Knowledge Organiser

Year 8 Autumn 2 2025







"I am proud to represent my country, and it shows that hard work pays off."

Kaleb Hemstock-Norris
Belper School Year 7 student 2025
Team GB Inline Skating Development Squad

Tutor Group:



Contents Page

Timetable	3
School Expectations	4
Attendance & Punctuality	5
Guided Reading Tracker	6
Subject: English	7
Subject: Maths	8
Subject: Science	10
Subject: Geography	13
Subject: History	14
Subject: World Views	15
Subject: French	16
Subject: German	18

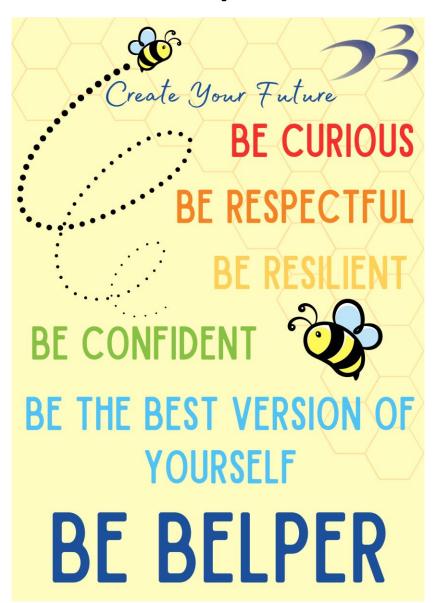
Subject: Computing	20
Subject: PE	21
Subject: Art	24
Subject: Music	27
Subject: Drama	28
Subject: D&T Food	29
Subject: D&T Textiles	30
Subject: D&T Product Design	31
Subject: PSHE	32
Subject: Oracy	33
Subject: Writing	35
Extra-curricular timetable	36
Equipment Check	38

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							
			L	L	<u> </u>	<u> </u>	
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.

Create Your Future

73

BE PRESENT BE PUNCTUAL

THERE ARE 17.5 NON-SCHOOL DAYS DURING THE YEAR TO SPEND ON FAMILY TIME, VISITS, HOLIDAYS, SHOPPING, HOUSEHOLD JOBS AND OTHER APPOINTMENTS

DAYS OFF SCHOOL ADD UP TO LOST LEARNING

BE BELPER

100%

OUR TARGET FOR ALL STUDENTS

97% 6 DAYS ABSENCE 30 HOURS LOST LEARNING

EXCELLENT
OR GOOD ATTENDANCE
BEST CHANCE OF
ACADEMIC SUCCESS

95%
10 DAYS ABSENCE
50 HOURS LOST LEARNING
WORRYING
AT RISK OF MAKING IT
HARDER
TO PROGRESS

90%
19 DAYS ABSENCE
95 HOURS LOST LEARNING
CONCERN
LESS CHANCE OF SUCCESS
AND SIGNIFICANTLY

REDUCES LEARNING

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

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.



English: Frankenstein - Playscript



Section 1: Key Vocabulary				
Tier 3 vocabulary	Definition			
Conscience	A person's moral sense of right and wrong			
Dehumanisation	Depriving a person of positive human qualities			
Gothic	A style of writing that is characterised by elements of fear, horror, death, and gloom			
Isolation	A feeling of loneliness and separation			
Monologue	A speech presented by a single character, most often to express their mental thoughts aloud			
Prejudice	Forming an opinion before becoming aware of the relevant facts			
Prologue	A separate introductory section of a literary, dramatic, or musical work			

Tier 2 vocabulary	Definition
Characterisation	The creation of characters through vivid description
Connotation	What a word makes you think of
Intention	The purpose behind something
Plot development	The evolution of narrative and character through different stages
Theme	An idea that reoccurs throughout the development of the plot

Section 2: New Key Skills/Strategies Strategy for approaching a question: Read the question R Underline the key words U Choose the best approach C Select any key information S Answer the question Α C Check your answer Strategy for answering a question: Start your answer with a CONNECTIVE connective e.g. Firstly, Secondly, Effectively, Successfully etc. Use the words from the question POINT to make your point Include a quote from the play to EVIDENCE support your point Zoom in on specific words in your Analysis quote and explain how they prove your point Consider the impact on the THINK audience and what the playwright was trying to achieve

Example questions:

- How does the playwright set the scene for the play using the prologue?
- How does the playwright present Frankenstein in act one of the play?
- How does the playwright present the main characters in their first moments with The Monster?
- How is tension built during the rising action of the play?

Section 3: Reading skills

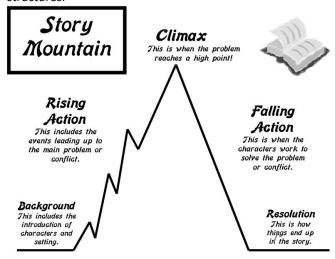
What is inference?

Inference is when you read between the lines and look for clues in a story.



Plot stages:

You can discuss the plot development of the play by referring to the different stages in common story structures.



Maths: Solving Linear Equations



Section 1: Key Vocabulary		Section 2: Knowledge/Skills		Section 2: Knowledge/Skills		
Tier 3 vocabulary	Definition	Solving one-step equations		Solving two step equations		
Algebra	The use of letters or symbols to represent unknown values.	1. x 5	x + 5 = 20			
Equation	Shows two things as equal and can be solved to find an unknown, or variable amount.	20	-5 -	4x 3	4x + 3 = 27	
Solution	A value or values which, when substituted for a variable in an equation, make the equation true.	x 5	5	27 4x 3	-3 -3	
Unknown	an unknown is a number we do not know. They are commonly used in algebra, where they are also known as variables and represented by symbols	2. 3x	x = 15	24 3	4x = 24	
Coefficient	The numerical multiplier for any variable in an expression/equation.	15	3x = 15	x x x x	$\div 4 \div 4$	
Simplify	To write in a simpler form by collecting common terms.	x x x	÷ 3 ÷ 3	6 6 6 6	x = 6	
Tier 2 vocabulary	Definition	5 5 5	x = 5	Solving equations with unknowns	on both sides	
Term	A single number or variable	3.				
Expression	A "bit of algebra" with a minimum of two numbers/variables and at least one operation.	$\frac{x}{2}$	$\frac{x}{2} = 10$		3x + 10 = 2x + 18	
Variable	A quantity that may change within the context of a problem.	10	×2 ×2	2x 18 _	-2x - 2x	
Subject	The unknown number we need to find the value of.	X	× Z × Z	x 10	x + 10 = 18	
Collecting terms	Simplifying an expression by combining "like terms"	20	x = 20	18	-10 - 10	
Solve	Numerical value that satisfies the equation.				x = 8	
Product	The result of a multiplication.	Solving equations involving brad	ckets	X +2 X +2 X +2		
Maths watch revisi	ion links		(x+2) = 15	15	3(x+2) = 15	
	swatch.co.uk/vle/browse/712/practice	15	-		÷ 3 ÷ 3	
	swatch.co.uk/vle/browse/770/practice swatch.co.uk/vle/browse/771/practice	X X X +2 +2 +2 32	x + 6 = 15	x +2	x+2 =5	

Year 8 Autumn 2

Maths: Estimation & Rounding

3 BELPER SCHOOL and Sixth Form Centre

Rounding to degrees of accuracy. Calculating with rounded figures. Understanding levels of accuracy.

Section 1: Key Vocabulary				
Tier 3 vocabulary				
Integers	Whole numbers			
Decimal Places	Digits after a decimal point			
Significant figures	The digits in a number with the largest place values			
Place value	The actual value of a digit according to the column in which it sits			
Upper Bound	The largest value that a rounded number might originally have had.			
Lower Bound	The smallest value that a rounded number might originally have had.			
Error Interval	The range of values that a number could have been before it was rounded			

Tier 2 vocabulary					
Limits A value beyond which a number may not extension or pass					
Round	Rounding means making a number shorter or simpler but keeping its value close to what it was.				
Approximate	A value which is close to but not equal to the true value of a number				
Estimate	A calculated value made using rounded numbers				
Truncate	To cut a decimal number short				
Error	The difference between an estimated value and the true value				

Maths watch revision links

https://vle.mathswatch.co.uk/vle/browse/700/practice https://vle.mathswatch.co.uk/vle/browse/701/practice https://vle.mathswatch.co.uk/vle/browse/764/practice https://vle.mathswatch.co.uk/vle/browse/804/practice https://vle.mathswatch.co.uk/vle/browse/249/practice

Section 2: New Knowledge/Skills

You should already know how to round numbers to the nearest: integer eg. 32.38 rounds to 32

32.8731 rounds to 33

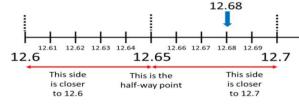
ten eg. 32 rounds to 30

36 rounds to 40

hundred, thousand and so on

Rounding To A Given Number Of Decimal Places (d.p.)

Eg Round the number 12.68 to 1 decimal place (1 d.p.)



So 12.68 **rounds** to 12.7 to one decimal place (1 d.p.) **BUT** if we **truncate** 12.68 to 1 d.p. we get 12.6

Rounding To A Given Number Of Significant Figures (sig. fig.)

In the number 234, the most significant digit is the 2 because it represents 200, whereas the 3 only represents 30 and the 4 is 4. **We could understand significant as having the biggest value.** So when we round to the nearest significant figure we are rounding to the column with the same place value as the most significant figure.

234 rounded to 1 significant figure (1 s.f.) rounds to the 100 column.

234 rounds to 200

234 rounded to 2 significant figures rounds to the tens column. 234 rounds to 230

0.0234 rounded to 1 significant figure (1 s.f.) rounds to the 100ths column.

0.0234 rounds to 0.02

Estimation

When we find approximate values of calculations using estimation, we round all the values in the calculation to 1 sig fig before calculating.

$$\frac{62.5 + 7.9}{12.4} \approx \frac{60 + 8}{10} = \frac{68}{10} = 6.8$$

Error Intervals

An error interval uses the inequality symbols (<, >, \le , \ge) to show all the values that a rounded number might have had **before** it was rounded.

In the example in Section 2 we rounded 12.68 to 12.7. If it hadn't been 12.68 what else could the number have been? We can see from the number line that everything to the right of 12.65 rounds up to 12.7. 12.65 also rounds up to 12.7, so $x \ge 12.65$. Beyond 12.7 everything up to 12.75 rounds down to 12.7, but at 12.75 we start rounding up to 12.8, so x < 12.75, giving the following error interval for 12.7 rounded to 1 d.p. $12.65 \le x < 12.75$

Section 3:

Rounding Examples

	Nearest	1	2	1	2
	integer	decimal	decimal	significant	significant
		place	places	figure	figures
43.782	44	43.8	43.78	40	44
154.967	155	155.0	154.97	200	150
0.0816	0	0.1	0.08	0.08	0.082

Estimation

 ${\bf Q}.$ Find approximate values for the following calculations and state whether the estimate is an over-estimate or underestimate.:

a) $4.85 \times 28.7 \div 96.2$

A: 1.5 (over)

o) <u>642 x 318</u> 43 x 4.9 A: 900 (over!)

Error Intervals

6.2cm

3.4cm

Q. If each measurement is given to one decimal place, state the error interval for the length and the width of the rectangle.

A: $6.15 \le \text{length} < 6.25$ and $3.35 \le \text{width} < 3.45$

Q. What are the values for the smallest possible area and the largest possible area for the rectangle?

A: smallest = $20.6025cm^2$ largest = $21.5625cm^2$

Q. What is the largest possible **error** in the area?

A: 0.96

Science: Our Body



Section 1: Key Vocabulary		
Tier 3 vocabulary	Definition	
Tissue	Group of cells of one type.	
Organ	Group of different tissues working together to carry out a job.	
Organ system	A group of organs working together to perform a certain function.	
Antagonistic pair	Pairs of muscles that relax and contract to create movement.	
Joints	Places where bones meet.	
Ventilation	Movement of air in and out of the lungs.	
Trachea (windpipe)	Carries air from the nose and mouth to the lungs.	
Bronchi	Tubes which branch off from the trachea and carry air into the lungs.	
Bronchioles	Small tubes branching off the bronchi that carry air throughout the lung tissue.	
Alveolus (plural alveoli)	Small air sacs where gas exchange happens.	
Gas exchange	The exchange of oxygen into the blood and carbon dioxide out.	
Aerobic respiration	Chemical reaction that uses oxygen release energy from glucose.	
Anaerobic respiration	Chemical reaction that does not use oxygen to release energy from glucose.	
Diaphragm	Sheet of muscle found under the lungs.	
Tar	A thick black substance produced by cigarettes.	
Carbon monoxide	A poisonous gas that stops the blood from carrying oxygen.	
Nicotine	The addictive substance in cigarettes	

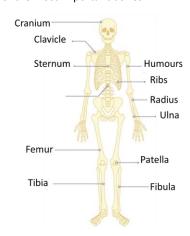
Section 2: organ systems

Key human organ systems include;

- Circulatory system used to pump blood around the body.
- Respiratory system used to get oxygen into the blood
- Reproductive system used to produce babies
- Musculoskeletal system used for movement
- Digestive system used to get nutrients from food
- Immune system used to fight infections
- Nervous system is used to control the body

The skeleton

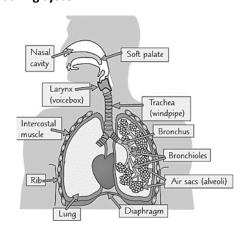
There are 206 bones in the human body, below are some of the most important bones.



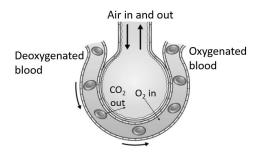
To see the second secon	Antagonistic muscle pairs	Lower arm raises and elbow bends	Lower arm lowers and elbow straightens
	Tricep		
	Bicep		

Section 3: Breathing System and Cellular Respiration

Breathing system



Gas Exchange in the Alveoli



Respiration is a chemical reaction that occurs in every living cell to release energy.

Aerobic respiration requires oxygen.

Glucose + oxygen → carbon dioxide + water

Anaerobic respiration happens when there is not much oxygen, for example during exercise.

Glucose → lactic acid

Science: Light and Sound



Section 1: Key Vo	ocabulary
Tier 3 vocabulary	Definition
Refraction	Light changing direction as it passes between substances
Transparent	A substance light can pass through
Opaque	Substances that block light completely
Absorb	When light is taken in by an object and NOT reflected
Normal Line	A line at right-angles to a surface
Incident Ray	The line of light coming into a Ray Diagram
Reflected Ray	The line of Reflected Light in a Ray Diagram
Refracted Ray	The line of Refracted Light in a Ray Diagram
Angle of Incidence	The angle between the Incident Ray and the Normal
Angle of Reflection	The Line between the Reflected Ray and the Normal
Spectrum	The word for a range of colours, like a Rainbow
Tier 2 vocabulary	Definition
Frequency	The number of complete wave or vibrations per second
Wavelength	The Distance between one point on a wave and the same point on the next wave
Electromagnetic Wave	The Scientific term for all forms of Light, visible and invisible
Luminous	An object that emits its own ght
Non-Luminous	An object that doesn't emit its own light

Section 2: New Knowledge/Skills

Sound Waves travel at 310-350 m/s in air.

Light waves travel at 300,000,000 m/s in a vacuum.

A Wave is a way of transferring Energy from place to place.

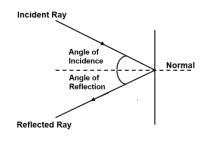
Luminous Objects, like lights, Emit their own light. Non-Luminous Objects, like people or the Moon, Reflect light. Shadows are where light doesn't travel.

How to Draw a Ray Diagram

- Use a ruler and a pencil
- Put a single arrow in the middle of the light ray; not the end
- Draw the Normal with a dotted line
- The rays and the normal should all meet in the same place

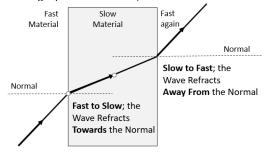
Reflection:

The Angle of Reflection is equal to the Angle of Incidence



Refraction

When a wave move from one material to another the wave can change speed and direction; this is Refraction.

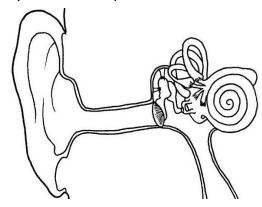


Section 3: Other subject specific things

Light can travel through a Vacuum, Sound cannot:
All Sounds are caused by Vibrations; the vibrations are passed on through the Particles in the material, like air molecules.
The Closer the particles are together, the Faster the sound travels. So Sound travels Fastest in Solids and Slowest in Gases. Sound can't travel through a Vacuum because there are no particles in a vacuum to vibrate.

High Frequency: The **Faster** something **Vibrates**, the **Higher** the **Pitch**. **Lower** frequency vibrations give a **Lower** pitch. **High Intensity**: The **Larger** the vibrations, the **Louder** the sound. **Lower** Intensity is a **Quieter** sound.

Can you remember all the parts of the ear?



The Human Hearing Range is about **20Hz to 20,000Hz**, but animals all have different ranges.

What things might stop us hearing properly?

White Light is made up of all the Visible Colours; can you remember the main seven colours in order?
We get a Spectrum of these colours when we Disperse white light through a Prism, like a Rainbow does with raindrops.

Colours and **Filters** only allow the colours they appear to be passed on; they **Absorb** all the other colours that hit them. What happens to the **Energy** in the absorbed light?

Why do **Dark Clothes** make you **Warmer** in sunlight than Light **Coloured Clothes**?

Year 8 Autumn 2

Science: Unit 6a - Elements, Compounds and Mixtures



Section 1: Key Voc	cabulary	Section 2: New Knowle	dge/Skills			
Tier 3 vocabulary	Definition	Element	Compound	Mixture		
Atom	The smallest part of a chemical element which can take part in a chemical reaction and remain unchanged	o o	Compound		Metals Conduct heat and electricity.	Non Metals Poor conductors of heat a electricity.
Element	A substance which cannot be broken down into simpler substances	An element contains only	A compound contains more than one type	A mixture contains more than one	Malleable (can be shaped) Ductile (can be pulled	Brittle Most have low melting
Molecule	A group of chemical atoms joined together by chemical bonds	one type of particles.	of particle. The different particles are	type of particle. The different types	into wires)	points.
Compound	A substance which consists of two or more different elements chemically joined together.		joined.	of particle are not joined.		
Periodic table	A list of all the known chemical elements.	Word equation These show wh	s nat happens in a chemic	al reaction		
Group	A column on the periodic table. Elements in the same group react in a similar way.		Reactants → Products	arreaction.		Group 7 is
Period	The rows on the periodic table			1		Halogens Group v
Chemical Symbol	Letters which are used to represent a chemical.		Group 1 Group 2 7 I 9 Be	Hydrogen	11 12	Group 5 Group 6 Group 7 2 14 16 19 20
Word equation	Word equations are used to represent chemical reactions.	Columns on the periodic table are	23 Na Mg Sodium Manassam	Transition meta	Is Boon Carbon 5 6 8	Nitrogen 8 9 Fluorine Neon 10 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10
Tier 2 vocabulary	Definition	called groups.	Potassium Calcium Scandium Titanium Var 19 20 21 22 23	V Cr Mn Fe Co Cobait 24 25 26 26 27 27 96 99 101 103	59	75 As 6 Seenlam 80 Br Krypton 33 34 35 36 G
Mixture	A substance containing two or more different substances which are not joined together.	Group 1 is called the	Rudoidum Strontum Titruum Zirconium National National	ND 96 99 101 103 Ru Rh 104	46 47 48 49 50	122 128 127 131
Property	The way a substance behaves or reacts.	Alkali Metals	7 Fr Radium Redium Actinides 88 Actinides			separates metals from non-metals
Chemical reaction	When the particles in substances join together or split apart to form new substances		<u> </u>	These element	s are metals	These elements

Year 8 Autumn 2

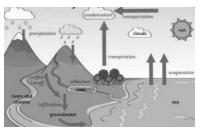
Section 1: Key Vocabulary			
Tier 3 vocabulary	Definition		
Source	The place where a river begins.		
Mouth	The place where a river ends. This is often the sea but can be a lake.		
Evaporation	When the sun heats water as a liquid and it turns into a gas (water vapour).		
Condensation	When water vapour cools and becomes a liquid eg. when clouds form.		
Interception	When plants catch the falling rain (precipitation) on their leaves.		
Infiltration	Water sinks into the ground.		
Surface runoff	Water runs over the top of the ground. A lot of surface runoff will often cause floods.		
Groundwater	Water stored in the bedrock underground.		
Watershed	The edge of a river's drainage basin.		
Abrasion	Erosion where sediment (eg rocks) in the river wears away the banks and bed of the river.		
Attrition	Erosion where the rocks in the river hit each other and over time become smaller and smoother.		
Hydraulic action	Erosion where the force of the water pushes into cracks in the river's bed and banks, causing rock to break away.		
Solution	Erosion where rocks such as chalk and limestone dissolve in the slightly acidic river water.		
Transport	The movement of sediment along the river channel.		
Deposition	When the river loses energy and it drops the sediment it is carrying.		
Waterfall	A steep fall of water. These are found in the upper course of a river.		
Meander	Bends in the river. These are found in the middle course of a river.		
Floodplain	The flat area next to a river.		

Geography: Rivers

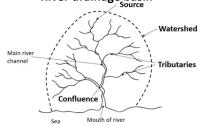


Section 2: New Knowledge

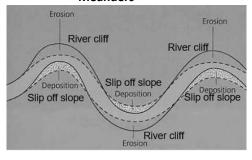
The water cycle



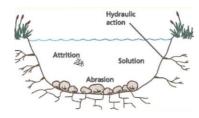
River drainage basin



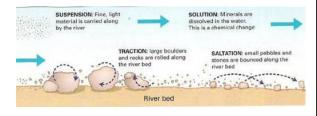
Meanders



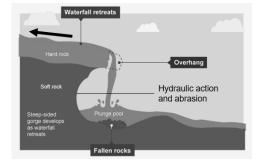
Types of erosion



Types of sediment transport



Waterfalls



Reasons for flooding: Heavy rain, impermeable surfaces, no trees, steep slopes, no flood management eg. walls, urban areas (towns and cities).

Section 3: Geographical Skills

- Using OS maps and aerial photographs to identify the features of a river.
- Labelling diagrams, using geographical terms.

History: Revolution in Industry and Voting Rights



Section 1: Key Vocabulary			
Tier 3 vocabulary	Definition		
Revolution	A period of great change		
Industrial Revolution	The process of change from an agricultural economy to one dominated by industry and machines.		
The Flying Shuttle	An invention that could produce much wider cloth at faster speeds than before.		
The Spinning Jenny	An invention meaning that up to eight threads could be spun at once and sped up the process of spinning.		
The Water Frame	Machine producing thread that is far stronger.		
Suffrage	The right to vote.		
Suffragists	A person advocating that the right to vote be extended to more people, especially to women.		
Suffragettes	Women seeking the right to vote through organized protest.		
Shell Shock	The psychological effects of war		
Tier 2 vocabulary	Definition		
Reformers	People who want to bring about change		
Chartists	A group who campaigned for better social and industrial conditions for the working classes		
Franchise	The right to vote in elections for public officials		

Section 2: New Knowledge

The Industrial Revolution

- 1750-1900 There was a huge shift in Britain from farming and household work by hand to machines, mills and factories this is known as the Industrial Revolution.
- · The causes of the Industrial Revolution in 1750.
- The role that Belper and the local area played in the Industrial Revolution.
- The new inventions of the period like the Spinning Jenny,
 The Water Frame and The Flying Shuttle.
- Key individuals of the Industrial Revolution including: Richard Arkwright, John Kay and James Hargreaves.

The Impact of the Industrial Revolution on people's lives.

- Conditions in the mills and factories. The impact these had on the workers.
- The work of men in mines and textile factories.
- Children in the mills. The jobs they were expected to do and the conditions in which they worked.
- Strutts Mill in Belper and how it treated its workers.
- A comparison between Belper's Mill and others nearby.
- The working lives of women in mills. Their role and the expectations of working women.
- Liberty's Dawn and what can be learnt from the book about the impact of the Industrial Revolution on people's lives.

The Campaign For The Vote and Equal Rights in the 1800s

- The efforts of reformers to extend the right to vote.
- The arguments for and against reforming the democratic system in the 1800s
- The work of the Chartists, their methods and supporters in the 1830s.
- The successes of the Chartists in extending the franchise and workers rights.
- Women's rights and the campaign for women's suffrage in the 1800s
- Views for and against women having the right to vote
- The work, campaigns and limitations of the Suffragist movement
- The rise and popularity of the Suffragette movement
- The tactics and treatment of the Suffragettes
- The success of the Suffragettes
- The campaign for equal rights focussing on the life of Anne Lister and other groups in society.

Section 3: Enquiry Questions

What was it like living and working in Belper during the 18th and 19th century?

Did the efforts of Chartists and Reformers change anything?

What's the story of the women's suffrage campaign?

Section 4: Source Analysis

When analysing sources consider the following:

Content- What is happening in the picture, who are the key

people, what message is it giving?

Context- What else is happening at the time?

Purpose- Why was this cartoon drawn?

Provenance- Who drew it? Who is it the audience?



Section 5: Interpretations

How and why historians and others have interpreted the same events and developments in different ways.

For example:

Some historians will argue that the Suffragettes were campaigners for a just cause.

Other historians will argue that their methods amounted to terrorism.

Exodus

Section 1: Key Voc	
Tier 3 vocabulary	Definition
Mantle	The cover of a Torah Scroll.
Mitzvah	Commandment
Pesach	(Passover) Jewish festival commemorating the Exodus from Egypt.
Torah	'The Law" the first section of the Tenakh and the first five books of the of the Jewish Bible.
Tenakh	The 24 books of the Jewish Bible. Comprising three sections; Torah, Nevi'im and Ketuvim.
Ketuvim	'The writings' the third section of the Jewish Tenakh.
Ten Commandments	Fundamental laws of the Jewish people which tells them how to live.
Synagogue	Jewish place of worship.
Tier 2 vocabulary	Definition
Eternal	'Everlasting': without beginning or end.
Reform	Progressive form of Judaism
Orthodox	Traditionalist branch of Judaism.
Covenant	In Judaism an agreement or contract.

The journey of the Israelites out of Egypt.

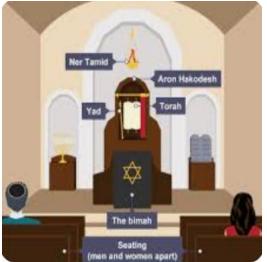
Abraham

Section 2: New Knowledge

The Torah says that God appeared to Abraham, saying that there is only one God and that he should leave his home to travel to Canaan, a land that God would give to him and his descendants

Key Beliefs

There is only one God
God created the universe and is eternal
God is omniscient
God rewards those who obey his
commands and punishes those who
disobey them



The Tenakh

The Jewish Bible is called the Tenakh and is a collection of 24 separate books, divided into three sections:

- Torah
- Nevi'im

Section 3: New Knowledge

Ketuvim

Jewish people try to follow the commands contained in the Torah, believing that they came from God.

The Ten Commandments are probably the best known of the 613 mitzvot. While the first four are about the Jewish people's relationship with God, the last six are about relationships with other human beings.

Worship

Orthodox Judaism teaches that men should pray three times a day (morning, afternoon and evening) except at Shabbat - the weekly day of rest - when there should be 4 prayers daily.

Shabbat begins before nightfall on Friday and lasts for 25 hours. It is a command from the Torah that Jewish people should recite the Shema twice a day - morning and night. Shema is a short collection of passages from the Torah.

A Jewish place of worship is called synagogue or shul. Individuals may pray anywhere, but Jewish law says that some forms of worship are communal. Readings from the Tenakh play an important part in worship in the synagogue.

Two festivals that are important in Judaism are Pesach which celebrates Moses' mission to free the Israelites from slavery in Egypt, and Sukkot, which reminds Jewish people of the time when the ancient Israelites, having escaped from slavery in Egypt, travelled through the desert sleeping in temporary shelters.

Source of Authority

- Genesis 12:1-3
- Exodus 1
- Deuteronomy 6.4-5

French: Everyday and past experiences



Section 1: Key Vocabulary/Questions			
Tier 3	Definition		
Perfect tense	A verb tense that describes completed actions in the past e.g. 'I said', 'she played'		
Past participle	Verb form that forms the perfect tense, usually together with 'avoir'		
Intonation questions	French statements become questions by raising tone at the end		
Demonstrative adjectives	A word to specify a particular noun, indicating this , 'that', these or 'those'		
Est-ce que	French questioning device		
Negation	Two words, e.g. ne pas , around the main verb negating meaning		
Adverb	A word that describes a verb, an adjective, or another adverb, providing more information about where, when, or how something is done.		
Infinitive	The 'to + verb or –ing'		
Regular verb	A verb that follows the regular rules		
Possessive adjectives	"my," "your," "his," or "her" show ownership, and they must agree in gender and number with the noun, not with the owner.		

	<u> </u>
Questions	Translation
1. Tu as visité Paris?	Did you visit Paris?
2. Tu as travaillé ?	Did you work?
3. Est-ce que tu as aimé le fim ?	Did you like the film?
4. Tu aimes regarder les films ?	Do you like watching films?

Section 2: Grammar

Intonation questions

Question:

In French, change a statement into a question by raising your voice at the end:

Statement:

tu chantes ?

you sing/ are singing.

do you sing/are you singing?

Add a question word to ask for detail.

Tu chantes quand? When do you eat? Tu manges quoi? What do you eat?

Est-ce que questions

statement : il a visité la ville. He visited the town. Intonation Q.: il a visité la ville ? Did he visit the town? Est-ce qu'il a visité la ville ?

Ce, cet, cette and ces are demonstrative adjectives, used to specify which noun you are

Ce means this for masculine nouns, or cet for nouns starting with a vowel or 'h'. Cette goes before feminine nouns.

Ces goes with all plural nouns and means these.

We can add a demonstrative adjective to an intonation question to make it more

To express there is or there are, we use the expression il y a.

To express there was or there were, we use il y avait. Both of these expressions remain the same for singular or plural descriptions, for example: il y avait un chien, il y avait cinq

ER verbs in present and perfect tenses		
present	perfect (avoir + past participle)	
je travaill e	j'ai travaillé	
tu travaill es	tu as travaill é	
il/elle/on travaill e	il/elle/on a travaill é	
nous travaill ons	nous avons travaill é	
vous travaill ez	vous avez travaill é	
ils/elles travaillent	ils/elles ont travaill é	

Possessive adjectives	masculine	feminine	plural
my	mon	ma	mes
his/her/their	son	sa	ses
our	notre	notre	nos

Section 3: WAGOLL, grammar & phonics

Bonjour Thomas Pesquet!

Pourquoi aimes-tu ces plats français traditionnels? J'adore la cuisine française, car elle est unique dans le monde. En plus, le goût dans l'espace est différent. C'est extraordinaire!

Pourquoi aimes-tu être astronaute?

J'adore être astronaute, parce que c'est amusant, mais parfois un peu solitaire. Chaque jour est différent et aussi la vue de la navette* est magnifique!

To make a sentence mean the opposite, we use negation. One way we can do this is by adding ne ... pas around the main verb.

With two-verb structures like the perfect tense, the ne ... pas surrounds the first verb. the form of 'avoir'.

There is no one-word equivalent to didn't in French. Use ne ... pas and the perfect tense.

The verb 'envoyer' (to send), changes its spelling in the present tense from 'y' to 'ie' in all forms apart from the 'nous' and 'vous' forms.

French phonics		* o/ô + au/eau sound the same	
gn	li gn e	o/ô*	ph o t o
é/er	pass é/ pass er	au/eau*	b eau
C/ C1	passe/ passer	au, cau	beau
r	rue/repas	oi	J'env oi e
closed -	eu	peu	
open –eu/ œu		cœur, sœur	
Silent Fi	inal Consonant-SFC	`	

The consonants **c**, **r**, **f** and **l** are exceptions to this rule.

Be c a r e f u I with these!

neu**f** anima**l** sac

8Fr Aut2 W1		
apporter	to bring, bringing	
dit	said (pp)	
fait	did, made (pp)	
envoyer	to send, sending	
utiliser	to use, using	
maintenant	now	
hier	yesterday	
l'appartement	apartment, flat	
la banque	bank	
le marché	market	
le passé	past	
8Fr Aut2 W1 extension	revision on Languagenut	

8Fr Aut2 W2	
l'automne	autumn
l'été	summer
l'hiver	winter
le musée	museum
le printemps	spring
la place	(town) square
la saison	season
belge	Belgian (m/f)
dernier	last (m)
dernière	last (f)
pendant	during
la Belgique	Belgium
Bruxelles	Brussels
8Fr Aut2 W2 extension	revision on Languagenut

8Fr Aut2 W3	
emporter	to take with, taking with
proposer	to suggest (doing), suggesting (do
voyager	to travel, travelling
traverser	to cross, crossing
la frontière	border

la forêt	forest	
la montagne	mountain	
la vue	view	
suisse	Swiss (m/f)	
la Suisse	Switzerland	
Genève	Geneva	
il y avait	there was, there were	

8Fr Aut2 W3 extension	revision on Languagenut
8Fr Aut2 W4	same as W3
8Fr Aut2 W4 extension	revision on Languagenut

8Fr Aut2 W5	
gérer	to manage something/someone
l'espace	space
le goût	taste
la langue	language, tongue
le plat	dish
la recette	recipe
le repas	meal
d'abord	first of all
puis	then
par	by
puisque	as, because
Noël	Christmas
le réveillon	Christmas Eve, New Year's Eve
8Fr Aut2 W5 extension	revision on Languagenut

8Fr Aut2 W6	
la carte	card
le côté	side
à côté	nearby
à côté de	beside
le foot	football
la guitare	guitar
l'instrument	instrument
la pétanque	boules (a game from the south of

le piano	piano
droit	right
à droite	on the right
gauche	left
à gauche	on the left
loin	far
loin de	far from
près	near
près de	close to, near
8Fr Aut2 W6 extension	revision on Languagenut

8Fr Aut2 W7		
acheter	to him hindag	
acheter	to buy, buying	
coûter	to cost, costing	
peser	to weigh, weighing	
je pèse	I weigh, I am weighing	
il pèse	he weighs, he is weighing	
elle pèse	she weighs, she is weighing	
payer	to pay (for), paying (for)	
l'eau	water	
l'euro	euro	
l'exercice	written exercise, physical exercis	
le fromage	cheese	
la glace	ice-cream	
la natation	swimming	
le pain	bread	
le poisson	fish	
le sport	sport	
le travail	work	
8Fr Aut2 W7 extension	revision on Languagenut	

Year 8 Autumn 2

German: Time, Past Journeys, Likes & Dislikes



Section 1: Key Vocabulary/Questions Tier 3 Definition Strong verb Verb which changes its vowel in the verb stem of some of its forms Direct object Replaces the noun receiving pronoun the action of the verb, e.g. 'me', 'you', 'it', 'them' Past participle Verb form that forms the past (perfect) tense, together with the auxiliary verb 'haben' or 'sein' Perfect tense Verb tense that describes actions completed in the past A word that is used before a Preposition noun, a noun phrase or a pronoun, connecting it to another word **Dative** Form used after a dative preposition, e.g. 'von' or 'mit' WO1 The standard word order of German (subject - verb adverb - noun) WO2 Inverts the subject and verb in a sentence

Questions	Translation
Was machst du?	What do you do? / What are you doing?
Was macht sie?	What does she do? / What is she doing?
Spielst du oft Tennis?	Do you play tennis often?
Arbeitest du?	Do you work? / Are you working?

Section 2: Grammar

Prepositions

Some prepositions (durch) are followed by the accusative case, some (mit, zu, von) by the dative case and some (in) by either.

	m	f	n	pl
accusative	den	die	das	die
dative	dem	der	dem	der

Ich fahre **durch** \underline{den} Tunnel \rightarrow I go through the tunnel Ich gehe **durch** \underline{die} Tür \rightarrow I go through the door

Ich fahre $mit \underline{dem}$ Bus \rightarrow I travel with the (by) bus

For 'in', use accusative if it relates to 'where to' and use dative if it relates to 'where'

Ich gehe in <u>den</u> Supermarkt \rightarrow I go into the supermarket Ich bin in <u>dem</u> (im) Supermarkt \rightarrow I am in the supermarket

gern

Use gern and nicht gern to express likes and dislikes.

gern means gladly and is an adverb, so it's after the verb in the sentence.

Ich gehe **gern** in den Wurstelprater \rightarrow I **like** going to the Wurstelprater. Ich fahre nicht **gern** mit dem Riesenrad \rightarrow I don't **like** going on the big wheel.

A word order rule

Use the word order manner before place.

Ich bin mit der Bahn nach Polen gefahren.

manner	place
(how?)	(where?)

Direct Object Pronouns

Direct object pronouns are the pronouns that show what is receiving the action of the verb.

Subject	verb	Direct Object pronoun	
Ich	sehe	dich	I see you
Du	siehst	mich	You see me

Section 3: Grammar & phonics

Strong verb pattern in the present tense

Strong verbs have a vowel change in the stem for the du, er/sie/es form

Weak verbs and Strong verbs in the perfect tense

<u>Weak verbs</u> have the past participle: ge + verb stem + t e.g. ich habe ein Schloss **ge**kauft / ich habe Tennis **ge**spielt

The past participle of strong verbs must be learnt. They end in **en** and some have a vowel change.

Er hat ein Buch **ge**les**en**. \rightarrow He read a book Ich bin in die Schweiz **ge**fahr**en**. \rightarrow I travelled to Switzerland Ich bin viel **ge**schwommen. \rightarrow I swam a lot Wir haben die Fahrt **ge**nossen. \rightarrow We enjoyed the journey

German phonics			
	short		long
a	kalt	a	s a gen
0	K o pf	0	Wo
	soft		hard
ch	ich	ch	Bu ch
Other phonics			
ä	like the ai in ai r before you say the r	er	like the English 'air'
ig	at the end of a word, like the soft ch in i ch	Z	like the ts in the english word boo ts

8Gr Aut2 W1	
natürlich	of course, naturally
nur	only
die Bevölkerung	population
die Unterstützung	support
das Prozent	percent
vierzig	forty
fünfzig	fifty
sechzig	sixty
siebzig	seventy
achtzig	eighty
neunzig	ninety
hundert	hundred
nichts	nothing
mich	me
dich	you
enthalten	to contain
sterben	to die
8Gr Aut2 W2	
wirklich	really, actually
gestern	yesterday
so	so, thus
also	so
die Arbeit	work
die Seite	page
die Bank	bank
Uhr	o'clock
der Sport	sport
um	at (time)
holen	to get, fetch
von	from, of
8Gr Aut2 W3	
polnisch	Polish
	1 011311
die Bahn	train, railway
die Bahn die Tante	
	train, railway

der Onkel	uncle
der Norden	north
der Westen	west
der Osten	east
der Süden	south
das Flugzeug	plane
das Schiff	ship
Polen	Poland
fliegen	to fly, flying
geflogen	flown (pp)
gegangen	gone (pp)
gefahren	driven, travelled (pp)
8Gr Aut2 W4	
frisch	fresh
die Erfahrung	experience
die Luft	air
die Fahrt	drive, trip
der Wald	forest, woods
der Berg	hill, mountain
ach	oh
durch	through
erfahren	to experience, experiencing
klettern	to climb, climbing
wandern	to hike, hiking
küssen	to kiss
geschwommen	swam, swum (pp)
geblieben	stayed, remained (pp)
gestiegen	climbed (into) (pp)
steigen	to climb, climbing (into)
8Gr Aut2 W5	
normal	normal
langsam	slow
schnell	fast
gern	gladly
die Aktivität	activity
der Jugendclub	youth club

das Hobby	hobby
das Schloss	castle
das Telefon	telephone
anderer	other, another (m)
andere	other, another (f)
anderes	other, another (nt)
8Gr Aut2 W6 A-C	revision on Languagenut

8Gr Aut2 W7	
weiterer	additional (m)
weitere	additional (f)
weiteres	additional (nt)
der Geburtstag	birthday
während	during
stellen	to put, place (upright)
setzen	to put, set
einkaufen	to shop, shopping
vorbereiten	to prepare, preparing
anfangen	to begin, beginning
ankommen	to arrive, arriving
stattfinden	to take place
anrufen	to call, calling
mitbringen	to bring, bringing

Computing: Computing in the 21st Century



Section 1: Key Vocabulary		
Tier 3 vocabulary	Definition	
GUI	GUI stands for Graphical User Interface. A GUI is a user interface found on most modern computing devices.	
Command Line	CL stands for Command Line Interface. A CL is a user interface found on devices that were popular during the tech boom of the 1970s and 1980s.	
Memory	Memory is the area where the computer stores or remembers data. Memory provides the CPU with its instructions. There are different types of memory, and each one plays an important role in the running of a computer system. Memory is sometimes called primary memory. Memory is either volatile or non-volatile.	
Data	Data is the term given to the quantities, characters, or symbols on which operations are performed by a computer, which may be stored and transmitted in the form of electrical signals and recorded on magnetic, optical, or mechanical recording media.	
Operating System	An operating system is a piece of systems software which allows a human to interact with a computing device.	
Binary Numbers	Binary Numbers are the system used for counting in computing devices. 1s and 0s are the only two types of Binary Numbers.	
Denary	Is another name for the Decimal Counting system. 0,1,2,3,4,5,6,7,8 and 9 are the numbers used in Denary System.	
Primary Storage	Primary Storage is memory located within a computer system. RAM and ROM are types of Primary Storage.	
Secondary Storage	Secondary Storage is memory which is not RAM or ROM and is used to store data within a computer system.	

Section 2: New Knowledge

Operating Systems

An Operating System (or OS as it is often abbreviated to) is a piece of system software installed onto a computer or digital device to allow a human to fully interact with the device.

Operating Systems also act a platform to allow other pieces of software or apps to run off. Modern Operating Systems are called **GUIs** (Graphical User Interfaces). GUIs are made up the following key characteristics WIMPs. (Windows, Icons, Menus and Pointers).

Before GUIs became popular, most OS' were known as Command Line Interfaces. These were seen as less easy to use for novice /occasional users so in terms of popularity they declined and tend only to be used by keen programmers and software developers.

Primary and Secondary Storage

Primary Storage refers to data storage located inside the computer/device. Primary Storage is known simply as Memory. RAM and ROM are the two types of Primary Storage.

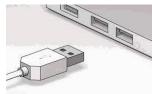
Secondary Storage refers to any other type of data storage that is not RAM or ROM. A Hard Drive, Solid State Drive and Optical Disk are the most common types of Secondary Storage.

RAM and ROM

RAM stands for Random Access Memory. RAM is a volatile, non-permanent form of primary storage. Its use is to store data and memory which a computer is currently using, until it is transferred or saved to a Secondary Storage Device. Because RAM is volatile it cannot be saved to, and it is lost when the power is switched off.

ROM stands for Read Only Memory. ROM is non-volatile, permanent form of primary storage. Is use is to store the instructions on how to load the operating system when a computer is booted up. ROM cannot be saved to or changed.





Section 3: New Knowledge

Binary

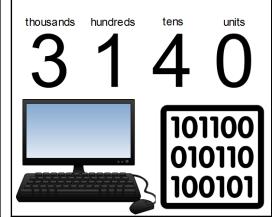
What is Binary?

Computers and Digital Devices count using the Binary Number System. Binary uses the Base 2 number system (0 and 1). Computers cannot count like humans so they rely on a series of on and off switches using electronic circuits. 1 is On and 2 is off. Binary Numbers can be put togethers in a series of patterns to represent the numbers humans use. The Binary number below represents the number 53.



Denary What is Denary?

Humans count using the base 10 number system. This is known as denary. Denary is also referred to as Decimal. Denary uses 10 types of numbers (0,1,2,3,4,5,6,7,8 and 9). These 10 numbers can be used to create any number to count as a human. Humans are taught to count in childhood using the Thousands, Hundreds, Tens and Units system. See below.



PE: Basketball

Section 1: Key Vocabulary		
Tier 3 vocabulary	Definition	
Jump Shot	The most common way to shoot the ball by jumping up straight to shoot over the defender.	
Set Shot	Keeping the feet on the floor when shooting - only used for free-throw.	
Lay-up	A close range shot taken with a running action after dribbling to the basket.	
Dribble- move	Changing hands or direction when dribbling to evade a defender - key techniques are the crossover, spin, through-the-legs and behind-the-back.	
Man-to-man	A defensive system where each player is responsible for marking a player from the opposing team.	
Over-dribble	Taking too many bounces of the ball and either losing possession or having a negative effect on your team's attacking options.	
Violation	Breaking the rules of the game such as travel, double-dribble, out-of-bounds, carrying.	
Foul	Physical contact which gives an unfair advantage over an opponent.	
Free-throw	If you are fouled when shooting, you will get a free-throw - basketball's equivalent of a penalty shot	

Section 2: New Knowledge/Skills

In Year 8 basketball you will develop your scoring ability by working on the two main techniques for scoring baskets: the jump-shot and the lay-up.

You will learn how to use the **skill** of **dribbling** more effectively in the game to help your team.

You will start to work as a team in games by communicating with each other to organise an effective man-to-man system. As your understanding of the game improves more rules will come into play to keep games fair and you may be asked to referee your classmates' games.

PE: Net Games

Section 1: Key Vocabulary		
Tier 3 vocabulary	Definition	
Rally	Hitting the shuttle or ball back and forth with your opponent.	
Service	Getting the rally started with a serve - there are some important rules to follow to keep things fair.	
Umpire	Net games are officiated by an umpire - you will take a turn as umpire in most lessons.	
Love	The score of zero in net games is called 'love' eg. 3-0 is said "3 love". Love comes from the French for 'egg' - l'oeuf - because a zero looks like an egg.	
Fault	When a player breaks a rule they commit a fault. There are many faults that you will need to watch out for when umpiring.	
Court	The correct name for the playing area in badminton.	
Tramlines	The double lines around the badminton court.	
Service line/box	Badminton courts have a service line and service box.	

Section 2: New Knowledge/Skills

In your Net Games lessons this year you will play some badminton and some table tennis, developing the key skills that you learned in Year 7 table tennis lessons and gaining an introduction to the key points of the game of badminton.

In table tennis you will develop your ability to play competitively against an opponent. In badminton you will be introduced to the basics such as grip stance, backhand, forehand, overarm, underarm as well as the key rules.

Questions:

How many rules of the table tennis serve can you list? How many rules of the badminton serve can you list? What happens in each sport when the serve clips the top of

In each sport, when does the serve go over to the other player?

PE: Gymnastics



Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Flight	Producing gymnastic shapes and movements in the air, with or without assistance.
Apparatus	A piece of equipment used in a gymnastics lesson to enhance safety or enable you to perform skills.
Cannon	Performing skills or actions one after another.
Mirror	Performing skills and actions in time and in opposition.
Vault	A gymnastic skill performed using apparatus such as a box, buck or horse.
Controlled landing	Landing safely and effectively on 2 feet, having performed gymnastic flight.
L	

Section 2: New Knowledge/Skills

Do you know 3 important safety procedures that we should follow when setting out apparatus in a gymnastics lesson?

Can you explain what the following pieces of apparatus are used for and how we would use them safely? Springboard, trampette, box, buck, bench, gym mat, crash mat, horse...

How should we land after performing flight and give 2 reasons why this is so important?

Can you explain or demonstrate some of the following types of flight? Tuck jump, star jump, straddle jump, pike, through vault, turn, diving roll.

When performing a flight **routine** with a partner we may choose to work in **cannon or mirror**. What is meant by these terms? Could you spot them being used in a lesson?

Can you give an example of assisted flight?

PE: Netball

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
1st Stage Defence	Marking the player
2nd Stage Defence	Marking the ball
Horizontal Band	An area across the width of the court
Held Ball	Holding the ball for more than 3 seconds
Contact	Touching another player
Obstruction	Standing less than a metre away from a player with the ball
Free Pass	A method of restarting the game after a player has broken a rule.
Penalty Pass	A method of restarting the game after a player has committed a foul against another player - the player who committed the foul stands by the stand of the player taking the pass.

Section 2: New Knowledge/Skills

Within the netball module you will learn how to:

Play the full 7-a-side version of the game. You will learn the names, roles and the areas of the court each playing position can gc in. Be introduced to some new rules - held ball, obstruction,



contact & **over a third** and how the game is re-started after these rules have been broken. Do you know the difference between a **free** and **penalty pass.** What are these awarded for?

Perform a range of dodges (**sprint**, **change of direction** and **feint**) in order to get free from a defender.

Perform the correct shooting technique & develop movement within the shooting circle to create space & receive the ball

Use horizontal bands to create space on the court in order for your team to keep possession of the ball

Switch from 1^{st} and 2^{nd} stage defence. Know when to do this and why it is important .

PE: Hockey

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Possession	Keeping control of the ball as a team by passing it or dribbling it and not letting the other team get it.
Stickwork	Being able move your hockey stick quickly to control, dribble and turn with the ball, making it difficult for defenders.
Self-pass rule	When re-starting the game, remember that you can dribble the ball as well as pass it.
Shooting circle	The semi-circle in front of goal. You need to be inside it to take a shot.
Give-and-go	A quick way to get the ball up the field: pass to a teammate, run up the field and they give you the ball back.
Dodging	Trying to dribble past a defender in a one-on-one situation.
Deception	When dodging, make the defender think you are going one way, then go the other!
Passing angles	Make sure there is a clear line between you and your teammate in order to make a pass.
Formation	Arranging your team into roles such as defence, midfield and attack so that all areas of the pitch are covered.

Section 2: New Knowledge/Skills

In this year's hockey unit you will continue to develop your individual skills but there will be more focus on working as team.

Stickwork will be an important part of your effectiveness as a player - quick and accurate control so you don't get tackled.

Keeping **possession** as a team will now become essential in order to create more goals and we will explore ways to link passes with teammates such as **creating passing angles** and using the **give-and-go**.

In games, we will start to get some team organisation and look at how to play in ${\bf formation.}$

PE: Swimming



Section 1: Key	Vocabulary
Tier 3 vocabulary	Definition
Speed	This obviously means going as fast as you can, but we need to recognise it at as the opposite of endurance. You cannot go fast for very long.
Endurance	The ability to keep swimming for a long period of time, but not particularly fast.
Efficiency	A smooth technique can help you move through the water with less effort, increasing both your speed and your endurance.
Breathing	It sounds obvious again, but a smooth and regular breathing pattern can improve the efficiency of the stroke.
Straddle entry	A safe way to enter deep water in an emergency situation. Your face should stay out of the water.
HELP position	Heat Escape Lessening Posture - take up this position to stay afloat in a survival situation.
Surface dive	Diving underwater from the surface of the water.

Section 2: New Knowledge/Skills

In Year 8 swimming, we will be looking at ways to measure and improve the **efficiency** of our strokes. This will help both our speed and endurance.

We will explore how to start widths efficiently to gain maximum momentum, including sitting and standing dives. We will also look at efficient turn technique such as the tumble turn.

In **personal survival** we will try some tougher challenges such as the **straddle** entry into deep water, head-first and feet-first **surface dives** and endurance swimming. We will also have a go at swimming with clothes on.

In water-polo we will play the full-version of the game with goals, goalkeepers and a range of rules.

PE: Rugby

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Tackle	Wrapping your arms around a players legs to try to bring them to the ground.
Breakdown	The point at which the attacking teams forward progress is stopped, usually by a tackle.
Recycle	After the breakdown, the attacking team try to set up for another attack.
Ruck	After a player is tackled and the ball is placed on the floor, the teams compete for the ball
Maul	When a player with the ball stays on their feet in the tackle and players arrive to compete for the ball.
Line-out	The forwards of both teams line up for a throw-in from the touchline.
Scrum	The restart after a forward pass or knock-on where the forwards bind together to push over the ball.
Offside	Players must always stay on their own team's side of the ball.
Forwards	Players who usually use their size and strength to win the ball for their team and make ground up the pitch.
Backs	Players who use their speed and skill to avoid being tackled and to get the ball up the pitch.
Scrum-half	Collects the ball from the forwards and passes to the backs.

Section 2: New Knowledge/Skills

This year will see a move to contact rugby and you will first learn the key points of safe and effective tackling.

This will then be transferred to game situations where we will introduce many of the roles and rules mentioned in the table above. You will work towards becoming either a forward or a back depending on the personal and physical qualities you offer your team.

PE: Football

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Possession	The team or player in control of the ball.
Formation	Players plan and perform in set positions in the game.
Width	Using the sides of the playing area.
Depth	Using the ends of the playing area.
Distribution	Making good decisions about how and where to send the ball.

Section 2: New Knowledge/Skills

You will be encouraged to demonstrate a good ready position, to prepare for action. This will include outfield and goalkeeping roles.

Continue to demonstrate passing, dribbling and control skills to keep possession. Have you been able to use your left and right side to do this?

When we perform in small sided games you will be using basic positions in a formation. These are defence (including goalkeeping), midfield and attack.

,	
Position	What do you need to do in this role?
Goalkeeper	
Defender	
Midfielder	
Attacker	

List three actions that are needed when you are a team captain?

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 8 Autumn 2

Art: African Art



Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Scarification	Scratching, etching, burning, branding, or superficially cutting designs into skin.
Fragmented	To break or cause to break into pieces
Tonal bar	A way of demonstrating a tonal range
Ombré	Ombré is the blending of one colour hue to another, usually moving tints and shades from light to dark
Proportion	How the sizes of different parts of a piece of art or design relate to each other.
Symmetry	When two halves of a work of art mirror each other
Press print	Thin polystyrene printing sheets
Gradient	A gradual blending from one tone to another tone
Elongate	To stretch out of proportion lengthwise

Tier 2 vocabulary	Definition
Carving	The act of using tools to shape something from a material
Blend	The gentle transition from one tone or colour to another
Texture	How something feels e.g., rough or smooth
Detail	An individual or small part of an item
Highlight	The lightest parts of an object, drawing or painting. Where the light hits or reflects off an object.
Distort	To stretch out of proportion

Section 2: Observational drawing

You are going to make a drawing of an African mask - this is called first-hand observational drawing. It is important you draw lightly and carefully using a 2B pencil.

Initially you are learning about what your mask looks like.

Look closely at your mask -

What shape is it?
Is it symmetrical?
Where are the eyes positioned?
How long is the nose?
Does it have hair or ears?
What sort of a mouth does it have?
Are there any other details? Headdress? Facial markings?
You are now going to start your drawing.

- 1. Lightly draw a **straight line** down the centre of your mask photograph and repeat this on your blank page, using a ruler. This will be the centre of your mask. This is a construction line so don't press on as you will be rubbing these out later!
- 2. Lightly draw the **outline** of the main mask. Ignore any bits that are add-ons. (headdresses or ears) Is your mask symmetrical? If so copy over the shape.
- 3. Now add headdresses, ears, to the outer shape. Don't add facial details yet, you are only looking at the main outline..... remember to sketch lightly, as these may need to be moved.

Now you are going to place the facial features – the eyes, nose and mouth. Remember to sketch these lightly, as your first attempt may not be correct.

Start by placing the eyes. Notice on this mask the eyes are central to the main head shape. Study your mask and decide where, and how big your masks eyes are. Now lightly draw in where you want them to go using construction lines.

Use **construction lines** to help you place all of the main facial features now – as shown on the photo. So how low does the nose drop below the eyes? How far is it to the centre of the lips?

Section 2: Adding tone

Tonal bar you are going to draw out a tonal bar to practice adding tone first



Below is a drawing of An African mask. You can see all of the line work is done and the artist has started to add tone using a shading pencil. Use a **4B or a 6B pencil** for your shading. Before applying tone to your drawing, draw up a **tonal bar** somewhere at the edge of your page.

Use a ruler to draw the grid. Then carefully and smoothly fill in the tones from darkest to lightest using your **4B or 6B pencil**. You should look to use each of these tones in your drawing.

Important- Before adding any tone to your mask, rub out any construction lines.

Now, using the full range of tones, start to apply shading to your mask drawing.

Start by looking hard to spot the darkest areas. Compare your darkest areas – are they equally dark or is one darker than the other?

Start with your darkest tone. Decide where you are going to start and gradually apply this dark tone to your drawing.

Apply this same dark tone to the mask drawing where you feel it should be.

Now look at how this tone changes as the shape of the mask changes. Look carefully to see how the tones **blend** from dark to light carefully and **smoothly**.

Dark, mid and light tones can be found all over the mask where the light and shadows fall.





Art: African Masks



Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Scarification	Scratching, etching, burning, branding, or superficially cutting designs into skin.
Fragmented	To break or cause to break into pieces
Tonal bar	A way of demonstrating a tonal range
Proportion	How the sizes of different parts of a piece of art or design relate to each other.
Symmetry	When two halves of a work of art mirror each other
Pressprint	Thin polystyrene printing sheets used for printing
Easel	A frame for holding an artist's work or an object while it is being painted or drawn.
Gradient	A gradual blending from one colour to another colour
Elongate	To stretch out of proportion lengthwise

Tier 2 vocabulary	Definition
Carving	The act of using tools to shape something from a material
Blend	The gentle transition from one tone or colour to another
Texture	How something feels, e.g. rough or smooth
Detail	An individual or small part of an item
Highlight	The lightest parts of an object, drawing or painting. Where the light hits or reflects off an object.
Distort	To stretch out of proportion

Section 2: New Knowledge

Cubism - A term applied to a group of artists working in a particularly inventive, new way starting in 1907. Influenced heavily by African art, they brought different views of subjects (usually objects or figures) together in the same picture, resulting in paintings that appear fragmented and abstracted.

Artists

Pablo Picasso George Braque Juan Gris Paul Cezanne

Context - In 1907 Pablo Picasso, George Braque and other European artists visited an exhibition of African Art at an exhibition at the Ethnographic Museum of Trocadero in Paris. There they saw a large amount of African art and craft items including masks, sculptures and fabric. They saw African Art for the first time and were inspired by what they saw.

They began to incorporate African influences in their own work. They were inspired by the stylised and distorted faces and the expressive power of the tribal artwork on show.

One of the earliest and most important pieces of work influenced by African Art was by Pablo Picasso and is called **Les Demoiselles D'Avignon** and was painted in 1907. This piece, marked a radical break from traditional composition and perspective in painting. It shows five naked women painted as flat, splintered surfaces whose faces were inspired by African masks. The cramped space in which they stand together appears to push forward in jagged shards.

Another painting by Picasso which demonstrates how African art influenced the cubist style of painting is called **Nude with Drapery** and was painted in 1907. The head and figure in this painting are simplified, elongated and have harsh markings resembling a deeply carved wooden surface.

Section 3: Techniques

African Fabric

For centuries African artists have used the tie dye technique to produce vivid fabrics for garments and home decor.

The Process Fabric + dye

The process starts with a base fabric, intricate patterns are deftly created by winding or tying string or small strips of grass to form a resist. After a cloth is fully tied it visits the dye bath where the tied areas form a resist against the new colour. The string or grass is left wrapped around the areas of fabric and then released once the fabric has dried.

Printing artists

Kate Watkins –Watkins first discovered printmaking while studying for a Fine Art degree at Leeds University during the 90's but returned to it over 20 years ago while attempting to find balance with her job as an art and photography teacher in Hampshire.

Other famous printing artists include – John Muafangejo Charles Nkosi Azaria Mbatha

To view the work of Kate Watkins, visit

To view a range of African artefacts, visit

www.katewatkins.co.uk/



www.quaibranly.fr



Year 8 Autumn 2 Art: Birds



Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Hyperrealism	A genre of art in which the work is of such detail that it resembles a photograph.
Burnishing	A colour pencil technique that is achieved by layering with more and more pressure until there's no sign of paper underneath and a sheen is created from the pencil wax.
Illustrator	A person who draws or creates pictures for magazines, books, advertising, etc
Zentangle	A form of meditative art that involves creating intricate designs using repeated patterns that together form the structure of a subject.

Tier 2 vocabulary	Definition
Tone	Refers to how light or dark a colour is. Each colour has an almost infinite number of tones.
Gradient	A process of transitioning a tone from light to dark or dark to light.
Blending	A process of layering two or more colour pencils together to create new colours and transitions of colour.
Flat wash	Paint that has been thinned or diluted making the paint less vibrant and semitranslucent.
Underpainting	The application of a flat wash of colour to start a piece of work before layering materials such as colour pencil over the top.

Section 2: Artists and techniques



Ian Macarthur is a renowned artist / illustrator from Swindon, England. He has achieved fame across the globe for his zentangle inspired patterns often depicted on the surface of humans and animals.

- 1. Draw the basic outline of a bird's head.
- 2. Break the bird down into key shapes.
- 3. Create your own Ian Macarthur inspired patterns inside those shapes considering the curves over the bird's face (no patterns in the eyes and beak, just tone)
- 4. Make your design symmetrical.
- 5. Use black pen to go over and shade your design.

Mark Powell is a well know fine artist from Yorkshire. He is most famous for his depictions of people and animals in biro pen on the surface of found, used paper materials such as envelopes, postcards, maps, and old documents



- 1. Find and old, used, discarded paper; the more interesting the better.
- 2. Draw the basic outline of a bird on the surface considering its placement on the document.
- 3. Shade your bird using a black biro focussing on the shadows and leaving highlights. Practise applying different levels of pressure with biro to make a gradient like below. The less scratchy your marks the better.



Section 2: Artists



Amy Holliday is well known for her depictions of birds using vibrant watercolour splashes. She allows her colours to bleed, creating new smooth blended areas, before working over key details such as the eye, beak and feet using a fine-liner pen. Holliday currently lives and works in Cumbria, England

Claire Brewster is a British papercut artist from Lincolnshire. Her process involves intricately cutting map paper with a sharp craft knife. She first draws the silhouette of the bird she wants to create onto a map carefully selected based on where the birds are found. Her silhouettes are often presented showing the shadow of the bird cast on a white surface.





Street artist Hua Tunan creates beauty out of chaos. Often seen throwing and splatting paint across the wall. Tunan gradually builds his main shape from these expressive movements. He then will work into the central focus of his work which is the bird's head, often the only section rendered in colour. Tunan was born in Guangdong, China and currently works in Singapore.

Music: Exploring Performance



Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Hook	A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece.
Riff	A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. RIFFS can be rhythmic, melodic or lyrical, short and repeated.
Ostinato	A repeated musical pattern.
Triad	A chord of three notes; usually made up of notes 1, 3 and 5 of the scale
Chord Progression	A set of chords played in a particular pattern.
Scale	A series of notes played in order, ascending and descending.

Tier 2 vocabulary	Definition
Harmony	Two or more sounds played simultaneously. The notes within the chord
Melody	A combination of pitch and rhythm. Often the main tune.
Rhythm	A combination of different note values to create a pattern.

Section 2: New Knowledge/Skills

Hooks and Riffs

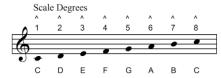
Repeated patterns are used in all genres of music. It is by repeating musical ideas that composers create cohesive pieces of music. In classical music we call these repeated patterns an **ostinato**. In popular music these are referred to as either **hooks** or **riffs**. It is these hooks and riffs that create a memorable piece of music.

Repetition in Music

Scales

A scale is a series of notes played in order. A common type of scale is the **major scale**. This is constructed from a pattern of **tones and semitones**. By using this pattern we are able to work out the notes in any major scale.

Tone, Tone, Semitone, Tone, Tone, Semitone TTS, TTTS



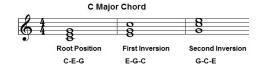
Chords

A chord is a set of notes played at the same time. A **chord** constructed of three notes is called a **triad**. A **triad** uses notes one, three and five of the scale.

Section 3: Other/Previous Knowledge/Skills

Chord Inversions

Inversions refer to the order in which we play the notes of a triad. Sometimes by changing the order we play the notes; it makes it easier to play on the keyboard.



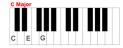
The Four Chord Trick

This is a simple **chord progression** and has been used by many artists over the years to create their music.

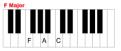
The chord patterns uses chords **1 6 4 5**These numbers are referring to the chords as they appear in the scale order.

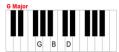
In C major:

- Chord 1 = C
- Chord 6 = Am
- Chord 4 = F
- Chord 5 = G









QR Link to Music Theory Rocks video on triads



Section 1: Key Vocabulary		
Tier 3 vocabulary	Definition	
Abstract Still Image	Used to represent people or objects and even abstract concepts like emotions or atmospheres.	
Physical Theatre Sequence	A rehearsed range of movements, which have a fluid quality and a physical self-discipline.	
Proxemics	Proxemics is the use of space/distance between characters on stage. This can represent the relationship between characters	
Director	A director is responsible for the overall creative vision of the show.	
Production Concept	The production designer works closely with the director to establish a shared vision for the piece and then they are responsible for every area of design. This can also encompass other areas of design, such as film and multimedia.	
Flocking	The technique is used to develop ensemble skills, improve spatial awareness, and practice the ability to connect and move in unison through shared, non-verbal leadership.	

Tier 2 vocabulary	Definition
Interpretation	Choices you make about the way to play the scene are called the interpretation.
Status	Status is the level of power or influence a character has.
Character	A person in a novel, play or film.

Section 2: Who is Caliban?

Sycorax, a witch, was abandoned on the island and gave birth to a son, Caliban. When she died, he was left alone on the island with only the invisible spirits for company. When Prospero and Miranda arrive on the island, Caliban lives with them as part of the family but when Prospero catches him about to sexually assault Miranda, he throws Caliban out and treats him as a slave. Caliban wants revenge on Prospero but is afraid of his magical powers. When he meets Stephano, Caliban believes the drunken butler can kill Prospero and become a better master to him. He tries to lead Stephano to kill Prospero, but Ariel and Prospero defeat his plans.

Facts we learn about Caliban at the start of the play:

- The son of a witch, he was born on the island and lived there alone for a long time.
- He helped Prospero and Miranda to survive on the island.
- He hates Prospero for treating him like a slave.
- He has never tasted alcohol before and thinks Stephano must be a god for owning it.

Section 3: Ariel's Song

Ariel's Song

Ariel

Full Fathom five thy father lies, Of his bones are coral made; These are pearls that were his eyes; Nothing of him that doth fade, But doth suffer a sea-change Into something rich and strange. Sea-nymphs hourly ring his knell

FERDINAND

The ditty does remember my drowned father This is no mortal business, nor no sound That the earth owes. I hear it now above me.

From Act 1 Scene 2

"Full Fathom Five": This song is used to enchant Ferdinand and establish the island's magical atmosphere after the shipwreck.

Meaning: It tells Ferdinand that his father is dead, but describes his body's "sea-change" into valuable sea treasures like coral and pearls.

Effect: It mixes grief with a sense of otherworldly beauty, making the idea of death less horrifying and more magical.

Lie: Ariel is lying; the King of Naples is not dead, but this song is used to separate Ferdinand from his father and confuse the men.



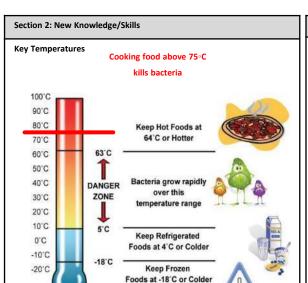
The assessment, this term uses the technique of 'flocking.' The QR code takes you to a video from the National Theatre. This is a practical demonstration of the technique.

Year 8 Rotation 1 Autumn 2

Section 1: Key Vocabulary		
Tier 3 vocabulary	Definition	
Pathogenic bacteria	Harmful bacteria (can cause Food Poisoning)	
Raising Agent	Can be biological (e.g. yeast) or chemical (e.g. baking powder) - methods of introducing bubbles to create light texture.	
Fermentation	When yeast has the correct conditions it will produce carbon dioxide.	
Reduction Sauce	Flavours in a liquid sauce become more intense when the water content is reduced through evaporation	
Core Temperature	The central temperature that meat should reach to ensure that it is safely cooked.	
Preservation	To keep something for longer without it decaying or deteriorating	
Gluten	A stretchy protein which gives bread dough the capacity to expand as yeast produces carbon dioxide. (Some people who have coeliac disease cannot digest.	
Hypothesis	Prediction of results	
Enzymic browning	An oxidation reaction (usually in fruit and vegetables) which causes browning	

Tier 2 vocabulary	Definition
Cross Contamination	Transfer of bacteria or an ingredient which can cause allergies from one place to another
Dough	Thick paste which can be shaped and moulded (e.g. pastry / bread)
Knead	Action of folding and stretching dough to develop gluten strands
High Risk Foods	Foods which have a high risk of carrying food poisoning
Prove	Leaving dough in a warm place to give the yeast time to produce carbon dioxide

D&T Food: Booklet 1



The temperature of a domestic fridge should be 1-5°C

The temperature of a freezer should be -18°C The core temperature of meat should reach 75°C The danger zone is the temperature that is perfect for bacterial growth -it is between 5°C -63°C

Making bread

Strong plain flour is used as it contains a lot of **gluten** (a protein which becomes stretchy when **kneaded**)

Yeast is a microorganism which produces CO2 when given warmth, moisture, food and time to grow.

The stretchy gluten in the **dough** can expand around the CO2 bubbles creating a light airy texture

BELPER SCHOOL and Sixth Form Centre

Section 3: Other subject specific things

What Conditions Do Bacteria Need To Grow?

Warmth, Moisture, Food, Time

Who is most at risk of Food Poisoning?

Babies and toddlers, very elderly frail people, pregnant women, people who are already seriously ill or who have a compromised immune system.

Examples of high risk foods are:

Meat and meat products, Fish (especially shellfish), poultry, eggs, dairy products & reheated rice

Some Names of Bacteria	Where they are found
Salmonella	Chicken & Eggs
Staphylococcus aureus	Humans & animals, skin / hair
Bacillus cereus	Reheated rice
E. coli	Animals / meat, unpasteurised milk / unclean water
Campylobacter	Animals / meat especially poultry

Year 8 Rotation 1 Autumn 2

Section 1: Key Vocabulary		
Tier 3 vocabulary Definition		
Embroidery	Decorating fabric using thread and a needle to create a pattern	
Fleece	A soft, warm, knitted fabric.	
Non Woven Fabric	Fabric created by bonding fibres together using pressure, heat or adhesive	
Knitted	Fabric created with rows of loops that interlock with each other	
Sequin	A decorative, reflective piece of plastic that can be sewn onto a product	
Button	A component that is sewn onto a textile item for decoration or functional purposes. Can be many different shapes, sizes and colours.	
Tailors Chalk	A thin, triangle shaped chalk that is used to mark fabric.	
Back Stitch	A stitch that can be used for decorative purposes or to secure stitches at the start or end of seam.	
Oversewing	A stitch where the thread goes over the edge of the fabric to hold the pieces together securely and neatly.	

Tier 2 vocabulary	Definition
Sculpture	A 3D form, can be made from many different materials.
Template	A paper shape that shows the exact size of fabric that needs to be cut out

D&T Textiles: Fabulous Felt Food



Section 2: Skills

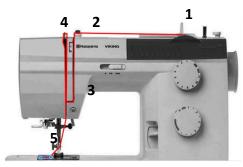
Manufacturing Process

- 1. Draw the packing to scale
- Label the different fabrics/decoration skills you will use.
- Trace templates from your drawing for each of the pieces you will need to cut from fabric. Cut out.
- Place the templates onto the fabric. Hold in place with pins or draw around with Tailors chalk/pencil.
- 5. Carefully cut out fabric shapes
- Pin the fabric shapes together to match your drawing.
 Sew together using hand or machine skills
- Sew the front and back together, leaving a gap on one side.
- E. Fill the design with stuffing and hand sew the gap.
- Add details with 3D puff paint or embroidery.

How to thread the top of the sewing machine

Knowing how to change the top thread on the machine is essential in making your work look neater. It allows you to match the colour of the thread to the fabric you are sewing. The sewing machine has numbers and lines on it to show you how to thread the top of the machine. Use them alongside this diagram to help you change the thread successfully.

Remember to pull the balance wheel out before you start to ensure you are safe. Pulling the balance wheel out stops the needle from moving if you accidentally put your foot on the pedal.



If you need to change the bobbin you should as your teacher for help.

Section 3: Knowledge

Lucy Sparrow

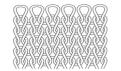
Lucy is an artist who creates soft sculptures from felt. Her most famous piece was an installation of a supermarket where everything was made from felt.

She recently made an instillation for Buckingham Palace! To celebrate the Queen's Jubilee she made a full afternoon tea with every part made from felt.

The work of artists can be a very interesting starting point for a project.

Knitted Fabric

Knitted fabric is created by looping yarn in rows. The structure of the fabric means that it has a built in amount of stretch.



Fleece is a knitted fabric. Knitted

fabrics are commonly used in garment production as it is comfortable due to the fabric being able to stretch with your body as you move, resulting in comfortable clothes.

Non Woven Fabric

Non woven fabric is created by fibres that have been layer over each other in different directions. These fibres are Bonded together using adhesive, heat



or friction. The resulting fabric is not very useful for garment production but is used for disposable medical clothing, such as the face mask you may have worn during the pandemic.

Creating 3D shapes in Felt

You will select a piece of packaging to recreate in felt for this project. To do this you will need to think about how the shapes will be made up, for example:

This cereal packet would need to be made from.....



X2 Rectangles for the base

X2 Rectangles for the front

X2 Rectangles for the side

Year 8 Rotation 1 Autumn 2

D&T Product Design :- Mechanical Cam Toy



Section 1: - Key Vocabulary Tier 3 Vocabulary Cam A shaped profile which transfers rotary movement to another form of movement in a new direction A cylinder which carries the cams and is Cam Shaft rotated Cam A cylinder which rests on, and follows the Follow movement of the cam profile Lap Joint A simple corner joint which increased the glued surface area An interlocking corner joint used to increase Comb the gluing surface are and appearance Joint Technique used on 2D design to create an Image Contour outline of an image Laser Machine used to accuracy cut and engrave Cutter wood and some types of plastic

Tier 2 Vocabulary Mechanism A system of joined moving parts designed to transfer or change an input movement into a new output movement Reciprocating Moving back and forth in a straight line Rotary Movement in full circles Movement in a straight line in one Linear direction **Design Brief** A context used to define a problem which requires solving CAD Computer Aided Design – Software used to design a product Computer Aided Manufacture - A CAM machine which is controlled by a computer

Section 2: Skills

Bench Carpentry



Lap Joint – A method of using a tenon saw, mallet and bevelled edge chisel to remove ½ the thickness of the one part wood to create a larger gluing surface areas.



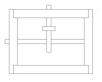
Comb Joint— A method of using a tenon saw, coping saw, mallet and bevelled edge chisel to remove 'fingers' of wood which can be interlocked and glued for strength, stability and appearance.

Pillar Drill



Drilling is a wastage procedure
When drilling all the way through a piece of
wood the drill should be set at a lower speed,
and the work piece should be clamped in place
with a G Cramp. A piece of 'sacrificial' wood
should be place below the work to stop any
splintering

Mechanism assembly and testing



Cam profiles are attached the to the cam shaft, the cam follower rests on top of the cam profile. The cam should rotate at constant rate to produce the desired outcome movement of the follower, without it wobbling or jamming

Practical Problem solving

When designing new products it is common to have problems along the was. Apply 3B4me rule to independently solve you problem. Try 3 methods of solving the problem before asking the teacher for support. (Ask a friend who has already solved it, look at a teacher example, have a go)

Graphics application



Be able to apply paint to wood using a range of techniques, including brush, toothbrush splatter, sponge, and Pen pens







Section 3:- New Knowledge

Design Briefs

Product design often happens as a result of a problem arising. Be able to analyse a problem, then write a design brief which will guide the develop if ideas to solve the problem

Types of movement



in one

direction



Movement in a straight line back and forth



Oscillating Movement back and forth in an arch



Rotary Movement in a continuous full circle

Cam mechanisms





Eccentric Cam - Smooth movement up and down





Snail Cam – Fast, smooth movement up, followed by a drop back down

2 CAD Software - Contouring





Using CAD software to convert a Black and white JPG image into a outline DXF image which a laser cutter can then engrave

Section 4:- WAGOLL





31

PSHE: Relationships Unit 1



Section 1: Key Vocabulary		
Tier 2 vocabulary	Definition	
Stereotyping	An often unfair and untrue belief that many people have about all people or things with a particular characteristic	
Characteristic	A feature or quality belonging typically to a person, place, or thing	
Toxic	Very harmful or deadly.	
Online Safety	Being aware of the possible threats that you could encounter whilst engaging in activity on the internet.	
Active Listening	Is a communication skill that involves going beyond simply hearing the words that another person speaks.	
Negotiation	The process of discussing something with someone in order to reach an agreement with them	
Compromise	An agreement or settlement of a dispute that is reached by each side making concessions	
Integrity	The quality of being honest and having strong moral principles.	

Tier 3 vocabulary	Definition
Protected Characteristics	Protected characteristics are specific attributes safeguarded against discrimination under the Equality Act 2010.
Minority	Any small group in society that is different from the rest
Descrimination	The unjust or prejudicial treatment of different categories of people, especially on the grounds of ethnicity, age, sex, or disability.
Prejudice	Preconceived opinion that is not based on reason or actual experience.

Section 2: Key Themes:

Stereotyping: Understanding ways people are stereotyped, the effect this has on the individual and techniques to avoid stereotyping someone.

Changes & Breakdowns of Relationships: The ways in which relationships change and breakdown over the course of our life, how we deal with this and how you can get support.

Healthy vs Unhealthy Relationships: The signs to look out for that indicate a healthy and unhealthy relationship, what to do in this situation and who you can talk to.

Maintaining Healthy Relationships: What a good and bad relationship looks like, behaviours that good and bad friends exhibit and maintaining healthy and safe relationships online.

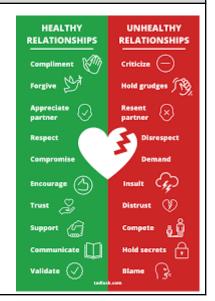
Our Influence & Peer Influence: How the people around us can influence our behaviour both positively and negatively, understanding the term peer pressure and how this can impact us online as well as in real life.

Communication & Positive Relationships: The fundamentals of healthy communication and how important these are in all different types of relationships, such as; family, friendships and more intimate relationships.

Section 3: Key concepts:

Protected Characteristics







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

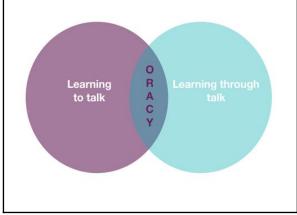
This how you use appropriate vocabulary choices, register, grammar, and rhetorical techniques such as questions and humour.

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 Revising: Planning: Drafting: Editing: Sharing: Making Generating Writing Making Presenting changes in work for the down key changes to ideas. light of ideas, setting ensure target feedback audience. setting out writing is goals, and selfgathering a structure accurate evaluation. Information. for writing and coherent. checking spelling and grammar.

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, 8 & 9 Table tennis club with Mary
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)	
Year 10/11 Table tennis and badminton club with Tom	Chess with Dan (M2)	Student Leadership Group (week 2) with John	Year 7 & 8 Games club with Emma (library)	
	Year 11 Inter-tutor football competition with James and Matt (3G)	Year 8 Dodgeball competition with Tom	Belper Choir with Anna (music rooms)	
		Model Railway Club with Phill (T2)	Year 7 Multi-sports club with Matt	
		Textiles Club with Sarah (T1)		





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)		KS4, 5 and Staff Friday Sports Club with Matt, James, Tom & Leanne
Music Club with Phil (music rooms)	Year 9 Inter-tutor Basketball competition with James	Film Club with Becky (for students in Yr8 or above) (E6)		
Year 7, 8 & 9 Football club with Matt, James & Tom		Pride Club with Karen (T5)		
Year 9,10 & 12 Sports Leaders Events		Year 9 'Your Time' Leadership Programme with Rebecca and Matt		
Robot Club with Sarah (T1)				



