

June - July

Year 9

**KNOWLEDGEABLE
AND EXPERT
LEARNERS**



Self
Quizzing

Flash
Cards

Mind
Maps

Brain
Dumps

enjoylearn**succeed**

INDEPENDENT LEARNING BOOKLET

NAME:

TUTOR GROUP:

CONTENTS

- Using Class Charts Instructions
- Accessing SENECA
- Independent Learning log
- The Core 4 instructions
- Subject Knowledge Organisers

You will need an A4 application booklet.

HOMEWORK:

- Your teacher will set subject specific tasks, with a deadline, on Class Charts.
- You must complete and hand in the work by the deadline

INDEPENDENT LEARNING EXPECTATIONS AND REWARDS:

- You should complete 3 tasks throughout the week (20 minutes on each task)
- The tasks will be set on Class Charts to help you keep track of what you need to do.
- You must bring your ILB and application book to school every day.
- You can choose the subject/topic you want to work on.
- Your tutor will check your ILB regularly to see how you are getting on.
- You will be rewarded for going above and beyond expectations.

SUBJECT KNOWLEDGE ORGANISERS CONTENTS

Subject	Page No.
English	8
Computer Science	9
Maths	10
Science	11-16
French	17
German	18
Geography	19
History	20-21
RE	22
PSHCE	23
Art	24
Performing Arts	25
Product Design	26
Design & Technology; Food	27
Textiles	28
Music	29

USING CLASS CHARTS



All of your homework will be set by your teachers using the Class Charts System. You should check Class Charts every day to make sure you are up to date, and that you meet all your deadlines. Below, shows you how to log on and track your homework.

Logging in to Class Charts

1. Enter your email address and password into the fields provided

Access code *
Your access code

Please enter the access code supplied by your teacher.

Remember me

2. Click on the Log in button

LOG IN

3. Enter your date of birth if prompted and click on the OK button

Date of birth

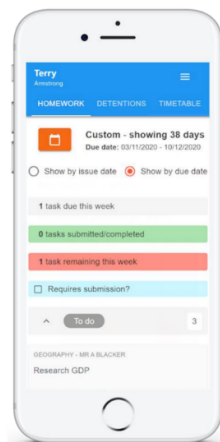
Please enter your date of birth below.

Date of Birth
12/06/2009

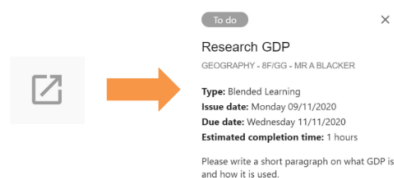
OK CANCEL

Homework

- Select the homework tab on our account.
- This will display a list of the homework tasks which you have been given.
- To change the date range for displayed homework tasks, click on the orange Date button.
- To display tasks in the order they are expected to be handed in, click on the Due date button.
- To mark a homework task as completed, view the homework task of your choice in more detail and tick the Completed checkbox.



To view a homework task in more detail, click on the expand icon in the bottom right hand corner of the homework tile. A popup will appear that contains the a description of the homework task, the estimated completion time and any links or attachments that may have been included.



Keeping track of homework

To track your homework use the three banners above the homework status. This shows the the number of homework tasks that are due that week, how many of those tasks you have completed and how many tasks you still need to complete.

1 task due this week

0 tasks submitted/completed

1 task remaining this week

To only see homework tasks that require an attachment submission, tick the checkbox labelled Requires submission.

Requires submission?

If you are viewing the Homework tab via a desktop or laptop, expanding a homework status category will display a table overview of each homework task for the selected date range.

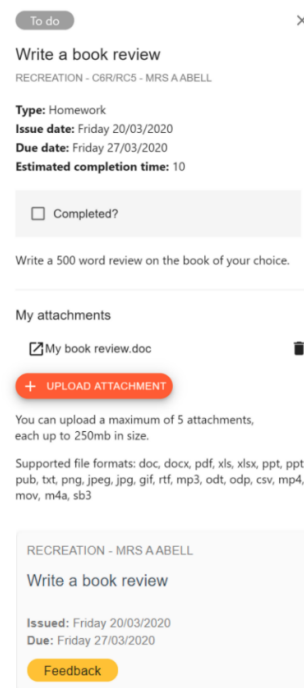
To do 3								
Homework	Teacher	Lesson	Issued	Due	Estimated time	Type	Feedback	
<input checked="" type="checkbox"/>	Research GDP	Mr A Blacker	8F/Gg	Monday 09/11/2020	Wednesday 11/11/2020	1 hours	Blended Learning	
<input checked="" type="checkbox"/>	Write a soliloquy	Mr J Kato	8y/En2	Tuesday 10/11/2020	Tuesday 17/11/2020	30 minutes	Homework	
<input checked="" type="checkbox"/>	Create a poster on French food	Mrs A Abell	7YEL/Fr	Friday 06/11/2020	Thursday 19/11/2020	45 minutes	Homework	Feedback

Homework attachment submissions

For certain homework tasks, you may be asked by your teacher to upload your work as an attachment. When viewing a homework task in more detail, you will see the Upload attachment button if your teacher is expecting your work to be uploaded. To submit a homework attachment, click on the Upload attachment button and select the files of your choice. Successfully uploaded files will then appear above the button

If your teacher leaves feedback on one of your homework attachments, you will see a Feedback icon appear on the associated homework task.

To view the feedback, click on the expand icon in the bottom right hand corner of the homework tile. Your teacher's feedback will appear directly below your homework attachment



To do

Completed

Submitted late

Not submitted

Submitted

To-Do: These are homework tasks that you need to complete. Once you have completed them, tick the checkbox

Completed: These are homework tasks that you have ticked as completed but have not been marked by your teacher

Late: These are homework tasks that have been handed in past the deadline.

Not submitted: These are homework tasks that were not handed in on time.

Submitted: These are homework tasks that have been handed in on time.

HOW TO ACCESS SENECA



Seneca learning is a free online platform that will help you revise for all your subjects.

1.

Go to
<https://senecalearning.com/en-GB/>

2.

Click 'Log In' at the top right hand corner.



Login

Sign up

3.

Select 'Continue with Microsoft'.



Continue with Microsoft

4.

Enter your school email and password.

5.

Select the course(s) you want to work on

If you need any help accessing SENECA please speak to your class teacher, or Miss Holmes.

You can also scan this QR code for a video walkthrough of how to log in as a student

SCAN HERE



INDEPENDENT LEARNING LOG

THE CORE FOUR




Expectation this ½ term: Choose any of the Core 4 strategies, and complete 3 over the week.


- Three tasks should be completed throughout the week, for approximately 20 minutes.
- All Core 4 tasks should be evidenced in your application booklet.
- Use this log to track how what subjects you have done (see example)

Week Beginning	Monday	Tuesday	Wednesday	Thursday	Friday
EXAMPLE:	English: KG1 & 2 (Flash Cards)		History: KG4 & 5 (Mind Map)		Drama: KG 1 & 3 (Self quizzing)
15/06/2026 (3 Tasks Complete)					
22/06/2026 ILB CHECK (6 Tasks Complete)					
29/06/2026 (9 Tasks Complete)					
06/07/2026 (12 Tasks Complete)					


FLASH CARDS - INSTRUCTIONS

- 
Identify knowledge


What are you creating flashcards on?
Look at one knowledge group at a time.

- 
Design


1 Question per flashcard.
Making them clear and concise.
No extended answer questions.

- 
Use

Read the question
Say your answer out loud OR Write your answer down
Check your answer
Quiz yourself on each card at least twice.


- 
Revisit

Resist the questions you got wrong.
Did you just forget? Or make a small error that can be corrected?
Do you need further help from your teacher?


- 
Review

How have you performed when you look back at your answers?
Which flashcards need to be repeated next time?


SELF QUIZZING - INSTRUCTIONS

- 
Identify knowledge


Identify the subject and knowledge groups you are going to cover.
Look at one knowledge group at a time.

- 
Review


Spend around 5 minutes reviewing the knowledge group you have chosen.
Use this time to create questions if you need too.
Read it to yourself
Highlight keywords

- 
Cover and answer

Cover up your knowledge and answer the questions from memory.
Take your time and where possible answer in full sentences.

- 
Revisit

Go back to the content and self-mark your answers in green pen.

- 
Review

Review the areas where there were gaps in knowledge, and self-quiz this area again.

SELF-QUIZZING QUESTIONS

These are taken straight from a knowledge organiser. These are examples of questions in your KO that can help you with self quizzing.

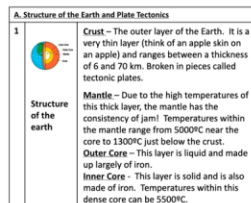
What is happiness?

What is gratitude?

What is vulnerability?

What is courage?

OR




Using your KO, you can create your own questions, such as:

- Structure of the Earth**
1. What is the Crust?
 2. What is the Mantle?
 3. What is the Outer Core?
 4. What is the Inner Core?


You can directly answer these questions in your application book.

MIND MAPS - INSTRUCTIONS


- 
Identify knowledge

Select a topic you wish to cover.
Decide which type of mind map you are creating


 - **Retrieval:** No material
 - **Concept:** Material needed

- 
Topics & Subtopics

Place the main topic in the centre of your page and identify subtopics that will branch off.


- 
Branch off

Branch of your subtopics with further detail.
E.g. Key terms, definitions, examples or descriptions.
Try not to fill the page with too much writing.

- 
Review

Is the information on your mind map accurate?

Green pen: Do you need to add anything?
Green pen: Do you need to correct anything?

- 
Revisit it

Use it to help you prioritise your revision; you can RAG rate it.
Use it to help you summarise the topic, or use your mind map to teach someone else a topic.

BRAIN DUMPS- INSTRUCTIONS

- 
Identify knowledge

Select a topic you wish to cover.
Do you have the resources you need?
Knowledge organisers
Textbooks
Lesson materials

Set your page up and make sure you have the correct equipment

- 
Write it down

Write down everything you can remember about that topic. (with no prompts)
Give yourself a maximum of 5 minutes. This is Quick recall.

- 
Check it

Once complete and you cannot remember any more use your knowledge organiser to check what you have written down.
Use green pen to tick anything correct, or add any information you have missed.

- 
Review

Use your brain dump to:

 - 1 - Identify your strengths
 - 2 - Identify the areas you need to revise
 - 3 - Write down any key areas you missed
 - 4 - Address how you will move forward on points 2 and 3.

- 
Revisit it

Keep your brain dump safe and revisit it.
Use your brain dump to RAG rate your knowledge organiser. This will help you prioritise your revision in the future.

Conventions of a broadsheet article

1	What is formal vocabulary?	Professional and precise language. Avoiding slang or overly emotive words.
2	What is a complex sentence?	Using subordinate clauses to add details to sentences.
3	What is third person?	Keeping the reporting distant from personal opinion or involvement by using "he", "she" or "they".
4	Factual, non-sensational headline	Headlines are straightforward and informative, focusing on the facts.
5	Use of reported speech with a source	Broadsheets often use indirect speech and clearly name the source (e.g. A government spokesperson said that...), making it clear where the information came from and maintaining accuracy.
6	Balanced presentation of multiple viewpoints	Present different sides of an issue, showing a fair and balanced account rather than pushing one opinion.
7	What is the inverted pyramid structure?	Write the most important facts come first, followed by supporting details and background information.
8	Neutral tone	Avoid judgmental or emotional language. The goal is to report news objectively, without showing the writer's personal feelings or political leanings.

Conventions of a tabloid article

1	What is sensationalist vocabulary?	Including subjective language or personal judgement, (e.g. "shameless", "outraged", "disgusting") to influence how the reader feels about the subject.
2	What are short sentences?	Using brief, straightforward sentences to keep the pace fast and easy to follow.
3	What is first- or second-person perspective?	It's common to see first person ("I", "we") or second person ("you") used in headlines, creating a personal connection with the reader.
4	Emotive headlines	Headlines are designed to shock or entertain, They often use puns or exaggeration.
5	Direct speech and unnamed sources	Use direct quotes (sometimes with vague or anonymous sources) rather than formal reported speech,
6	What is bias?	Focusing on one viewpoint or angle, often leaving out counterarguments to push a particular emotional or moral response from readers.
7	Narrative structure	Start with a dramatic or emotional hook, and then fill in the details like a story.
8	Informal and dramatic tone	Use conversational language, along with emotional or exaggerated vocabulary to create drama and excitement.

Inverted pyramid structure

1	Who, What, Where, When and Why	Open your article by covering the most important information of your piece. This is necessary to draw the reader in, and to help them understand what makes this story new.
2	Significance of this article	Why is this information so important? Introduce the most important facts.
3	An important quote	Introduce a quotation (for example, from an expert or a victim) which helps to move the article forward.
4	Further information	Include any further information from your research.
5 ∞	Next steps	Re-establish why this is an important area of study. Suggest that this is just the tip of the iceberg and that further action needs to be taken,

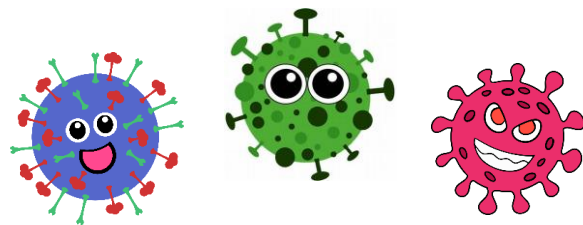
Cybersecurity	
Cybersecurity	Cybersecurity is the practise of protecting computer systems, networks and devices from cyber-attacks.
Importance of cybersecurity	Cybersecurity is important to reduce the risk of cyber-attacks and protect against the unauthorised exploitation of networks and technology.

Methods of Detecting and Preventing Cybersecurity Threats

Biometrics	Biometric security makes use of unique physical characteristics and features to identify people when they are using a computer system. Examples include: scan of a fingerprint, facial recognition, eye or retina scan.
Weak and Strong Passwords	A good password is made up of a collections of characters. It should be at least 8 -12 characters long and should include: uppercase letters, lowercase letters, numbers and a special character.
Captcha	CAPTCHA forms challenge humans to prove that they are human.
Two Factor Authentication (2FA)	Extra layer of security making it harder for hackers to break into your accounts. An example: Enter your password (the first factor), and then also receive a code on your phone (the second factor).

Malicious Software

Computer Virus	A virus is a piece of malware that infects a computer and then replicates itself continuously, infecting multiple files and computers.
Trojan	A Trojan appears to be a piece of harmless software that contains malicious code hidden inside. This only appears once the software is installed. It was named after the Greek myth of the Trojan horse.
Spyware	Spyware is a type of malware that collects the activity on a computer system and sends the data it collects to another person without the owner being aware.
Adware	Adware is software that either causes pop-ups or windows that will not close. Generally, the pop-ups or windows display advertisements.
Ransomware	Ransomware hijacks the data on a computer system by encrypting it and demanding that the owners pay money for it to be decrypted.



Key Vocabulary

Network	A network is a set of computers connected together for the purposes of communication and sharing resources.
Social Engineering	Social Engineering is malicious activities to trick users into making security mistakes or giving away sensitive information.
Malicious Software	Malicious code is software which is written to harm or affect a computer.
Malware	
Hacker	Malicious hackers exploit vulnerabilities for personal gain, such as stealing data, spreading malware, or causing damage

Social Engineering

Phishing	a phishing email will ask a person to send personal details but pretends to be from a business.
Pharming	is a type of cyberattack that redirects a user from a genuine website to a fake one. When a person logs in, it copies their username and password to access their real accounts.
Blagging	is when someone makes up a story to gain a person's interest and uses this to encourage them to give away information about themselves, or even send money.
Shouldering	is looking at someone's information over their shoulder, for example looking at someone enter their PIN in a shop or at a cashpoint.

Number – LCM/HCF																				
1	HCF	<p>Factors of 48</p> <table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>6</td><td>8</td><td>12</td><td>16</td><td>24</td><td>48</td> </tr> </table> <p>Factors of 30</p> <table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>5</td><td>6</td><td>10</td><td>15</td><td>30</td> </tr> </table> <p>The HCF is 6</p>	1	2	3	4	6	8	12	16	24	48	1	2	3	5	6	10	15	30
1	2	3	4	6	8	12	16	24	48											
1	2	3	5	6	10	15	30													
2	LCM	<p>Multiples of 3</p> <table border="1"> <tr> <td>3</td><td>...</td><td>18</td><td>21</td><td>24</td><td>...</td><td>39</td><td>42</td> </tr> </table> <p>Multiples of 7</p> <table border="1"> <tr> <td>7</td><td>14</td><td>21</td><td>28</td><td>35</td><td>42</td> </tr> </table> <p>The LCM is 21</p>	3	...	18	21	24	...	39	42	7	14	21	28	35	42				
3	...	18	21	24	...	39	42													
7	14	21	28	35	42															

Key Vocabulary		
1	Integer	A whole number that can be positive, negative or zero.
2	Factor	A number that divides exactly into another number without a remainder.
3	Multiple	The result of multiplying a number by an integer.
4	Expand	To expand a bracket, multiply each term in the bracket by the expression outside the bracket.
5	Factorise	The reverse of expanding . Factorising is writing an expression as a product of terms by 'taking out' a common factor .

Algebra – Working with symbols

1	Expand and Simplify	<p>Expand and simplify:</p> $2(4a + 2b) - 2(a + 3b)$
2	Expand double brackets	<p>Multiply each term in the second bracket by each term in the first.</p> $(x + 7)(x + 2) = x^2 + 9x + 14$
3	Factorise	<p>The reverse of expanding. Factorising is writing an expression as a product of terms by 'taking out' a common factor.</p> <p>$6x - 15 = 3(2x - 5)$, where 3 is the common factor.</p>

Number – surds		
1	Simplifyng Surds	<ol style="list-style-type: none"> $\sqrt{a} \times \sqrt{b} = \sqrt{a \times b}$ e.g. $\sqrt{2} \times \sqrt{3} = \sqrt{2 \times 3} = \sqrt{6}$ — also $(\sqrt{b})^2 = \sqrt{b} \times \sqrt{b} = \sqrt{b \times b}$ $\frac{\sqrt{a}}{\sqrt{b}} = \sqrt{\frac{a}{b}}$ e.g. $\frac{\sqrt{8}}{\sqrt{2}} = \sqrt{\frac{8}{2}} = \sqrt{4} = 2$ $\sqrt{a + b}$ — DO NOTHING — in other words it is definitely NOT $\sqrt{a} + b$ $(a + \sqrt{b})^2 = (a + \sqrt{b})(a + \sqrt{b}) = a^2 + 2a\sqrt{b} + b$ — NOT just $a^2 + (\sqrt{b})^2$ (see p.18) $(a + \sqrt{b})(a - \sqrt{b}) = a^2 + a\sqrt{b} - a\sqrt{b} - (\sqrt{b})^2 = a^2 - b$ (see p.19).
2	Expanding with surds	

The atom

1	Subatomic particles	Name of particle	Relative charge	Relative mass
		Proton	+1	1
		Neutron	0	1
		Electron	-1	Very small
2	Mass number (Total of protons + neutrons in nucleus) Atomic number (number of protons = no of electrons)			

Electronic structure

1	Maximum number of electrons in each shell Shell 1- 2 electrons Shell 2- 8 electrons Shell 3- 8 electrons
---	---

Practical separation techniques

	Method	Example
1	Filtration-separate insoluble solid from liquid	Separate sand from a mixture of sand, salt and sea water
2	Crystallisation-separate solid from solution	Obtain pure crystals of sodium chloride from salt water
3	Simple distillation- separate solvent from solution	Separate pure water from salt water
4	Fractional distillation- separate mixture of liquids with diff bp's	Separate different compounds in crude oil
5	Chromatography- separate substances(varying solubility)	Separate out the dyes in food colouring

**Models of the atom
(common content with physics)**

1	Pre 1900 Billiard ball	John Dalton- before electrons were discovered atoms were tiny solid spheres
2	1897 Plum pudding	JJ Thompson- Ball of positive charge with negative electrons.
3	1909 Nuclear	Ernest Rutherford-Beam of alpha particles directed at very thin gold foil, most passed through, some deflected by positive nucleus, few reflected back. Result: positively charged nucleus surrounded by negative electrons.
4	1913 Bohr	Niels Bohr- Electrons orbit the nucleus in fixed shells as specific distances
5	Quantum	James Chadwick- Neutrons exist within the nucleus

Key Vocabulary

1	Atom	The smallest unit of matter. Have a radius of approx 0.1nm. Have no overall charge.
2	Element	A substance made up of only one type of atom.
3	Compound	A substance made of two or more elements that have bonded chemically.
4	Mixture	Two or more elements or compounds, not chemically bonded together. Can be separated by physical processes.
5	Molecule	A group of atoms, joined by chemical bonds.
6	Mass number	The sum of the protons and neutrons in the nucleus
7	Atomic number	The number of protons in the atom. Number of protons = Number of electrons
8	Nucleus	The center of an atom, a region where protons and neutrons are located. The nucleus accounts for the atomic mass. Radius= less than 1/10,000 of atom
9	Neutron	A subatomic particle that has no charge. Found in the nucleus.
10	Proton	A positively charged particle in an atom. The number of protons in the nucleus of an atom is the atomic number of an element.
11	Electron	A negatively charged particle in an atom. Found in shells.
12	Isotope	Atoms of the same element with the same number of protons, however a different number of neutrons. This means they have a different mass number.
13	Ion	An atom or atoms that has lost or gained one or more electrons, to become a charged particle. Eg: Na +

Alkali metals (Group 1)

- Very reactive with oxygen, water, chlorine
- Have 1 electron in outer shell.
- Form +1 ions.
- More reactive down group, as outer negative electron further from positive nucleus so more easily lost

Halogens (Group 7)

- Diatomic molecules (pair of atoms)
- 7 outer shell electrons
- form 1+ ions
- Melting and boiling points increase down group
- Decreasing reactivity down group

Metals and non-metals

1	Metals	Left of periodic table	<ul style="list-style-type: none"> • Form positive ions • conductors • High melting and boiling points • Ductile • malleable
2	Non-metals	Right of dark line	<ul style="list-style-type: none"> • Form negative ions • insulators • Low melting and boiling points

Reactions of Alkali metals (Group 1)

1	With oxygen	Metal + oxygen --> metal oxide
2	With water	Metal + water --> metal hydroxide + hydrogen
3	With metal chloride	Metal + chlorine --> metal chloride

Reactions of Halogens (Group 7)

1	With metals	Metal + halogen --> metal halide e.g sodium + chlorine --> sodium chloride
2	With hydrogen	Hydrogen + halogen --> Hydrogen halide e.g. Hydrogen + bromine --> hydrogen bromide
3	Displacement	A more reactive halogen will swap places with a less reactive halogen in a compound.

Noble gases (Group 0)

1	Unreactive, do not form molecules	Due to having full outer shells of electrons
2	Bp's increase down group	Increasing atomic number

Key vocabulary

1	Periodic table	A chart that shows the elements arranged in order of atomic number, along with chemical symbol and the average atomic mass (in atomic mass units) for that particular element.
2	Periods	Rows of the periodic table of elements. These represent the number of energy levels for electrons in atoms of the elements. Eg: Na- period 3
3	Groups	Columns on the periodic table of elements, ordered according to the numbers of electrons in the outer shells of the atoms of each element Eg: Na- group 1- 1 electron in outer shell
4	Chemical symbol	A one-or two-letter abbreviation for the name of an element. Eg; Na (Sodium)
5	Chemical equations	Show chemical reactions with reactant/s and product/s. Law of conservation of mass states the total mass of products = total mass of reactants

Cells		
1	Typical animal cell	
2	Typical plant cell	

Maths Skills (conversions and magnification)		
1	Conversions	<p>Standard form</p> <p>cm- $\times 10^{-2}$ mm- $\times 10^{-3}$ μm- $\times 10^{-6}$ nm- $\times 10^{-9}$</p>
2	Magnification	Magnification = image size \div object size

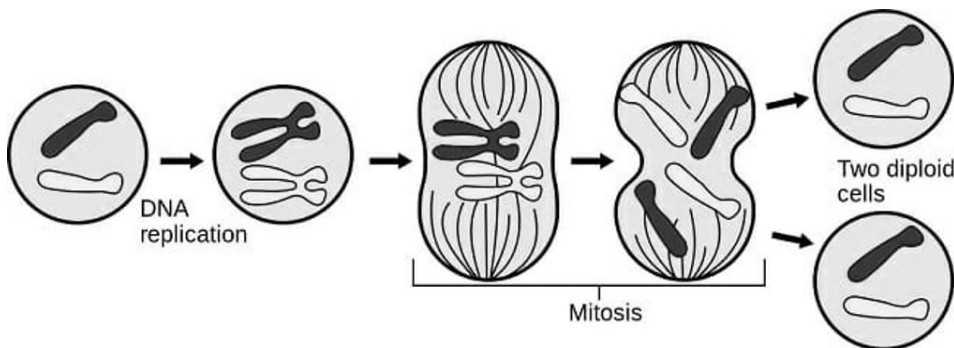
Key Vocabulary		A=animal cell only, P= plant cell only, B= both
8	Mitochondria (B)	Where aerobic respiration takes place
9	Ribosomes (B)	Make proteins by protein synthesis
10	Chloroplasts (P)	Where photosynthesis occurs. Contains chlorophyll to absorb light
11	Chlorophyll (P)	Green pigment used for photosynthesis found in chloroplasts
12	Vacuole (P)	Contains cell sap
13	Specialised cell	Cells that are modified to carry out a particular function. Found in both animals and plants
14	Magnification	How much bigger an image appears than the real object
15	Resolution	Ability to distinguish between two very small and closely spaced objects

Microscopes (Required practical)

1	Light microscope	<ul style="list-style-type: none"> Use light and lenses. Low magnification and resolution Used to view living cells
2	Electron microscope	<ul style="list-style-type: none"> Uses a beam of electrons Cannot be used to view living cells Much higher magnification and resolution. Eg: can see tiny structures such as ribosomes

Key Vocabulary		
1	Eukaryotic cell	Have cell membrane, cytoplasm and nucleus, eg: animal and plant cells
2	Prokaryotic cell	Do not have a nucleus, genetic material is looped, eg: bacteria
3	Sub cellular structures	Small structures inside a cell e.g. nucleus
4	Nucleus (B)	Controls cell activities, contains DNA
5	Cytoplasm (B)	Where chemical reactions take place
6	Cell membrane (B)	Controls what enters and leaves the cell
7	Cell wall (P)	Made from cellulose fibres. Strengthens the cell and supports the plant.

Mitosis and cell cycle	
1	Stage-1: Growth- Increase number of subcellular structures eg: mitochondria. DNA replicates
2	Stage-2: Mitosis 1. Chromosomes line up in the middle of the cell 2. Chromosomes are pulled to opposite poles 3. Nucleus divides
3	Stage 3 – cytokinesis Cytoplasm and cell membrane divide Two identical daughter cells are formed



Stem cells			
1	Treatment with stem cells may help conditions such as diabetes and paralysis. Uses of stem cells are rejected by some due to ethical or religious reasons.		
2	Human embryonic stem cells	Can be cloned, differentiate into most cell types	Therapeutic cloning uses same genes- no tissue rejection, infection risk
3	Adult bone marrow stem cells	Can form many types of human cells eg: blood cells	Matching tissue avoids rejection, infection risk, few types of cells can be formed
4	Meristems (plants)	Differentiate into any plant cell type anytime in plants life	Produces clones quickly and economically (rare species)

Specialised cells		
1	Specialised animal cells	<ul style="list-style-type: none"> Sperm- has a tail with lots of mitochondria for energy to swim Nerve- long to carry electrical impulses Muscle- contracts and relaxes for movement
2	Specialised plant cells	<ul style="list-style-type: none"> Root hair-large surface area to absorb minerals and ions Xylem- continuous hollow tube, carry water and minerals Phloem- tubes with sieve like ends connected end to end, carry glucose to cells

Key Vocabulary		
1	Differentiation	When a cell becomes a specialised cell – animal cells differentiate at an early stage, plant cells continue to differentiate throughout life.
2	Mitosis	The process of cell division where 1 parent cell produces 2 genetically identical daughter cells
3	Genes and chromosomes	DNA is arranged in chromosomes in cells. Gene - section of a chromosome. Chromosomes found in pairs in cells.
4	Stem cell	Cells that are undifferentiated but can turn into any type of cell

Adaptations of exchange surfaces

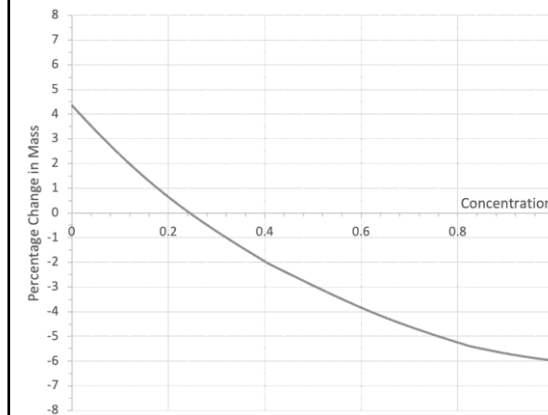
Examples of exchange surfaces	Animals: <ul style="list-style-type: none"> Alveoli (in lungs) Villi (in small intestine) Gills (in fish) Plants: <ul style="list-style-type: none"> Root hair cells (roots) Leaves
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Adaptation	How it works	Examples
Large surface area	More space for particles to diffuse across.	Shape of alveoli and villi Gaps in spongy mesophyll of leaves
Short diffusion pathway	Less distance for particles to diffuse, means diffusion happens quicker.	Walls of villi and alveoli are one cell thick. Leaves are very thin
Maintain concentration gradient	Particles continue to diffuse and do not reach equilibrium	Exchange surfaces like villi, alveoli and gills have good blood supply to move particles that have diffused in away, so more can diffuse in.

Required Practical – Osmosis

- Independent variable – Concentration of solution
- Dependent variable – change in mass of potato cylinders
- Control variables – diameter/length of potato cylinders, volume of solution

Calculate: % change in mass = $\frac{(\text{new mass} - \text{original mass})}{\text{original mass}} \times 100$



Key Vocabulary

	Type of transport	Definition	Example
1	Diffusion	The movement of particles from a HIGH concentration to a LOW concentration down a concentration gradient (gases or liquids). No energy required.	Oxygen and carbon dioxide in gas exchange in lungs
2	Osmosis	The movement of WATER particles from a high concentration (DILUTE solution) to a low concentration (MORE CONCENTRATED solution) through a partially permeable membrane. (liquids only). No energy required.	Water absorption by roots from soil. Water absorption in the large intestine.
3	Active transport	The movement of particles, e.g. mineral ions, from a LOW concentration to a HIGH concentration, AGAINST the concentration gradient. Requires ENERGY.	movement of mineral ion into plant roots and glucose into small intestine.

Section one : Role-Play

1	I go	Je vais
2	I play	Je joue
3	I go out	Je sors
4	I eat	Je mange
5	at the weekend	le weekend
6	with	avec
7	Do you like?	Tu aimes...?

Section two: Reading aloud – key sounds

1	désolé	ay
2	est	ay – silent t
3	La pollution	sion
4	beaucoup	silent p
5	La paix	silent x
6	maçon	ç - s
7	Les gens	on & silent s

Section three: Photo Card

1	In the 1st photo there is	Sur la première photo il y a
2	In the 2nd photo there is	Sur la deuxième photo il y a
3	You can see	On peut voir
4	They are in the process of	Ils sont en train de
5	On the right	A droite
6	On the left	A gauche
7	In the middle	Au milieu

Section four : Photo Card

1	people	des personnes
2	a man	un homme
3	a woman	une femme
4	a light	une lumière
5	a tree	un arbre
6	a building	un bâtiment

Section five : Photo Card

1	It is inside	C'est à l'intérieur
2	It is outside	C'est à l'extérieur
3	It is nice weather	Il fait beau
4	They are smiling	Ils sourient
5	They are wearing	Ils portent
6	They are talking	Ils parlent

Section one : Role-Play

1	I go	Ich gehe
2	I play	Ich spiele
3	I do	Ich mache
4	I eat	Ich esse
5	every day	jeden Tag
6	with friends	mit Freunden
7	How do you find?	Wie findest du...?

Section four : Photo Card

1	people	Leute
2	a man	einen Mann
3	a woman	eine Frau
4	children	Kinder
5	trees	Bäume
6	a building	ein Gebäude
7	vielleicht ist es ein Park	perhaps it's a park
8 _∞	vielleicht ist es eine Schule	perhaps it's a school

Section two: Reading aloud

1	meine	eye
2	die	ee
3	laut	ow
4	Freund	oy
5	Sport	shp
6	groß	ss
7	weil	v
8	Bär	Air
9	möchte	eugh
10	viele	f

Section five : Photo Card

1	sie spielen	they are playing
2	sie chatten	they are chatting
3	sie essen	they are eating
4	sie trinken	they are drinking
5	sie tragen	they are wearing
6	sie lächeln	they are smiling

Section three: Photo Card

1	In the 1st photo there is	Auf dem ersten Foto gibt es
2	In the 2nd photo there is	Auf dem zweiten Foto gibt es
3	There is	Es gibt
4	it's inside	es ist drinnen
5	it's outside	es ist draußen
6	in the background	im Hintergrund
7	in the foreground	im Vordergrund
8	Es gibt ein Handy	There is a phone

Who runs the world?

1	Superpower	A dominant country that can strongly influence others using political, economic, military and social power.
2	Soft Power	Using cultural value e.g. music to influence other countries,
3	Hard Power	Using military or economic means to influence other countries.
4	Why is the USA a superpower ?	<ul style="list-style-type: none"> • Rich in natural resources • Global leader in technology • Extensive trade relationships • The USA has vibrant cultural and creative industry • The USA has a highly educated and skilled workforce

How does physical geography shape life in the USA?

1	Human Geography	The study of where and how people live . They are usually human made features e.g. Cities such as New York
2	Physical Geography	The study of the earth's natural processes and features e.g. The Rocky Mountains, Colorado River
3	What is the connection?	Cities in the USA are often located near rivers (e.g. New Orleans) or by the coast (e.g. New York) Rivers and seas provide transport routes, trade opportunities and a water supply .

What are the conflicts between humans and nature?

1	Urban Sprawl	The uncontrolled growth of cities and towns into the surrounding rural area.
2	Economic impacts	+ More affordable housing created + Businesses move to suburban areas creating more employment opportunities.
3	Social impacts	+ Larger homes and gardens + Improvement of roads making it easier to travel.
4	Environmental impacts	- Loss of forests & animal's habitats - Increase wildfire risk - Increase in flood risk

Why is the USA so divided?

1	Political division	A disagreement between political parties about the way a country is run
2	Republican-conservative	Tradition is important , respecting rules, making changes slowly. Rural areas (older / more traditional)
3	Democrat-liberal	Equality, improving society through change , supports new ideas and individual freedom. Cities (younger/ more diverse)
4	Challenges	Issues over border walls/ cost of healthcare/ racial equality / climate change can lead to protests.

1. Why was the Weimar Republic unpopular?

1	What was the Weimar Republic?	<ol style="list-style-type: none"> 1. The government that ruled Germany between the end of the First World War and the Nazi Party. (1918-1933) 2. It was Germany's first democracy, based in Weimar, because Berlin was too dangerous. 3. There were lots of disagreements amongst German politicians because no party could gain a majority.
2	What was hyperinflation?	<ol style="list-style-type: none"> 1. Germany had to pay reparations to the Allies. 2. Workers in the Ruhr area went on strike and the government decided to print more money to pay them. 3. More money = higher prices (hyperinflation.) 4. Prices ran out of control, for example a loaf of bread, which cost 250 marks in January 1923, had risen to 200,000 million marks in November 1923.
3	How did people oppose the Weimar Republic?	<ol style="list-style-type: none"> 1. The new Weimar Republic government faced opposition from all forms of political parties. 2. Extreme right-wing groups wanted a return of a strong government with a strong army, headed by a powerful leader like the Kaiser.

2. How did Hitler become dictator?

1	What was the Nazi Party?	<ol style="list-style-type: none"> 1. The Nazi Party began as the German Workers Party which Hitler joined in 1919. 2. The Nazis increased their popularity by appearing to provide the solution to all of Germany's problems. 3. They adopted policies that could be supported by many different groups of Germans.
2	How did Hitler become Chancellor?	<ol style="list-style-type: none"> 1. Hitler became Chancellor of Germany in 1933 due to a deal with Franz von Papen and President Hindenburg. 2. Von Papen and Hindenburg thought that they would be able to control Hitler.
3	How did Hitler become dictator?	<ol style="list-style-type: none"> 1. Reichstag Fire – Hitler banned the Communist Party after the Reichstag building set on fire. 2. Enabling Act – Hitler passed a law allowing him to have more power. 3. Hindenburg – When the President died, Hitler combined the role of Chancellor and President and became the Fuhrer.

Key Word	Definitions
Weimar Republic	The German government from 1918 to 1933. It was very unpopular.
Democracy	A system of government where all adults vote for who is in charge
Dictatorship	A form of government where one person or group has absolute power. The public do not vote for their leaders.
Chancellor	Second most important leader of Germany (after the President). Hitler became Chancellor in 1933.
Fuhrer	A name given to Hitler's role when he became dictator of Germany.
Aryan	White non-Jewish people, especially those of northern European origin typically having blonde hair and blue eyes and regarded as a supposedly superior racial group.
Concentration Camp	Labour (work) camps used to imprison enemies of the Nazi party.

3. What was life like for women and children?		
1	Education	<ol style="list-style-type: none"> Three aims: Indoctrinate young people to be loyal to Hitler, train girls to be good Aryan wives. Make young people "swift as a greyhound, as tough as leather, and as hard as Krupp steel". All teachers had to join the Nazi Teachers' Association. Jewish teachers were sacked. Textbooks were rewritten, especially in history and biology, to promote Germany's 'greatness', Aryan 'supremacy'
2	School Life for boys and girls	<ol style="list-style-type: none"> Boys mostly studied history, eugenics and PE. Boxing was compulsory. Boys with potential to be future leaders were sent to special Adolf Hitler Schools Girls primarily studied home economics, eugenics and PE.
3	Motherhood and the role of women	<ol style="list-style-type: none"> Kinder (Children), Kuche (kitchen), Kirche (Church) Medals were awarded 'perfect' Aryan children, parents of pure German blood heritage could be awarded these medals.

Key Word	Definitions
Indoctrinate	To persuade someone to accept an idea by showing it repeatedly.
Terror State	Using fear to control the population
Propaganda	Information (which may be misleading) used to promote a point of view.
Opposition	Resistance against a group, person, law or event.
Concentration Camp	Work camps used to imprison enemies of the Nazi party.

4. How did the Nazis keep control of Germany?		
1	Propaganda	<ol style="list-style-type: none"> Radio broadcasts of Hitler's speeches played in public The Swastika and Nazi symbols displayed in public places Propaganda posters encouraging the Nazi ideas and policies
2	Terror State	<ol style="list-style-type: none"> Children were encouraged to report on their parents and teachers if they spoke against Hitler and the Nazis. By 1935, every housing estate had a 'local ruler' who would listen for negative comments. By 1939, there were over 100,000 people in prison for 'anti-Hitler crimes'. People who opposed the Nazi party were sometimes sent to concentration camps.
3	Gestapo	<ol style="list-style-type: none"> The Nazi secret police. They could arrest and imprison people without trial People would inform the Gestapo about others

5. How did people oppose the Nazis?		
1	Methods	<ol style="list-style-type: none"> Pamphlets/leaflets Secretly listening to BBC radio Refusing to do the Nazi salute
2	Youth Opposition	<ol style="list-style-type: none"> Swing Youth – Challenged the Nazis by listening to sewing music (which was seen as black music), growing their hair long and refusing to join the Hitler Youth. White Rose Movement – Published anti-Nazi pamphlets, their leaders were executed in 1943. Edelweiss Pirates - They painted anti-Nazi slogans, sheltered deserters and beat up Nazi officials. In 1944, the Cologne Pirates killed the Gestapo chief.

Human Rights		
1	What are they?	Inherent and essential protection for people
2	When did they become law?	Parliament passed Human rights in 1988
3	Give examples	Right to life and education
4	What led to Rights?	The Holocaust inspired the formation of the UN
5	Can they be broken?	Amnesty International fights for human rights around the world.

Animal Rights		
1	Give uses of animals	Farming, police dogs
2	Give rights of animals	Protection, free from abuse, food and shelter
3	Can they be broken?	The law and charities like the RSPCA protect animal rights

Key word	Definition
Responsibility	The legal or moral duty which a person has
The Law	A system of rules enforced by a country's legal system with consequences for those who break them
Human Rights	The basic rights and freedoms to which all human beings should be entitled to
UDHR	The United Nations Declaration of Human Rights which is a document produced by the United Nations setting out the rights that all people should be entitled to.
Amnesty	A pardon for crimes committed, usually against the state
Human Rights Act	An act of parliament passed in 1998 which says that all organisations have a duty to protect the rights of all individuals in the UK
Discrimination	the unjust or prejudicial treatment of different categories of people, especially on the grounds of race, age, or sex.
Inherent	existing in something as a permanent, essential, or characteristic attribute.
Rights	Entitlements that everyone can have
Sanctity of Life	Life is sacred because it is given by God
Extinction	When all members of a species have died out and that species will never exist on Earth again
Vegetarianism	The belief held by people who do not eat meat
Vegan	A person who will not use any animal product
Fur trade	The business of arming or hunting wild animals for their fur to be made into clothing
Animal experiments	Testing on animals, either for medical or cosmetic purposes, to ensure that the product is safe for use by humans

Religions and Human Rights		
1	Buddhism?	Monks must follow the laws of the land. Buddhists believe in doing the 'right action'
2	Islam?	Teaches its own law, Shariah Law. It is from the Qur'an
3	Christian?	Everyone must follow the laws and God will judge our actions
4	Hinduism	Human rights depend on sex, age and social status
5	Judaism	God gave laws to follow and they have a lot in common with rights. E.g. do not kill
6	Sikhism	Sikhs teach equality and the duty to love and help people.

Religions and Animal Rights		
1	Christian?	Stewardship – care for animals; Dominion – rule over animals. God gave humans both of these duties at creation
2	Buddhism?	Animals should be treated with compassion
3	Hinduism?	All animals are creatures of God so should be loved
4	Islam	Animals have purpose and you shouldn't be cruel to them
5	Judaism	Noah saved animals in the flood but they can be used by humans
6	Sikhism	Sikhs have a duty to look after animals.

Managing Change

Types of change

Expected Change

- Moving into Year 9
- Growing older
- Starting a new school year
- Learning new subjects
- *Joining* a new club or team

Unexpected Change

- Illness
- Family separation
- Losing a pet
- Moving house suddenly
- An accident

Why might someone fear change?

- Rejection
- Loss of control
- Loss
- Unknown
- Criticism
- Failure

How might we feel stress & change?

Body	Mind	Feelings
Headaches	Worrying thoughts	Anxiety
Feeling tired	Difficulty concentrating	Frustration
Stomach aches	Forgetfulness	Mood changes

What can you do to help you adapt to change?

- Control** - you can only control what you can control
- Laugh** - keep your sense of humour
- Act** don't react - take ownership of the change
- Anticipate** - expect setbacks so you can be prepared
- Perspective** - identify what is staying the same
- Prepare** - break the change down into smaller chunks
- Similar Experiences** – use the tips learnt previously

British Values

What are the 5 British Values?



SMSC

1	Spiritual	Ability to be reflective about your own beliefs (religious or otherwise) and perspective on life.
2	Moral	Ability to recognise the difference between right and wrong and to readily apply this understanding in your own lives, recognise legal boundaries and, in so doing, respect the civil and criminal law of England.
3	Social	Use of a range of social skills in different contexts, for example working and socialising with other pupils, including those from different religious, ethnic and socio-economic background.
4	Cultural	Understanding and appreciation of the wide range of cultural influences that have shaped your own heritage and that of others.

British Governance

1	What is a political party?	A political party is a group of people who share a common view on issues.
2	What do political parties do?	Run the country, represent voters, help people understand politics
3	What is an election?	A time when people vote in order to choose someone for a political or official job
4	Basic voting rules	You have to be 18 years old on the day of the election 'polling day'. You must be either a British, Irish, Commonwealth or EU citizen*. You can register to vote from the age of 16. You must be registered at an address in the area you want to vote in. You can't vote if you are serving a prison sentence.

Knowledge Group 1: Draw & laminate

1	Urban Landscape	An artistic representation, such as a drawing or painting of the physical aspects of a city or urban area. It is the urban equivalent of a landscape.
2	Outline	A drawing or sketch restricted to line without shading or form.
3	Seamless	Smooth and continuous, with no apparent gaps or spaces between one part and the next.
4	Overlap	Extend over so as to cover partly.
5	Abstract Shapes	Depictions of real things without being exact representations.
6	Perspective	Art of representing three-dimensional objects on a two-dimensional surface so as to give the right impression of their height, width, depth, and position in relation to each other.
7	Laminate	Technique involving a thin layer of paint which is scraped onto a mixed media surface.
8	Transparent (after laminating)	Allowing light to pass through so that objects behind can be distinctly seen.
9	Foreground	The area of the picture space nearest to the viewer.

Knowledge Group 2: Mixed Media

1	Mark-Making (expressive)	A term used to describe the different lines, patterns, and textures that are made visible as a manifestation of applied or gestural energy.
2	Compositional flow	Flow is about movement and direction, and leading the eye from one part of a composition to another in the direction you want it to move.
3	Expressive	Exploring shape, pattern and colour in an abstract way.
4	Collage	Technique and the resulting work of art in which pieces of paper, are arranged and stuck down onto a supporting surface.
5	Sellotape transfer	Technique for turning photocopies into transparent images, which you can then be layered into collage art.
6	Structure Gel	Acrylic based medium which is used to glue materials or laminate a plastic surface making it workable.
7	Typography	Art of arranging type to make written language legible, readable and appealing.

Knowledge Group 3: Artists/Periods

1	Andy Mercer	An artist from Lancaster (UK) known mainly for his cityscapes using urban textures and imagery.
2	Mark Bradford	An American visual artist born in Los Angeles. He is recognised for his collaged painting works.

Characterisation Techniques		
1	Characterisation	The process of developing your character so that it is convincing in a performance.
2	Off Text Improvisation	Making up a scene on the spot, without a script, imagining what happens before or after the text.
3	The Leading Technique	Using different body parts to lead (push forward) when moving in character.
4	Seven Levels Of Tension	How much we relax or tense our muscles to show a character. 1. Exhausted – Heavy, like a jellyfish 2. Laid back – No worries, relaxed on a sunny beach 3. Neutral – No story, blank 4. Alert – Curious, lost something, confused 5. Suspense – Suspicious, Cautious 6. Passionate – Melodramatic, despair 7. Tragic – Grief, petrified, frozen with fear

Stanislavski's Style and Techniques		
1	Realism	A style of drama that is believable. It could happen in real life. The characters could really exist.
2	Given Circumstances	<ul style="list-style-type: none"> • Where the drama takes place. • When the drama takes place • What has happened before the drama takes place. • What happens after the drama takes place. • Which characters are in the scene. • Where the characters in the drama are from. • The characters relationships with each other.
3	Visualisation	Imagining your surroundings and environment accurately, considering every detail. This include sight, sound, taste, smell and touch.
4	Magic 'IF'	The actor puts themselves into the mindset of the character and thinks. 'What would I do if I was in this situation?'

Contextual Links : STANISLAVSKI Given Circumstances (Stanislavski's Given Circumstances)

1. Material Properties

1	Malleable	Can be pressed or hammered into shape
2	Corrosion resistant	Resists oxidization or moisture
3	Ductile	Able to be stretched into wire
4	Hard	Resists scratching






2. Materials; Metals

1	Ferrous metal	A ferrous metal is a metal that DOES contain IRON. Ferrous metals tend to rust and are magnetic. Examples include; Iron and Steel
2	Non Ferrous metals	A non ferrous metal DOES NOT contain IRON. Examples include; Aluminium and Copper
3	Alloy	An alloy is a combination of 2 or more metals mixed together to give an existing metal better properties. Examples include; Solder, Brass and Bronze

3. Materials; Manufactured Boards

1	Plywood	Strong thin wooden board consisting of two or more layers glued and pressed together with the direction of the grain alternating.
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4. Electronic Components

1	Battery Snap 	Snap onto the leads on the terminal end of a standard 9V battery.
2	Switch 	A component that can disconnect or connect the path in an electrical circuit.
3	Light Emitting Diode (LED) 	A light source that emits light when current flows through it in the correct direction.
4	Wire 	Made from copper, allowing electricity to flow between components.
5	Battery 	A combination of electrochemical cells with external connections for powering electrical devices.

5. Tools & equipment

1	Soldering Iron	An electrical tool which applies heat, melting solder allowing you to join metals together.
2	Wire Cutters	Hand held tool used to cut through wires or cables
3	Wire Strippers	A hand-held tool designed to remove insulation from electrical wires.

6. Process; Soldering

Step 1	Heat the connection with the tip of the soldering iron for a few seconds, then apply the solder.
Step 2	Keep the soldering tip on the connection as the solder is applied.
Step 3	Remove the tip from the connection as soon as the solder has flowed .
Step 4	Don't move the connection while the solder is cooling.
Step 5	Don't overheat the connection, as this might damage the electrical component you are soldering

Key Vocabulary

1	Template	A shaped piece of rigid material used as a pattern for repeated processes such as cutting out or shaping
2	Model	A particular design or version of a product
3	Prototype	A first version of a device from which other forms are developed.









Sand down any finished plywood shapes (P80,P120,P240,P320,P400)

Know the black wire goes to the short leg on the LED. (Red – positive, Black – Negative)

1. Knowledge is power

1	Super foods	Superfoods are foods that are thought to be very good for your health. They usually have lots of nutrients. These nutrients help your body stay healthy and fight off illness. Some Scientists believe that these foods have extra special benefits in boosting our immunity.
2	Fast foods	Fast food is a type of mass-produced food that is easy to access, efficient and tasty. Some are sold in restaurants or bought in stores with frozen, preheated or precooked ingredients. Many fast foods contain hidden fats, salt and sugars, so must be consumed occasionally, as a treat.
3	Cooking Methods	We cook food to make it safe, tasty and easier to digest. The way that we cook food has an impact on nutrients and some are better than other at retaining them. E.G steaming. Finding the best cooking methods to seal nutrients in is essential to reduce nutrient loss and maximise benefits
4	Factors affecting food choices	Many things effect the types of food that we choose to eat. Sometimes the type of food that we choose to eat can lead to an unbalanced and harmful diet. Availability, food access and cost can impact choice. Religious and environmental reasons can limit what we choose to buy.
5	Eating Disorders	An eating disorder is a serious mental health condition where a person develops an unhealthy relationship with food, eating, body shape, or weight. It can affect anyone — no matter their age, gender, or background.
6	Nutrition in life stages	There are many stage of life that humans experience. Each stage requires certain nutrients to do a job in the body. E.g. Toddlers require calcium for bone development.
7	Exercise	Required to burn off the foods we consume. Input v output should be equal for good health
8	Animal Welfare	Where animals are reared in a safe, happy and secure environment. They are not mistreated.

2. How to adapt a recipe

1	Big Mac 	Mince choice, combining, moulding, shaping, cooking methods. Vegan/pescatarian options. Garnish development, leaves, vegetables, Sauces – mayo, chilli,
2	Sausage Bites 	Meat filling choices, vegan, fish 5 veg a day, grating to hide for toddlers. Eliminate fatty pastry using wholegrain bread as a casing. More Fibre fuller for longer Shaping, moulding, securing, glazing, consistent sizing, even cooking. Use food probe
3	KFC 	Type of potato: Sweet potato, white, new Fish/chicken: Salmon, Pollock, chicken, turkey Coating/seasoning: Cornflakes, rice krispies, bran flakes, paprika, oregano, chilli
4	Cheesecake 	Type of biscuits: Gingernuts, digestives Filling flavour, Lemon, blueberry. decoration: lemon slices, blueberry cluster, chocolate decoration, strawberry fans, roses.
5	Taco Bowls 	Using tortilla to make taco bowl. Seasoning, oiling and spice measuring on bowl and dips. Use of beans, lentils, protein.
6	Curry 	Marinating, tenderising, use of authentic, traditional spices. Cooking techniques, temperature control, chicken. Appropriate vegetable selection
7	Spring Roll 	Baking rather than deep frying to reduce fat content. Selection of vegetables as filling. Adding authentic spice selection.
8	Pizza Bites 	Passata / pesto used to go towards 5 a day. Cheese grated to limit fat content. Grated carrot added and other vegetables. Aubergine / sweet potato used instead of bread






Key Vocabulary

1	Deficiency	A lack/shortage of a nutrient in the body.
2	Excess	Too much of a nutrient in the body.
3	Macronutrient	A nutrient required in large amounts in the diet. E.g. carbohydrates, fats, protein.
4	Micronutrient	A nutrient required in small amounts in the diet. E.g. vitamins, minerals and NSP.
5	Anaemia	A condition that can be caused by lack of iron in the diet. Not enough healthy red blood cells to carry enough oxygen around the body.
6	Osteoporosis	A condition caused by lack of calcium/vitamin D in the diet. It weakens bones making them fragile and more likely to break.
7	Antioxidant	Antioxidants are natural substances that help protect your body's cells from damage. Antioxidants act like protective shields that stop or reduce cell damage.
8	Well-being	Well-being is feeling well, feeling positive. Includes having good mental health and high self-esteem.
9	SMEE Issues	Social, moral, ethical and environmental issues e.g. Organic, Halal, Fair trade, farm assured, veganism
10	Symptoms	A physical or mental feature that points to a condition or disease.
11	Calorie	The amount of energy in an item of food or drink is measured in calories
12	Food Provenance	Where food comes from, how it's produced, and how it gets to us. It's the journey food takes — from farm to fork.
13	Battery Eggs	come from hens kept in small wire cages, often in large, crowded sheds. Poor care and feed.

Techniques and Processes

Key Vocabulary

Contextual links/Key names

1	<p>Block Printing</p> 	<p>The process of creating a printing block, applying a layer of ink with a 'brayer' and transferring a design onto paper or fabric.</p>
2	<p>Free machine embroidery</p> 	<p>Using a free machine foot on the sewing machine to achieve free motion sewing which creates designs and patterns.</p>
3	<p>Lamination</p> 	<p>The process of arranging various materials between layers of plastic and applying heat to seal together the layers and create an interesting design.</p>
4	<p>Digital Repeat patterns</p> 	<p>An image which is repeated multiple times to create interesting patterns. Repeats are mirrored, aligned and repeated to create surface pattern.</p>
5	<p>Hand drawn Repeats</p> 	<p>The process of creating a motif and repeating to create a block repeat design.</p>

1	<p>Typography</p> <p>Typography is the art and technique of arranging type to make written language legible, readable and appealing when displayed.</p>
2	<p>Annotation</p> <p>Text accompanying images/practical work which explains, describes and justifies.</p>
3	<p>Motif</p> <p>A motif is a recurring fragment, theme or pattern that appears in a work of art.</p>
4	<p>Mixed Media</p> <p>Mixed media art refers to a visual art that combines a variety of media in a single artwork. For example, pencil, paint, collage, ink or fine liner etc.</p>
5	<p>CAD</p> <p>Computer Aided Design is the use of a range of computer software to support the creative/design process of products.</p>
6	<p>Repeat Reflect Rotate Half drop repeat</p> <p>Occurs multiple times A mirror image Move in a circle round an axis Staggering the repeat of an image along a vertical line</p>
7	<p>Justification</p> <p>Presenting a reason, fact or opinion for your choices or actions</p>
8	<p>Inspiration</p> <p>The process of being influenced or stimulated to do something creative</p>

1	<p>Typography</p> <p>Typography and Textile Design are linked through their shared focus on pattern, communication and cultural expression. Surface pattern designers create repeating patterns that are applied to various products and surfaces like wallpaper, wrapping paper, clothing, upholstery, stationary, and much more.</p>
2	<p>People Powered Press</p> <p>The People Powered Press are a community-based arts project in Saltaire. They operate one of the largest printing presses in the world and focus on engaging the local community in creative and collaborative printing projects. The PPP have a mission to make art accessible for everyone.</p>
3	<p>Morag Myerscough</p> <p>Morag Myerscough is a London –based artist and designer. She creates vibrant, large-scale installations that transform public spaces. Her work is bold, colourful and geometric. She uses a lot of typography/lettering and uplifting words and phrases. She often collaborates with local communities to co-create site-specific installations in schools, hospitals, at festivals and in urban spaces.</p>

<p>Tools and Equipment</p>	
1	<p>Laminator</p> <p>A machine used to provide protection and durability by sealing documents, pictures or materials between two layers of plastic.</p>
2	<p>Brayer</p> <p>A 'roller' that applies a fine, evenly spread layer of ink to a printing block.</p>

3	<p>Template</p> <p>A guide used to accurately measure/cut a material</p>
4	<p>Free machine foot</p> <p>A circular foot allowing free motion sewing in all directions</p>
5	<p>Feed dogs</p> <p>Metal teeth like ridges which guide the fabric through the sewing machine. They must be down for FME.</p>
6	<p>Cotton material</p> <p>Woven natural soft material which comes from the cotton plant</p>

1. Performance skills			3. Music technology			4. Musical elements		
1	Timing	Playing in time with the pulse of the music and or with another part	1	Looping	Using music technology to repeat a pattern over and over again.	1	Melody	The main tune, played on instruments or sung.
2	Pitch Accuracy	Playing notes in the correct octave and moving up or down in pitch according to the notes on the stave.	2	Loop Pedal	An effect pedal used by musicians to create loop patterns.	2	Chords	Two or more notes played at once.
3	Rhythmic Accuracy	Playing notes for correct length with correct rests in between. According to the notes on the stave.	3	Reverb	An electronically produced echo effect used in both live and recorded music.	3	Bass line	The lowest part in music, provides the harmonic structure of the music.
4	Fluency	Performing without starting and stopping randomly.	4	Synthesiser	An electronic musical instrument that uses human made sounds to create music. An example would be a keyboard.	4	Riff	A repeated musical pattern used in Rock, Pop and Jazz.
5	Projection	Performing clearly and at an appropriate volume so that the audience can hear you	5	Layering	Slowly adding more parts into a song to create musical interest.	5	Hook	A catchy musical phrase used in popular music.
2. Song structure			6			6	Tonality	The mood of the music defined by the musical Key.
1	Intro	The section of the music that introduces the song.	7			7	Chord Sequence	A pattern of chords.
2	Verse	A section that repeats in a song, it has the same music, but different lyrics.	8			8	Texture	The layers of instruments / sounds within a piece of music
3	Chorus	The main section of a song, it will repeat both the lyrics and the music in the same way..	9			9	Tempo	The speed or pace of the music
4	Outro	The ending section of a song.						

