to do/make
je lisais	I used to read
j'aimais	I used to like
je n'aimais pas	I didn't used to like
Je préfère	I prefer
Je préférais	I used to prefer
je préférerais	I would prefer

FRENCH Y9 Word list Summer 1.C	
laid(e)	ugly
moche	ugly
(ma matière) préféré(e)	(my favourite) subject
le bâtiment	building
vieux	old (ms)
vieille	old (fs)
moderne	modern
de taille moyenne	average size
il y avait	there was/ were
il n'y avait pas de/d'	There wasn't/ weren't

FRENCH Y9 Word list Summer 1.D	
il était...	he/it was
elle était...	She/it was
j'étudiais	I used to study
j'adorais	I used to love
je détestais	I used to hate
je portais	I used to wear
patient/impatient	patient/impatient
plus + adjective que	more...than
moins + adjective que	less...than
aussi + adjective que	as... as

FRENCH Y9 Word list Summer 1.E	
autrefois	in the old days
maintenant	now
il y a (cinq ans)	(5 years) ago
on achète	we buy
on achetait	we used to buy
on écoute	we listen
on écoutait	we used to listen
on utilise	we use
on utilisait	we used to use
jeune	young

FRENCH Y9 Word list Summer 1.F	
les jeunes	young people
à cause de	due to
grâce à	thanks to
quitter	to leave/leaving
on a quitté	we left
la guerre	war
la pauvreté	poverty
la famine	famine
la persécution	persecution
j'habitais	I used to live

REVISION: Scan the QR code below to access the word lists on Quizlet!
This QR code links to all the French Y9 Quizlet sets.

Phonics: **ai**	
J'ai	J'étais
Je lisais	J'aimais

Phonics: **eu** v. **ou**	
deux	joue
peu	beaucoup

Phonics: **liaison**	
mes amis	deux heures
aux États-Unis	nous allons
très intéressant	vous allez

Phonics: **ê** & **è**	
très	fête
collège	tête

Year 9 Summer 1

German: Die Kindheit

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary/Questions

Tier 2 vocabulary	Definition
Modal Verb	A verb that expresses necessity or possibility. It needs an infinitive at the end of the clause
Imperfect tense	In German this is usually used to talk about the past in reports, articles and novels
Subordinate clause	A clause, introduced by a subordinating conjunction, which also needs a main clause to make sense. e.g. *als ich klein war, …*
WO2/Inversion	The verb is the second idea in the German sentence, regardless of whether you start with the subject or something else. e.g. Mit 5 Jahren konnte ich…
Comparative	An adjective used to compare
Superlative	An adjective used to say something is 'the most…'

Question	Translation
Was hattest du, als du klein warst?	What did you have when you were small?
Was konntest du mit fünf Jahren machen?	What were you able to do at 5 years old?
Was durftest du in der Grundschule nicht machen?	What were you not allowed to do at primary school?
Wie war es in der Grundschule?	How was it at primary school?
Wie ist die Sekundarschule?	How is secondary school?
Würdest du gern eine Uniform tragen?	Would you like to wear a uniform?

Section 2: Grammar

Imperfect Modals: modals are always used with the infinitive

ich konnte…
I was able to…

e.g. Ich konnte mit vier Jahren **lesen**.
*I was able **to read** at 4 years old.*

ich musste…
I had to…

e.g. Ich musste um 20 Uhr ins Bett **gehen**.
*I had **to go** to bed at 8pm.*

ich durfte…
I was allowed to…

e.g. Ich durfte keine Schokolade **essen**.
*I was not allowed **to eat** chocolate.*

ich wollte…
I wanted to…

e.g. Ich wollte Schauspielerin **werden**.
*I wanted **to become** an actress.*

Imperfect Tense:
The imperfect tense is used for the past ('said', 'went', etc.) in German, usually when telling stories/writing reports

For regular verbs (e.g. *sagen*), take *-en* off the infinitive to give the stem and add these endings:

ich sag**te**	wir sag**ten**
du sag**test**	ihr sag**tet**
er/sie/es sag**te**	Sie/sie sag**ten**

This is the same pattern for imperfect modal verbs!

Irregular verbs (e.g. *gehen*) usually have a vowel change in the stem and add these endings:

ich ging	wir ging**en**
du ging**st**	ihr ging**t**
er/sie/es ging	Sie/sie ging**en**

Other common irregular verbs:
ich hatte, ich war, ich sah, ich kam, ich sprang, ich aß, es gab

Section 3: WAGOLL

Als ich klein war, hatte ich ein rotes Holzauto. Es war das beste Spielzeug! Mit fünf Jahren konnte ich lesen, aber ich konnte erst schwimmen, als ich neun war.

In der Grundschule durfte ich nicht alleine zur Schule gehen. Das fand ich total ungerecht, weil ich dachte, ich war sehr selbstständig. Die Klassenzimmer in der Grundschule waren bunter und die Lehrer*innen waren freundlicher als in der Sekundarschule, aber wir mussten in einem Klassenzimmer bleiben und das war echt langweilig.

In der Sekundarschule sind die Lehrer*innen strenger (mein Mathelehrer ist der Strengste) und es gibt zu viele Hausaufgaben (Meine Deutschlehrerin ist die Schlimmste mit Hausaufgaben!)

Ich würde gern eine Uniform tragen, weil das schicker ist. Ich würde eine schwarze Hose und eine gestreifte Krawatte tragen.

Gut zu wissen!

als
als can be used as a conjunction meaning 'when' if used to indicate when something happened in the past. It is a **subordinating conjunction** (like weil) and sends the verb to the end of the clause.

***als** ich jung war* - when I was young
***als** mein Bruder geboren ist* - when my brother was born

Superlative
Add 'ste' to the end and an umlaut to a one-syllable adjective when using the superlative

die/der Größte - the biggest
die/der Strengste - the strictest
die/der Freundlichste - the friendliest
die/der Kälteste - the coldest

Kulturzone!
Many of the fairy tales we're familiar with are translated from the German. The brothers Grimm wrote Rapunzel, Hansel and Gretel, Cinderella, Sleeping Beauty, Snow White and many more. The original stories didn't always have the happy endings that we know today!

GERMAN Y9 Word list Summer 1.A		
	die Kindheit	childhood
	als ich sieben war	when I was 7
	als ich jünger war	when I was younger
	Mit neun Jahren	At 9 years old
	das Kleidungsstück	the piece of clothing
	die Mütze	the hat
	die Puppe	the doll
	die Geschichte	history/the story
	trotzdem	nevertheless
	verstecken	(to) hide

GERMAN Y9 Word list Summer 1.B		
	Mit welchem Alter?	At which age?
	konntest du?	Could you/were you able to?
	ich konnte	I could/was able to
	sie konnte	she could/was able to
	wir konnten	we could/were able to
	lächeln	(to) smile
	zählen	(to) count
	ich durfte	I was allowed to
	ich durfte nicht	I was not allowed to
	ich musste	I had to

GERMAN Y9 Word list Summer 1.C		
	wechseln	(to) change
	die Grundschule	Primary school
	Schüler*innen	pupils
	der/die Älteste	the oldest (one)
	der/die Größte	the biggest/tallest (one)
	der/die Frechste	the cheekiest (one)
	ungepflegt	scruffy
	das Lieblingsspielzeug	the favourite toy
	geweint	cried
	zufrieden	satisfied/happy

GERMAN Y9 Word list Summer 1.D		
	es war einmal	once upon a time
	der Junge	the boy
	das Mädchen	the girl
	das Märchen	the fairy tale
	das Wald	the forest
	König*in	King/Queen
	aß	ate
	ging	went
	sagte	said
	sah	saw/watched

GERMAN Y9 Word list Summer 1.E		
	traurig	sad
	er wollte	he wanted
	der Feind	the enemy
	böse	evil, bad
	dauern	(to) last (time)
	die Küche	the kitchen
	tief	deep
	der Turm	the tower
	als Kind	as a child
	beschreiben	(to) describe

REVISION: Scan the QR code above to access the word lists on Quizlet! This QR code links to all the German Year 9 QUIZLET sets.

Phonics: **ch** (soft)	
ni**ch**t	Mil**ch**
abwas**ch**en	Tei**ch**
Chef	modis**ch**
i**ch**	s**ch**le**ch**t

Phonics: **ch** (hard)	
no**ch**	a**ch**t
jedo**ch**	**Ch**or
au**ch**	Bu**ch**
se**ch**s	geda**ch**t

Year 9 Summer 1

Computing: Binary and Computer Logic

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Binary	A number system that only uses two digits: 1 and 0. The binary system is known as a 'base 2'.
Denary	A number system that uses ten digits: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 and 0. Also known as 'base 10'.
Logic Gate	Computers use logic gates to carry out operations.
Boolean	Each logic gate represents a Boolean operation - AND, OR and NOT.
Not Gate	Takes a single input and gives a single output. The output value is always the opposite value to the input.
And Gate	Takes 2 inputs and gives 1 output, If both inputs are 1, the output is 1, otherwise the output is 0.
Or Gate	Takes 2 inputs and gives 1 output. If 1 or more outputs are 1, then the output is 1, otherwise the output is 0.
Truth Table	Each logic gate has its own truth table. They show all possible combinations of 1s and 0s and their corresponding outputs.
Logic circuits	Logic gates can be combined to make logic circuits - Their outputs are found using logic tables.
ASCII	The most commonly used character set for English speakers. It uses 7 bit binary codes meaning it can represent 128 characters.
unicode	Uses up to 32 bits to represent some characters so it covers all major languages.
Bitmap image	An image made up of a series of coloured dots called pixels. Their files are large as every pixel is saved.
Vector image	An image made up of a set of lines and shapes. They are small as only the information needed to draw the shapes is saved (position, colour, size)
1-bit image	Images made up of two colours 0 for one colour and 1 for the other colour.
2-bit image	Images made up of four colours each colour represented by 00, 01, 10 or 11.

Section 2: New Knowledge

Computers only process binary data using 0s and 1s but we can convert binary into decimal numbers. In denary the place values from right to left increase by the powers of 10 (1000, 100, 10, 1). In binary the place values from right to left increase by the powers of 2. (8, 4, 2, 1)

0 = 0000	4 = 0100	8 = 1000	12 - 1100
1 = 0001	5 = 0101	9 = 1001	13 - 1101
2 = 0010	6 = 0110	10 = 1010	14 - 1110
3 = 0011	7 = 0111	11 = 1011	15 - 1111

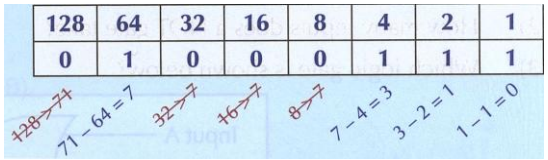
Convert Binary to Denary

Draw a table with binary place values in the top row and the binary number in the bottom row. Write down the powers of 2 that have 1 in their column. Add these values together to get the decimal number. **64 + 4 + 2 + 1 = 71**

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

Convert Decimal to Binary

Draw a table with 8 columns and put the powers of 2 in the top row. 71 is the running total you subtract numbers from. Starting on the left, if the top row value is less than or equal to the running total then subtract it from the running total. Put a 1 in any column where you subtracted from the running total. Read the binary number off the bottom row of the table.



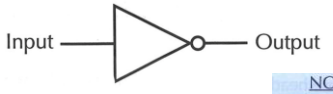
Tier 2 vocabulary	Definition
Resolution	The number of pixels within a fixed area. The higher the resolution, the better quality the image.
Compression	Makes file sizes smaller
Lossy	Lossy compression removes data.
Lossless	Lossless compression removes data from the file but restores the data when recovered.

Section 3: Useful Subject Information

Computers use logic gates to carry out operations. Each logic gate represents a Boolean operation - AND, NOT and OR. A gate takes binary data and then outputs the result of the operation.

It can help to think of 1s as TRUE and 0s as FALSE.
There are three main types of logic gate:

NOT gate



NOT truth table

Input	Output
0	1
1	0

AND gate

AND truth table

Input A	Input B	Output
0	0	0
0	1	0
1	0	0
1	1	1

OR Gate

OR truth table

Input A	Input B	Output
0	0	0
0	1	1
1	0	1
1	1	1

Logic Gates can be combined to create logic circuits.

Adding binary numbers:

0 + 0 = 0
1 + 0 = 1
1 + 1 = 1 carry none (or 10)
1 + 1 + 1 = 1 carry one (or 11)

PE: Tennis

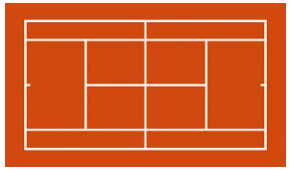
Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Volley	Playing the ball before it bounces when you are close to the net.
Half-volley	Playing the ball low down just after it has bounced.
Service	Starting the rally with a shot from behind the baseline.
Service box	The box near the net where the service needs to land.
Baseline	The line at the back of the court.
Tramlines	The lines down the side of the court used for singles and doubles.
Drive	Hitting the ball hard and low across the net.
Lob	Hitting the ball over your opponent if they are close to the net.
Drop-shot	Hitting the ball softly over the net when your opponent is at the back of the court.

Section 2: New Knowledge/Skills

In tennis you will improve your range of shots and start to use some basic tactics to try to outwit your opponent. You will start to use the proper scoring system and play games on a full size court.

On the court below, can you recognise the following lines?
baseline - service box - service line - tramlines
singles sideline - doubles sideline - centre service line



Scoring in Tennis:
Which of these numbers are used?

10 15 20 30 35 40 45 50

PE: Striking and Fielding

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Half- rounder	How many ways can you think of that will lead to half a rounder being scored?
No-ball	When the ball does not arrive at the batter between knee height and the top of the head, on the hitting side of the body.
Run-out	When the field touch the post or the stumps with the ball before the batter arrives.
Obstruction	In rounders, when a fielder gets in the way of the batter.
Forward defensive	The most important shot in cricket to help prevent the ball hitting the stumps.
Drive	The most important attacking shot in cricket - hitting the ball along the floor.
Grip	To throw or bowl the ball in rounders and cricket, use a two fingers grip.
Overarm throw	An important skill for fielders to return the ball to the wicketkeeper/base fielders.
Long barrier	Getting down on one knee to make a barrier to stop the ball

Section 2: New Knowledge/Skills

In striking and fielding activities, you will continue working on rounders, cricket and softball, particularly developing your understanding of the rules and of some of the important techniques.

What are the key points of technique shown in the pictures below?

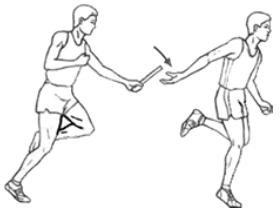
PE: Track

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Sprint start	A crouched position giving a sprinter the best chance of a fast start.
Staggered start	For events, which go round curves on the track, different start positions are needed.
Lap time	Comparing an athlete's time for each lap they complete.
Split time	An athlete's time at a certain point in a race.
Changeover box	A 20m section marked out on the track inside which the baton must be exchanged.
Down sweep	The quickest way to carry out a baton pass by placing the baton down into the outgoing runner's hand.
Incoming/ outgoing runner	The two runners involved in a relay changeover are the incoming and the out-going runners.
Sprint technique	Paying attention to what each part of the body is doing to maximise speed.
Stride pattern	Taking a set number of strides between each hurdle.

Section 2: New Knowledge/Skills

This year you will continue to experience a range of track events, trying to improve your performance in each.



Can you describe some of the key points for the sprint start and the down-sweep baton hand-over?

PE: Field (Jumping)

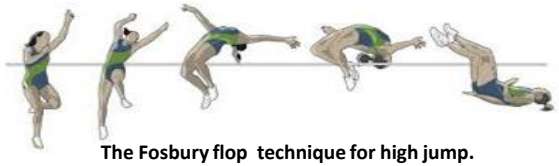
Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Straddle technique	An alternative technique to the scissors using the foot nearer to the bar to take-off.
Fosbury flop	The most advanced high jump technique involving a backwards dive over the bar.
Hang technique	A basic long jump technique where the back is arched and the hands are up during flight.
Acceleration	Speeding up to maximum during the run-up is essential in long jump and triple jump.
Leg shoot	Pushing the legs out in front when landing in long jump to maximise the distance jumped.
No-jump	The phrase used when the jumper breaks a rule and the jump doesn't count.

Section 2: New Knowledge/Skills

In jumping activities, you will explore techniques to increase your jumping performances. Examples include:

The 'hang' technique for long jump.



The Fosbury flop technique for high jump.

PE: Field (Throwing)

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Approach	A run-up or footwork routine to get extra power into the throwing action.
Side-step	A simple technique for the shot-put approach.
Glide	A more advanced approach for the shot-put using a backwards hop.
3 step approach	The basic javelin approach needs to be limited to L…R,L for a right hander and R…L,R for a left hander.
Angle of release	In throwing events, approximately 45 degrees is required to allow the implement to fly furthest.
Speed at release	The thrower must try to produce maximum speed of the arm to release the implement.
Trajectory	The flight path of the implement which will be determined by the angle of release.
No-throw	The phrase used when the thrower breaks the rules, most commonly by overstepping the line.

Section 2: New Knowledge/Skills

We will continue to develop our throwing technique in shot, discus and javelin, including adding an approach.

Which important points of technique can you recognise in these pictures?

PE: Running

New knowledge/Skills

You will continue to develop your **endurance** in running this year with further **target setting** to help you towards achieving a **personal best** in your timed runs.

We will look at how we can use **lap times** and **split times** to help break down a performance and help us to achieve a target.

We will consider some of the **mental** aspects of running which can be used to **motivate** ourselves and therefore improve performance, for example, **positive self-talk**.

PE: Health and Fitness

New knowledge/Skills

Through the various activities in Year 8 we will consider the **effects of exercise** on the body and the science behind them, including:

- Redness of the skin
- Changes to our breathing
- Increased heart rate
- Sweating

We will link these effects to the importance of the **warm-up** and we will introduce the idea of having a **cool down** after an intense exercise session.

PE: Leadership

New knowledge/Skills

To develop our leadership abilities in Year 9, you will be challenged to use your PE knowledge at times to lead a warm-up or a skill practice for a group of classmates.

We will discuss and try to develop some of the key **personal qualities** which can help you become a good leader such as: **communication, initiative, responsibility, knowledge, reliability, confidence, body language**.

You may be ask to take on various leadership **roles** such as **coach, captain, referee, scorekeeper.**

Year 9 Summer 1

Art: 'We Also Served'

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary	
Tier 3 vocabulary	**Definition**
Émigré	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 combines 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 Summer 1

Drama: D.N.A A Script by Dennis Kelly

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Script	The format the lines are set out.
Stage Directions	The playwright has given us some suggestions as to what is happening on the stage. *Often these are in italic font.*
Improvisation	Actors create scenes with the characters that are "off script".The actors create their own lines. This helps actors to understand the characters and the play.
Volume/Pitch/ Tone/Pace/ Emphasis	These are all elements we can use when speaking lines. Varying each of these can alter the meaning of lines and their impact.

Tier 2 vocabulary	Definition
Significant moments	These are specific sections of script we pick to capture important ideas or chacteristics that should be emphasised in the play.
Thematic Strands	The playwright is using the play to explore and consider a selected number of ideas. These ideas will appear throughout the script. They become the themes that the performance presents for an audience to consider.
Sub-text	The lines that are spoken present the first layer of information we must understand. When performing we also have the sub text that we can understand through use of vocal expression and actions.

Section 2: New Knowledge

Title
The play is called 'D.N.A', this stands for Deoxyribonucleic Acid. This is the DNA Molecule that makes you unique, it identifies you. It makes you into you.

Playwright
Dennis Kelly, he also wrote the script for 'Matilda'.

Themes
Bullying - The most obvious character who is bullied is Adam which happens before the beginning of the play and seemingly has caused his death. However, it is worth considering who the main bullies are and what types e.g. verbal, mental and physical.
Gangs – Adam is desperate to be part of the gang. What are the others are prepared to do to stay in the gang?
Power – There are numerous power struggles within the play and it shifts throughout. It is Cathy that ultimately takes on the role as gang leader in the end, we should consider why?

Characters
Jan, Mark, Leah, Phil, Adam, John Tate, Lou, Danny, Brian, Cathy, Richard.

Plotline
Whilst bullying Adam the gang find themselves responsible for death of Adam. The gang goes about covering up this event under the guidance of their leader.

The play has a linear narrative. It follows the pattern of introduction, problem, crisis ,resolution. It also has a cyclical structure, starting in the same place it began.

Section 3: SKILLS

Vocal skills
Types of volume: Whisper, quiet, talking, loud, shouting. Types of Pitch: Low, medium, high Pause: Stillness in a scene or dialogue Pace: Speed of dialogue Tone: Emotionally influenced dialogue Emphasis: Putting importance on a word

Physical Skills
Gestures: Using movement to express emotion or direction Facial expressions: Used to show emotion Body language: Use to show the character profile/emotion Levels: Used to show status/hierarchy Gait: Character walk Eye contact: Between actors/audience Proxemics: Space between actors/audience

Performance Techniques
Cross-cutting: To show contrast on stage.
Freeze Frame: To highlight a key moment.
Narration: To give the audience information about the story Thought track: To give the audience information about a character
Direct address/aside: Speaking directly to the audience out of the scene
Multi-rolling: Playing more than one character

Production Design
Stage Shapes and set layout
Costume, make up and props
Sound, from background music to sound effects.
Lighting to create atmosphere and sense.

Year 9 Summer 1

Music: Mastering Performance – Keyboard Skills

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Treble Clef 	A musical symbol that indicates which notes are represented by the lines and spaces on the stave. The treble clef primarily notates musical notes above middle C.
Bass Clef 	A musical symbol that indicates which notes are represented by the lines and spaces on the stave. The bass clef primarily notates musical notes below middle C.
Chord	A harmonic set of pitches consisting of multiple notes played simultaneously. A **triad** is a chords that consists of three notes.
Beats	The unit division of musical time is called a beat.
Bars	In music theory, a bar (or measure) is a single unit of time containing a specific number of beats played at a particular tempo.
Time Signature	An indicate how many beats are in each measure/bar of a piece of music.

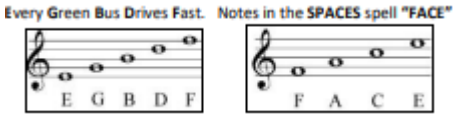
Tier 2 vocabulary	Definition
Harmony	Two or more sounds played simultaneously.
Melody	A combination of pitch and rhythm.
Notation	Written symbols used to represent the notes on the stave.
Fluency	The ability to play a melody or chord pattern with dexterity; moving between pitches without losing time.

Section 2: New Knowledge/Skills

A **STAVE** or **STAFF** is the name given to the five lines where musical notes are written. The position of notes on the stave or staff shows their PITCH (how high or low a note is).

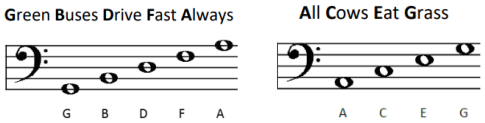
The **TREBLE CLEF** is a symbol used to show high-pitched notes on the stave and is usually used for the right hand on a piano or keyboard to play the MELODY and also used by high pitched instruments such as the flute and violin.

The stave or staff is made up of **5 LINES** and **4 SPACES**.



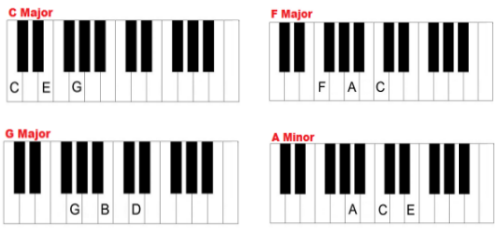
The **BASS CLEF** is a symbol used to show low-pitched notes on the stave and is usually used for the left hand on a piano or keyboard to play the BASS LINE and also used by low pitched instruments.

The stave or staff is made up of 5 LINES and 4 SPACES.

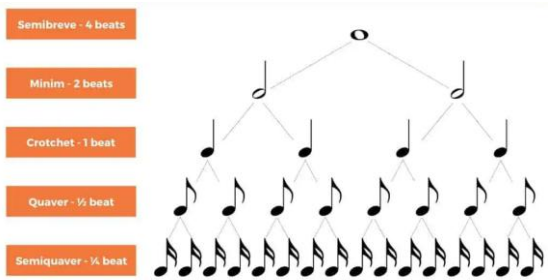


A **CHORD** is when two or more notes are played together simultaneously. A **TRIAD** is a chord that consists of three notes. The chord provides the accompaniment to the melody. They can be played in **ROOT**, **FIRST** or **SECOND** inversion.

- A chord with note **one** at the bottom is described as being in **root position**
- A chord with note **three** at the bottom is described as being in **1st inversion**
- A chord with note **five** at the bottom is described as being in **2nd inversion**



Section 3: Other/Previous Knowledge/Skills

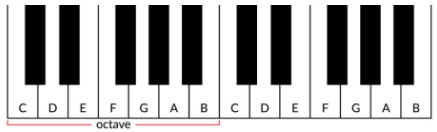


Useful Resources

Treble and Bass Clef Staves

Note Values

Finding Notes on the Keyboard



Links to prior learning *– Keyboard and rhythm work in Y7, The Four Chord Trick and Hooks and Riffs*

Year 9 Rotation 2 D&T FOOD: Booklet 2 Diet through life/ Special Dietary Needs

BELPER SCHOOL and Sixth Form Centre

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: Hats off!

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

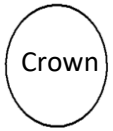
Tier 3 vocabulary	Definition
Top Stitching	A line of stitching that is decorative on the outside of a garment.
Stay Stitching	A row of stitching that helps to keep fabric in the correct shape. Stops it distorting or ripping.
Lining	A layer of different material covering the inside surface of something.
Interfacing	An extra layer of material that is applied to the facing of a garment to add support.
Crown	The top of a hat. Usually circular.
Brim	The part of the hat that sticks out at the bottom to provide shade whilst it is being worn.

Tier 2 vocabulary	Definition
Recycle	To convert waste into a useable material
Reuse	To use something more than once
Reduce	To make a smaller amount of waste
Refuse	Turning down the use of materials and processes that can harm the environment
Repair	Can the product be mended so that it have a longer life?
Rethink	Looking for alternatives to products that are less damaging to the environment

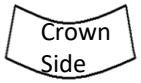
Section 2: Skills

Sewing Patterns

A sewing pattern is a set of shapes that have been DRAFTED to use as templates to cut fabric out. These shapes have been planned and tested to ensure that when you sew them together they will form the GARMENT you want to make!



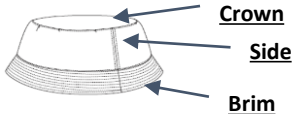
Sewing patterns are GRADED, this means that the templates are adjusted to fit different sizes of people. For example the hat you are making comes in a range of sizes SMALL, MEDIUM etc



The size of the hat you chose to make will be based on the circumference of your head.

Manufacturing Process for the Hat

1. Sew the BRIM to the CROWN SIDE, repeat 4 times
2. Match the outside hat sides together, right sides together
3. Repeat for the lining pieces.
4. Sew each together down the sides.
5. Stay stitch around the top of both hats.
6. Snip into the top of the hat at 1cm intervals. Make sure not to cut through the stay stitching. Repeat for both hats.
7. Pin the outside CROWN onto the top of the outside hat. Repeat for the lining of the hat.
8. Machine around the top of the hat for both the lining and outside.
9. Put the hats together RIGHT SIDES TOGETHER. Match up the edges and pin in place.
10. Sew around the brim, leaving a gap big enough for your hand to get in!
11. Turn the hat right sides out through the gap you left.
12. Top stitch around the edge of the brim, also sewing up the gap.



Section 3: Knowledge

Textiles and the Environment

Of all industries textiles is the second most pollutant. As designers and consumers we have a responsibility to be aware of the impact it has.

As designers we should consider the environment when picking the materials we will use to make our designs. For example considering using recycled materials, or sustainably produced fabrics.

FAST FASHION has led to a huge increase in the amount of textiles that end up in landfill. There is also the impact of the MANUFACTURE and CARE of the garments during their life. As consumers we have a responsibility to consider the impact our purchases have on the environment.

Some facts to consider:

*2,700l of water is needed to produce 1 t-shirt. This is equivalent to enough drinking water for one person for 2.5 years.

*10% of all greenhouse gases are produced by textile production.

*0.5million tonnes of MICROFIBRES are released into the oceans each year as a result of washing SYNTHETIC textiles.

The 6 R's

Whilst we are all quite familiar with the idea of recycling materials there actually 6 different 'R' words that we can use to consider our impact on the environment.
This is a list of 6 different guidelines that people can use to help them reduce their impact on the environment. These words can be applied by the designer when the they are creating new products or the consider who is looking to decide what to do with a ripped t-shirt!

REDUCE
RECYCLE
REFUSE
RETHINK
REUSE
REPAIR

This is the MOBIUS loop It is the recognised symbol of recycling.

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

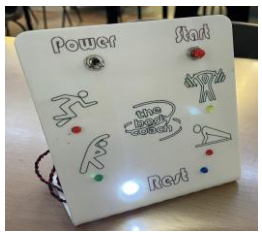
Tier 2 Vocabulary

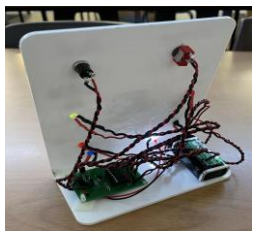
Soldering	The process of using a metal with a low melting point to fix two other metal wires permanently together
LED	Electronic component designed to emit light when electricity is passed thought it in the correct direction
Wire Strippers	Hand held tool used to remove the protective plastic cover of 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

Select — Line between 2 points

Circle — Arc

Shape — Line between many points

Contour

Zoom in/out

Undo/Redo

Year 9 Summer 1

PSHE: British Values

BELPER SCHOOL and Sixth Form Centre

Section 1: Key Vocabulary

Tier 2 vocabulary	Definition
Extremism	The holding of extreme political or religious views; fanaticism.
Judaism	The religion of the Jewish people. A monotheistic religion, believing in one god.
War	A state of armed conflict between different countries or different groups within a country
Conflict	A struggle or clash between opposing forces; battle. a state of opposition between ideas, interests, etc
Terrorism	Violence or the threat of violence against people or property to further a particular ideology
Conspiracies	A belief that some secret but influential organization is responsible for an event or phenomenon. A theory that is commonly reputed or rejected.
Fake News	False stories that appear to be news, spread on the internet or using other media, usually created to influence political views or as a joke

Tier 3 vocabulary	Definition
Antisemitism	Hostility to or prejudice against Jewish people
Zionism	A movement for (originally) the re-establishment and (now) the development and protection of a Jewish nation in what is now Israel.
Counter terrorism	Measures taken to combat or prevent terrorism
Persecution	Hostility and ill-treatment, especially on the basis of ethnicity, religion, or sexual orientation or political beliefs

Section 2: Key Themes:

Extremism & radicalisation: To learn and define terms such as; 'extremism', 'terrorism' and 'radicalisation', the different types of extremism, how extremist views can lead to acts of terrorism.

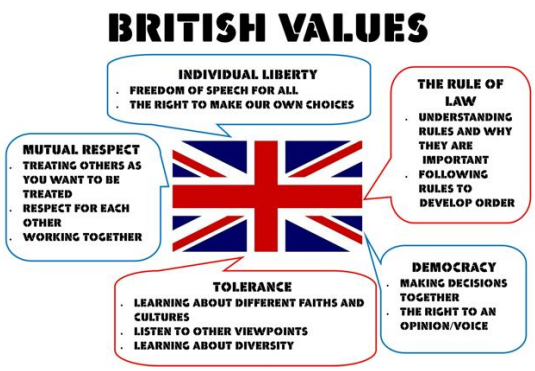
Antisemitism: To define the terms 'Zionism' and antisemitism', to explore why Jews have been persecuted through history, what is happening today in the UK in relation to antisemitism and what actions can be taken to fight against antisemitism.

War and conflict: To understand hat is meant by war and conflict and how these have started through out history, to look at current examples of war and conflict and understanding of why they happened and how they might be resolved.

Conspiracy theories: To understand what a conspiracy theory is and be able to give some examples, explore why conspiracy theories and extremist narratives are interlinked and consider why conspiracy theory can be damaging to society.

Terrorism & counter terrorism: To understand iceberg analogy, why people chose to commit acts of terrorism, how the UK has been affected by terrorism, how counter terrorism works and the best ways to combat extremism and terrorism.

Section 3: Key concepts:



Summer 1: Extra – Curricular Timetable

Monday	Tuesday	Wednesday	Thursday	Friday
Lunchtime Clubs: 12.20 – 1.00				
Football **Year 7** With James 3G **Table Tennis** **Year 10/11** With Tom GYM **Book Group** **Year 9** With Sarah Phillips Library **Art Club** **All Years** With Lucy A4 **Wargaming Hobby Painting Club** **All years** With Richard A3	**Duolingo Club** **All Years** With Sarah Knappett Languages Block **Badminton (week 1)** **Year 8/9** With Tom Sports Hall **Football** **Year 9/10** With James/Matt 3G **Ultimate Frisbee (week 2)** **Year 7/8/9** With James Sports Hall	**Technical Theatre Club** **All Years (max 10 students)** With Sarah Holme A7 **Football** **Year 11/12/13** With Matt and Tom 3G **Belper Band** **All Years** **Woodwind, Brass and Strings** With Anna MU1 **Handball** **Year 8/9** With Tom Sports Hall	**Digital Skills Drop In** **Yr10-13** With Jody A2 **Football** **All Years Girls** With Leanne Sports Hall/3G **Music Club** **All Years** With Phil MU2 **Knitting and Crochet Club** **All Years** With Emma T5 **Scalextric Racing/ Model Railways** **All Years (Max 15 students)** With Phill T1 **Foreign Language Spelling/ Translation Bee practice** **Years 7, 8, 9** With Sarah Knappett Languages Block **Belper Choir** **All Years** With Anna MU1	**Chess** **All Years** With Carlos M2 **Football** **Year 8** With Tom 3G **Games Club** **Years 7, 8** With Emma Library 12.20 – 1.00 **Multisports Club** **Year 7 (Yr10 Sports Leaders)** With Rebecca and Matt Sports Hall & Gym

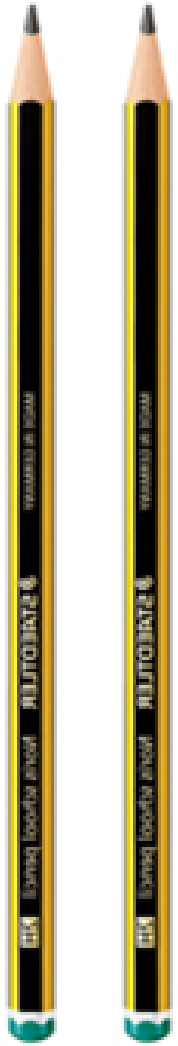
34

Summer 1: Extra – Curricular Timetable

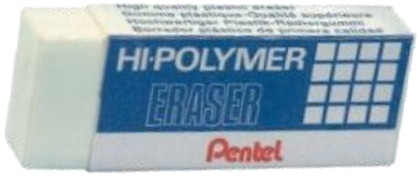
Monday	Tuesday	Wednesday	Thursday	Friday
After School Clubs				
Gardening **All Years** With Marc and Tony Rosie's Garden 3.05 – 4.00 **More Than Robots** **Years 8, 9, 10, 11** With Sarah Speight T1 3.05 – 4.00 **Music Producers Club** **Years 9, 10, 11** With Phil MU2/Recording Studio 3.05 – 4.00 **Football** **Year 8** With Tom Field 3.05 – 4.00 **Sports Leadership Events** **Year 9/10/12** with Rebecca, Matt & AVSSP 3.05-4.00	**Netball** **Years 7/8** With Rebecca Sports Hall 3.05 – 4.00	**Litter Picking** **All Years** With Marc P2 3.05 – 4.00 **Scalextric Racing/ Model Railways** **All Years (Max 15 students)** With Phill T1 3.05 – 4.00 **Circuit Training** **Year 7/8/9** With James Gym 3.05 – 4.00 **'Your Time' Leadership** **Year 9 Girls with Rebecca and Matt** **Sports Hall** 3.05-4.00 (week 1) **A level PE Revision** **Year 13 with Rebecca/Tom/Matt** 3.05-4.00 **Sports Studies/GCSE Sports Club** **Year 10/11** **With Tom** 3.05-4.00 (week 2)		**Friday Night Sports Club** **Year 10/11/12/13/staff** With Matt, Leanne, Tom & James 3G/Sports Hall

2 Black/Blue Pens and 1 Coloured Pen

2 Pencils



Eraser



Pencil Sharpener

Knowledge Organiser

Ruler

Scientific Calculator