

Knowledge Organiser

Year 9 Summer 2 2023

Create Your Future

“If we all try to be a better friend from time to time the world will be a better place to live in.”

Kevin Sinfield OBE

Former England Rugby League player

Current Rugby Union Coach

Name:

Tutor Group:

Contents Page

Classroom Expectations	3
Word of the Week	4
Subject: English	5
Subject: Maths	8
Subject: Science	12
Subject: Geography	17
Subject: History	18
Subject: World Views	19
Subject: French	21
Subject: German	23

Subject: Computing	25
Subject: PE	26
Subject: Art	28
Subject: Drama	30
Subject: Music	31
Subject: D&T Food	32
Subject: D&T Textiles	33
Subject: D&T 3D	34
Subject: PSHE	35

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

Classroom Expectations

Everyone Involved. Everyone Engaged

WORK HARD

I am well-prepared for lessons, work hard at every task and take pride in my work



RESPECT FOR ALL, BY ALL



I behave in a way that supports my own and others' learning. I contribute to the positive learning atmosphere in the classroom

SHOW RESILIENCE

I keep trying, even when I find the work difficult.



MAKE A CONTRIBUTION



I offer valid and well considered contributions to lessons.

STRIVE FOR IMPROVEMENT

I have high expectations of myself. I follow advice on how to improve my work.



Beautiful Books

Write in **blue** or **black** pen

Date and title written and **underlined** with a ruler

Absolutely no graffiti or doodling in your book

Correct and annotate your work in a **different coloured pen**

All worksheets or loose paper to be stuck down

Diagrams and tables drawn with a pencil and ruler

Monday 5th September 2022

Title

Subtitle

1. All work should be neat, tidy and clearly set out.
2. Your book is a record of your work and should be brought to every lesson.
3. There should be no graffiti or doodling either on the cover or inside your book.
4. Mark your work in a different colour. Correct mistakes ✓ write corrections or annotate.
5. Diagrams or tables should be drawn in pencil, with a ruler.

Victoria organises a concert.
Each adult ticket costs £9
Each pensioner ticket costs £6
Children tickets are free.

Some adults and pensioners have vouchers that give them a 25% off.

40 of the 200 tickets were for children.
14 of the adults had a voucher
Only 3 of the 25 pensioners had a voucher

Work out how much money Victoria raises through ticket sales.

Adult: Voucher, No voucher
Pensioner: Voucher, No voucher
Children: No voucher

3 BELPER SCHOOL

Environment

SYNONYMS

HABITAT
TERRITORY
DOMAIN

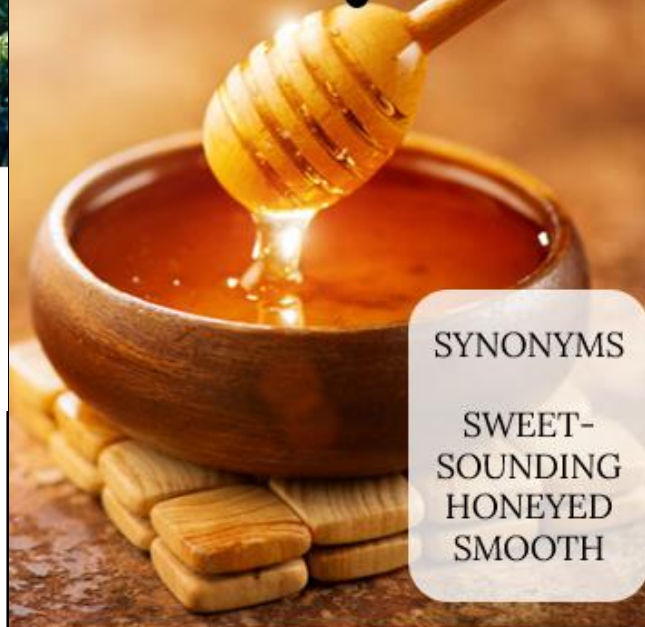


NOUN The surroundings or conditions in which a person, animal, or plant lives or operates.

How have you used the words this half term?

Words of the Week

Mellifluous

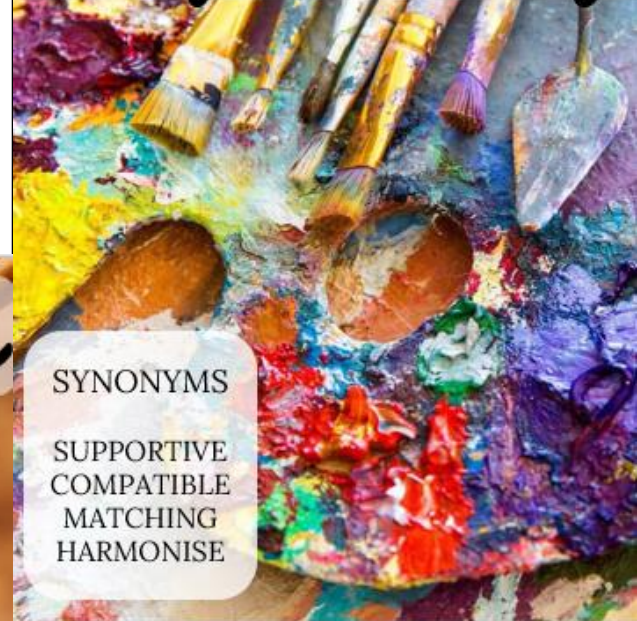


SYNONYMS

SWEET-
SOUNDING
HONEYED
SMOOTH

ADJECTIVE: (of a sound) sweet-sounding and musical to hear.

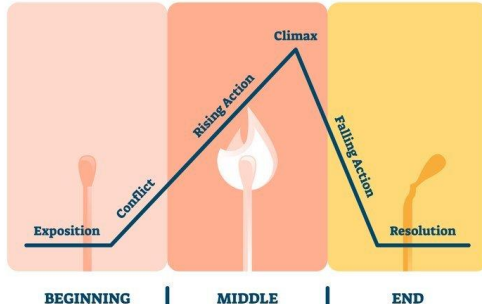
Complementary



SYNONYMS

SUPPORTIVE
COMPATIBLE
MATCHING
HARMONISE

ADJECTIVE: combining in such a way as to enhance or emphasise the qualities of each other or another.

Section 1: Key Vocabulary		Section 2: New Key Skills/Strategies	Section 3: Genre Background
Tier 3 vocabulary	Definition	<p>Plot can be talked about in a number of different ways. This diagram shows one of the most common structures for a story.</p> <p style="text-align: center;">PLOT DIAGRAM</p> 	<p>The Science Fiction genre grew out of the advancement of science and development in areas of astronomy, physics and maths. It is a genre that sparks the imagination and unknown frontiers feature heavily which tie to the genre's notions of discovery and exploration. It is a blend of modern scientific interests and fantasy where anything is possible. Famous examples of science fiction include: War of the Worlds by H. G. Wells; A Journey to the Centre of the Earth. by Jules Verne and Nineteen Eighty-Four by George Orwell. Science fiction tends to look forward, imagining new technologies, worlds and creatures, or exploring the impact that these may have.</p> <p><u>Discussion Questions</u></p> <ul style="list-style-type: none"> - Why do you think science fiction remains such a popular genre? - Why do you think science fiction is so often linked with horror?
Non-Linear	a story told using a non-chronological structure		
Analepsis	a literary device in narrative, in which a past event is narrated at a point later than its chronological place in a story. Also known as a flashback		
Narrative perspective	the point of view a writer uses when telling a story		
Enigma	a person or thing that is mysterious or difficult to understand		
In Media Res	in the middle of a story / action		
Exposition	a literary device in which the author tells readers what is happening		
Syndetic listing	a list connected with conjunctions	<p><u>Possible Structure Questions</u></p> <ul style="list-style-type: none"> - Why has the writer focussed your attention on this at the start? - How does the writer end the piece of writing? - How does the writer create tension? 	<p><u>Reading for Context</u></p> <p>Science Fiction writers often use made up or complex vocabulary to help them set an alien scene. This can make it hard to read, so you often need to use <u>context clues</u> in order to work out what words might mean.</p>
Holophrastic	a single word sentence, such as 'Believe!'		
Tier 2 vocabulary	Definition	Writing about structure	1. Word Parts
Ambiguous	something that is unclear or uncertain	<p>When writing about structure, think about it like making a sandwich. I might like a sandwich with ham, mustard and lettuce in it. I might decide to put my bread first, then mustard, then ham, then lettuce and then bread on top of that. That's a conventional sandwich. Now imagine I started with my mustard, and put that on the outside of my sandwich – why would I do that? Writing about structure is the same kind of thing... why has the writer decided to start with the middle of their story rather than conventional beginning?</p> <p><u>Sentence Starters</u></p> <ul style="list-style-type: none"> - I think the writer has chosen to start in the middle of the action because... - I think the writer ended the story on a cliffhanger because... - Perhaps the author used a non-linear structure to... 	Break down the different parts of a word—base word (word stem or root word), prefixes, and suffixes—to figure out what it means.
Structure	how something has been shaped or put together		2. Definition/explanation
Explore	consider, think about and justify your ideas		Look for a definition or an explanation within the sentence.
Context	the background, individual, social and historical, that we bring to a text		3. Synonym
Analyse	focus in depth on how something is done and explain why with justification		Words next to the unknown word can be a clue that there is a synonym.
			4. Example
			Providing examples of the unknown word can give readers a clue to meaning.
			5. Antonym/contrast
			Opposite information about the unknown word can be offset by words and phrases such as unlike, as opposed to, different from.
			6. Analogy
			Comparisons of the word help to determine what it means.

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Anaphora	repetition of a phrase at the start of a line or sentence
Assonance	words that share the same vowel sound
Caesura	a pause in a line of poetry
Enjambment	where a line has no punctuation at the end and goes onto a new line, but carries on an idea
Motif	a repeated idea or theme throughout the poem
Sibilance	Making a 's' or 'sh' sounds
Plosive	Making a 'p' or 'b' sound

Tier 2 vocabulary

Tier 2 vocabulary	Definition
Stanza	a section of a poem sometimes referred to as a verse.
Rhyme scheme	what type of pattern the rhyme follows e.g abbbca
Rhythm	the beat or pace of the words. It can be regular or irregular, slow or fast
Poetic persona	when the poet takes on a voice in the poem.
Repetition	repeating the same word or phrase

Section 2: Comparing poems

Compare the poet's use of language and structure in *Hurricane Hits England* and *Blessing*.

Comparing poetic techniques

Hurricane	Blessing
Simile to depict the weather e.g. 'trees falling heavy as whales'	Simile to depict the weather e.g. 'skin cracks like a pod'
Sematic field of nature	Semantic field of poverty
No structured rhyme scheme	No structured rhyme scheme

Comparative connectives to use in your writing

Similarities	Differences
Likewise	However
Similarly	On the other hand
Equally	In contrast

Section 3: Information about some of the poets

Grace Nichols



Grace Nichols is a poet whose work has been central to our understanding of the important cultural Caribbean-British connection for nearly 3 decades. Nichols was born in Guyana in 1950, and moved to live in the UK in 1977. Her work is influenced by the history and culture of her homeland, in particular the oral story-telling tradition with its fantastic folk tales, the landscape and its rural tasks and the history of enslavement.

Kamu Braithwaite



Kamu Braithwaite was born in Barbados, an island in the Caribbean. Braithwaite's ambition was to create a distinctively Caribbean form of poetry, which would celebrate Caribbean voices and language, as well as African and Caribbean rhythms evoking Ghanaian talking drums, calypso, reggae, jazz and blues.

Tier 2 vocabulary	Definition
Alliteration	Using the same letter at the start of closely connected words
Hyperbole	Language used to exaggerate information
Metaphor	A comparison where something is described to be something it is not
Secondary story	A less important story featured on the front cover of a newspaper
Sensationalism	The presentation of stories in a way that is intended to provoke the reader

Text A	Text B

Language Audience
Graphology Tone
Structure Purpose

Newspaper Reports

Name of Newspaper → **THE NEWS TODAY**
Headline → **HOW MUCH IS THAT DOGGY IN THE WINDOW?**
Reporter's Name → **EXCLUSIVE STORY**
Opening → **THE tale of the country's most famous dog is a tale of a country's most famous newspaper. The dog is a golden retriever named "Buddy" and he is the star of the nation's most popular newspaper, "The News Today".**
Article → **Buddy was born in a small town in the state of New York. He was raised by a family of farmers and he became a very popular dog. He was often seen in the streets of the town and he was always the center of attention. He was a very friendly dog and he was always willing to play with anyone who wanted to. He was a very smart dog and he was always able to find his way home. He was a very loyal dog and he was always with his family. He was a very happy dog and he was always smiling. He was a very good dog and he was always a good boy. He was a very brave dog and he was always ready to protect his family. He was a very kind dog and he was always willing to help anyone in need. He was a very gentle dog and he was always very calm. He was a very beautiful dog and he was always very well groomed. He was a very healthy dog and he was always very active. He was a very long-lived dog and he was always very old. He was a very wise dog and he was always very experienced. He was a very good dog and he was always a good boy. He was a very brave dog and he was always ready to protect his family. He was a very kind dog and he was always willing to help anyone in need. He was a very gentle dog and he was always very calm. He was a very beautiful dog and he was always very well groomed. He was a very healthy dog and he was always very active. He was a very long-lived dog and he was always very old. He was a very wise dog and he was always very experienced.**
Sub-heading → **HEARD FROM THE DOG**
Picture → 
Caption → **Meeting the famous dog, Buddy, who is the star of the nation's most popular newspaper, "The News Today".**
Advert → **WORRIED ABOUT LOSING YOUR PET?**
Extra Information → **Don't lose your pet again. Use the new "Pet Tracker" system. It's the only system that can find your pet, even if it's lost. Call 1-800-123-4567 for more information.**

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Proportion	An equation in which two ratios are set equal to each other
Graph	A diagram showing the relationship of quantities.
Inverse proportion	When two quantities are in inverse proportion, as one increases the other decreases.
Direct proportion	Two quantities are in direct proportion when they increase or decrease in the same ratio.
Multiplicative relationship	A relationship where two quantities can be expressed as multiples of each other.
Ratio	A ratio shows how much of one thing there is compared to another. Ratios are usually written in the form a:b.
Tier 2 vocabulary	Definition
Fraction	Represent equal parts of a whole or a collection
Best buy	An item or product which gives the best value for money out of all its competitors.
Debit	An amount of money taken out of an account: the opposite of credit.
Credit	The name given by accountants to an amount received: the opposite of debit.
Balance	An account balance is the amount of money present
Profit	Income minus all expenses
Loss	Loss occurs when you sell something for less than it cost.
Percentage	Percent means 'per 100' and it's shown using the symbol %.
Equivalent	Two values, numbers or quantities which are the same.

Section 2: Knowledge/Skills

Ratio notation

Ratios are written in the form a : b
It's important to notice what order the parts of the ratio are written in as 2 : 3 is not the same as 3 : 2.

Equivalent ratios

These ratios are all equivalent:

$$1 : 4 = 2 : 8 = 10 : 40$$

Both sides of the ratio can be multiplied or divided by the same number to give an equivalent ratio.

Reducing ratios to simplest form

To reduce ratios to their simplest form you keep finding smaller equivalent ratios until you can no longer divide both numbers by a number.

Simplify 6 : 12

Divide both numbers by 2

$$6 \div 2 = 3 \text{ and } 12 \div 2 = 6$$

Therefore, 6 : 12 = 3 : 6

Divide both numbers by 3

$$3 \div 3 = 1 \text{ and } 6 \div 3 = 2$$

So, 3 : 6 = 1 : 2

So 6 : 12 in its simplest form is 1 : 2

Sharing ratios

Dave and Lisa win £500 between them, they agree to divide the money in the ratio 2 : 3

The ratio 2 : 3 tells us for every £2 Dave receives, Lisa receives £3.
So, of the total amount, Dave will receive 2 parts and Lisa will receive 3 parts meaning that there are 5 parts in total.

If £500 represents 5 parts, £100 represents 1 part.

Dave receives 2 parts: $2 \times £100 = £200$

Lisa receives 3 parts: $3 \times £100 = £300$

So the money is split in the ratio £300:£200

Expressing ratios as fractions

In the above example there are five parts in total.

To work out the fraction of money Dave got you put his part of the ratio above the total parts which is $\frac{2}{5}$.

To work out what fraction of the money Lisa got you put her part of the ratio over the total parts which is $\frac{3}{5}$.

So Dave got 2 fifths of the money and Lisa got 3 fifths.

Writing ratios as linear functions

If you want to write the ratio 2:3 (how Dave and Lisa split their money) as a linear function where x is the amount Dave has and Y is the amount Lisa has as two equal things you would write $3x = 2y$. Because if you times Dave's money by 3 you get £600 and if you times Lisa's money by 2 you also get £600 so these are equal.

Section 2: Knowledge/Skills

Direct proportion

A babysitter's earnings are directly proportional to the number of hours worked.

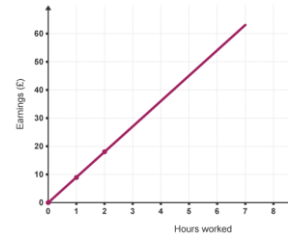
Earnings = £9 × hours worked

$$\text{Hours} = 0, \text{ earnings} = £9 \times 0 = £0$$

$$\text{Hours} = 1, \text{ earnings} = £9 \times 1 = £9$$

$$\text{Hours} = 2, \text{ earnings} = £9 \times 2 = £18$$

Two quantities that are in direct proportion will always produce a straight-line graph that passes through the origin.

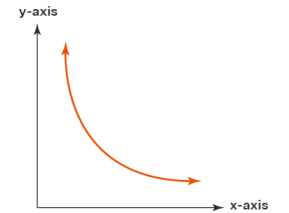


Inverse proportion

When the number of workers doing a job increases the time the job takes decreases.

When the number of workers decreases the time the job takes increases.

When we graph this relationship we get a curved graph.



Section 3: Questions

- Write the ratio 40 : 28 in its simplest form
- Write the ratio 5 : 10 : 15 in simplest form
- A necklace is made using gold and silver beads in the ratio 3 : 2. If there are 80 beads in the necklace:
 - How many are gold?
 - How many are silver?
- Twelve pencils cost 72p. Find the cost of 30 pencils.
- Jenny buys 15 felt-tip pens. It costs her £2.85. How much would 20 pens have cost?
- Mr A and Mr B share some money in the ratio 4:1
 - Write an equivalent ratio to this
 - How many parts are there all together?
 - What fraction does Mr A get?
 - If x is how much Mr A gets and y is the amount Mr B gets, write the ratio as a linear function
 - If they were to share £1000 how much would they get each?

Section 1: Key Vocabulary

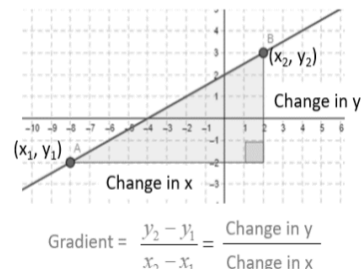
Tier 3 vocabulary	Definition
Axis	x (across) and y (up) axis. Labelled with numbers to plot coordinates.
Quadrant	The four parts of a set of axis. Starting with one in the top right and moving around anticlockwise.
Origin	The centre of a set of axis. (0,0)
Equation	Two things are equal and can be solved to find an unknown.
Linear equation	An equation that can be draw as a straight line.
Explicit	A function in which the dependent variable can be written in terms of the independent variable.
Quadratic	One or more terms in which the variable is raised to the power of two.
Gradient	Change in the value of a quantity with change in a given variable.

Tier 2 vocabulary

Tier 2 vocabulary	Definition
Coordinate	Two numbers written in brackets to describe a position on a set of axis. Can also be three numbers for 3D.
Plot	To draw a mark on a set of axis to show the location of a set of coordinates.
Substitute	To replace a letter with a number.
Graph	A set of axis with a line drawn showing an equation.
Table	A grid filled in to work out a set of answers.
Term	A single number or variable
Solve	Numerical value that satisfies the equation.
Simultaneous	Equations which are solved at the same time.

Section 2: Knowledge/skills

Finding the gradient of a straight line



Lines with the same gradient are parallel

Positive gradient

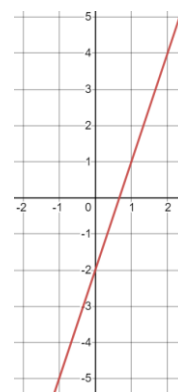
Negative gradient

Plotting a straight line

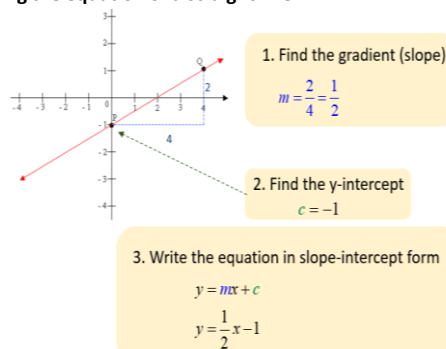
$$y = 3x - 2$$

Substitute x values into the equations to find the y values:

x	$3x - 2$	y
-1	$3(-1) - 2$	-5
0	$3(0) - 2$	-2
1	$3(1) - 2$	1

Plot $(-1, -5)$, $(0, 2)$, $(1, 1)$


Finding the equation of a straight line



Solving simultaneous equations graphically

Draw both lines on the same set of axes
Find their point of intersection for x and y

Section 3: Question


What is the gradient (m)?

What is the y -intercept?

What is the equation of the line?

Give the equation of a parallel line.

Plot $y = -3x + 4$ on the same axes.

x	$-3x + 4$	y
-1		
0		
1		

Is the point $(2, 10)$ on the line? How do you know?

Tier 3 vocabulary	Definition
Force	involves an interaction between two or more objects, and it causes a push or pull between the objects
Volume	The amount of space a 3D shape takes up, measured in units cubed
Density	a measurement of the amount of a substance contained in a certain volume
Capacity	how much fluid fits inside a container
Rate	How one measure changes in relation to another measure
Pressure	the force per unit area

Tier 2 vocabulary	Definition
Length	The measurement of how long something is
Millimetres (mm)	A metric unit, one 10th of a cm
Centimetres (cm)	A unit of length in the metric system, equal to one thousandth of a metre
Metre (m)	A unit of length in the metric system, equal to 100 cm
Kilometres (km)	A unit of length in the metric system, equal to 1000m
Gram (g)	A metric unit of mass equal to one thousandth of a kilogram
Kilogram (kg)	A metric measure of mass equal to 1000 grams
Millilitres (ml)	One thousandth of a litre
Centilitre (cl)	A metric unit of capacity, equal to one hundredth of a litre
Litres (L)	A metric unit of capacity, equal to 1000 ml
Speed	A measure of how fast something is travelling

Section 2: Conversions

Length

÷ 100

÷ 1000

cm

m

km

x 100

x 1000

Mass

÷ 1000

÷ 1000

mg

g

kg

x 1000

x 1000

Capacity

÷ 10

÷ 100

ml

cl

L

x 10

x 100

Time

÷ 60

÷ 60

seconds

minutes

hours

x 60

x 60

Area

÷ 100²

÷ 100³

cm²

m²

cm³

m³

x 100²

x 100³

Volume

Section 2: Useful formulae

speed = $\frac{\text{distance}}{\text{time}}$

density = $\frac{\text{mass}}{\text{volume}}$

pressure = $\frac{\text{force}}{\text{area}}$

Section 3: Distance time graphs

Key facts

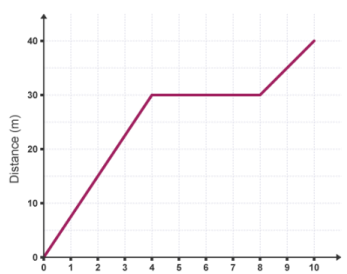
- Shows distance on the vertical axis and time on the horizontal axis
- The gradient of the line tells us the speed
- A horizontal line on a **distance-time graph** shows that the object is **stationary** (not moving because the distance does not change)
- A sloping line on a distance-time graph shows that the object is moving.

Example

In the first 4 seconds, 30m was covered so
Speed = $30 \div 4 = 15 \text{ m/s}$

Questions

How long was the item stationary?
What was its speed for the last 2 seconds?



Section 3: Speed time graph

Key facts

- The gradient of the graph represents the rate of change.
- A positive gradient shows acceleration. A negative gradient shows deceleration.
- A straight line on the graph means that the rate of change is constant
- The area under a speed-time graph represents the distance travelled
- Rate of change = $\frac{\text{final speed} - \text{initial speed}}{\text{time taken}}$

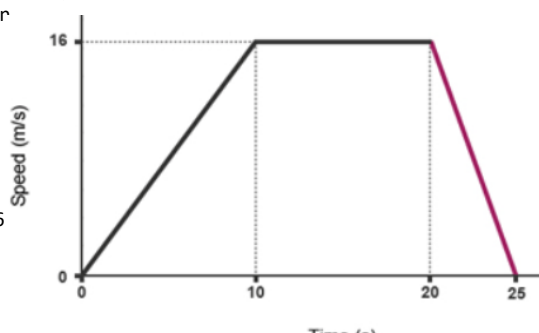
Calculating the rate of change

Between 0 and 10 seconds
Final speed = 16 Initial speed = 0
 $\frac{16 - 0}{10} = 1.6 \text{ m/s}^2$

Between 10 and 20 seconds
Final speed = 16 Initial speed = 16
 $\frac{16 - 16}{10} = 0$

Between 20 and 25 second
 $\frac{0 - 16}{5} = -3.2 \text{ m/s}^2$

The negative answer shows **deceleration**



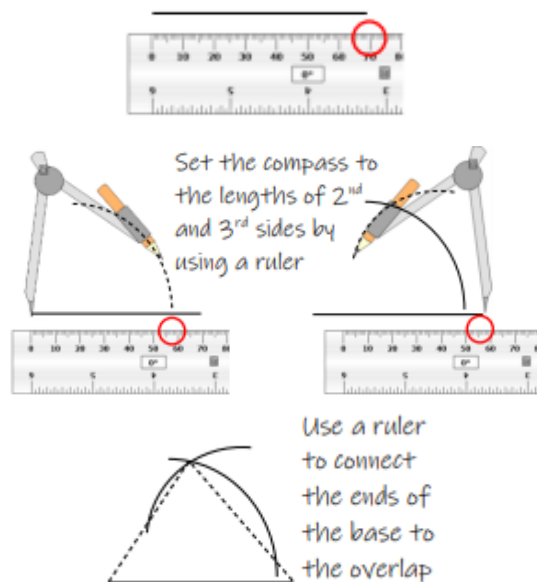
Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Perpendicular	At a 90° angle
Parallel	Lines that remain the same distance apart
Bisect	Cut in two equal pieces
Arc	Part of the outline of a circle
Locus	A path or shape formed by a number of points satisfying certain rules
Loci	The plural of 'locus'
Angle bisector	A line that cuts an angle exactly in half
Perpendicular bisector	A perpendicular line that cuts a line exactly in half

Tier 2 vocabulary	Definition
Equidistant	Equal distance
Compass (sometimes referred to as a pair of compasses)	A mathematical instrument that keeps the pencil point and the point of the compass at a constant distance from each other
Construct	To make a mathematical drawing usually involving the use of a combination of pencil, ruler, compass and protractor

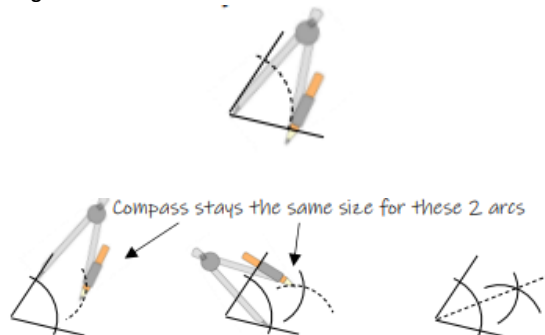
Section 2: Constructions

SSS Triangle

Draw the 1st side as a base

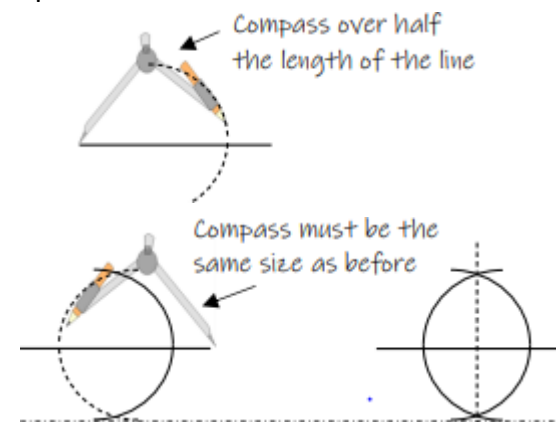


Angle bisector



Section 3:

Perpendicular bisector



Standard loci

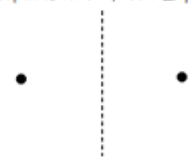
Equidistant from a point



Equidistant from a line

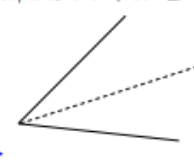


Equidistant from 2 points



The same as a perpendicular bisector

Equidistant from 2 lines



The same as an angle bisector

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Communicable Disease	Disease caused by pathogens which can be passed from person to person
Non-communicable Disease	Disease which cannot be passed from person to person. Is caused by a problem in the body.
Cardiovascular Disease	Disease affecting the heart and circulatory system, can high blood pressure, heart attack and strokes
Pathogen	A microorganism that can cause disease eg virus, bacteria and protist
Vector	An organism that carries disease from one person to another
Lysozyme	An enzyme which breaks down bacteria, part of the bodies chemical defense.
Antigens	Protein markers on the surface of any cell
Antibodies	Proteins released from lymphocytes which destroy or inactivate a pathogen
Tier 2 vocabulary	Definition
Health	A state of complete physical , social and mental well-being
Disease	An illness that prevents the body from working properly
Vaccine	Contains a weakened or inactive pathogen or bits of the antigen.
Immunisation	Artificial immunity triggered by a vaccine

Section 2: Types of Disease

Communicable Diseases

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

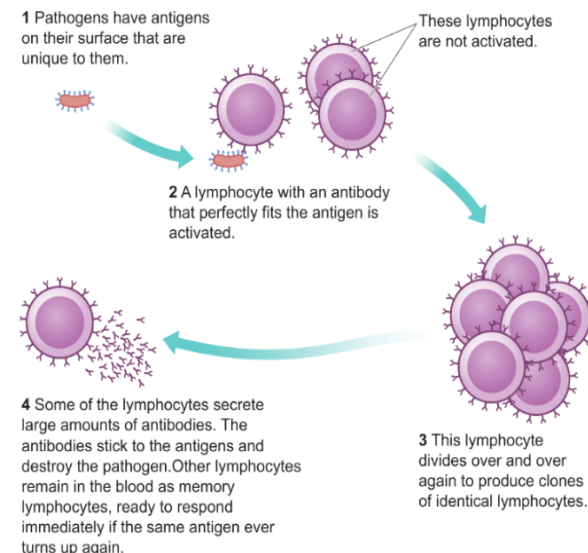
Non-Communicable Diseases

Caused by many different factors;

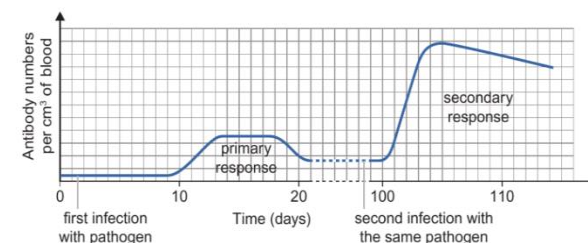
Genetic Disorder - Eg Sickle Cell Anaemia, Cystic Fibrosis
Malnutrition - Eg Scurvy (lack of vit C) or Anaemia (lack of Iron)
Lifestyle:
Alcohol - causes Liver Cirrhosis
Smoking - causes cardiovascular disease
Obesity - causes cardiovascular disease

$$\text{Body Mass Index} \\ \text{BMI} = \frac{\text{Mass}}{\text{Height}^2}$$

Section 3:



B how the immune system attacks a pathogen



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

Vaccination Task

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

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

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Ionic bond	Electrostatic forces between opposite charged ions.
Electrostatic forces	Forces attracting ions which have opposite charges.
Cation	Positive charged ions – formed when metals lose electrons.
Anion	Negative charged ions – formed when non-metals gain electrons.
Ionic compounds	Formed from positive and negative ions held together by ionic bonds.
Dot and cross diagram	A diagram which uses symbols (dots and crosses) to show the arrangement of electrons.
Ionic lattice	The alternating arrangement of positive and negative ions in an ionic solid.
Tier 2 vocabulary	Definition
Bonds	Forces of attraction that hold atoms together.
Ions	Charged particles formed when atoms gain or lose electrons.
Property	The way a substance behaves e.g. it conducts electricity.
Aqueous	A substance dissolved in water.
Molten	When a substance has been melted

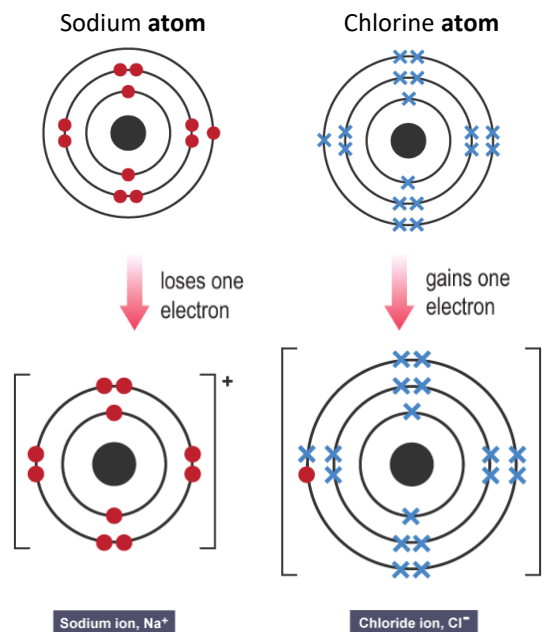
Section 2: Ionic bonding

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

Forming ions

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

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



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

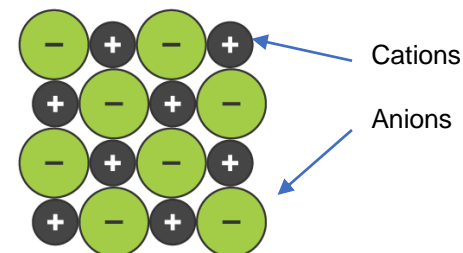
Non-metal ions are negative because they have gained electrons and contain more negative electrons than positive protons

Section 3: Ionic compounds

Common ions

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

Ionic Lattice



Properties of ionic compounds

High melting points

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

Electrical Conductivity

Solids

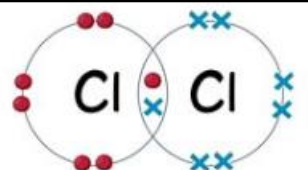
- Do **NOT** conduct electricity
- Because **ions cannot** move

Molten or dissolved

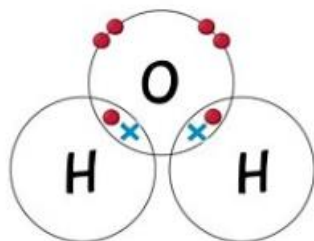
- **Do** conduct electricity
- Because **ions can** move

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Molecular	Substance containing groups of non-metal atoms held together by covalent bonds.
Covalent bond	Shared pair(s) of electrons.
Single bond	One shared pair of electrons.
Double bond	Two shared pairs of electrons.
Molecular formula	A formula listing the atoms in the molecule e.g. CH ₄
Structural formula	A formula which uses lines to represent the bonds and show how they are attached.
Valency	The number of electrons in the outer shell
Simple covalent	Substances made from a small number of atoms joined together (less than 100 atoms)



chlorine



Water

Section 2: Simple Covalent Substances

Melting point

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

Electrical Conductivity

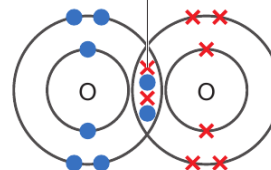
- Do **NOT** conduct electricity
- There are **no electrons** which can move

single covalent bond



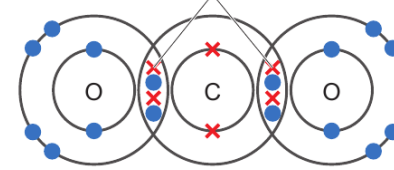
a hydrogen

double covalent bond

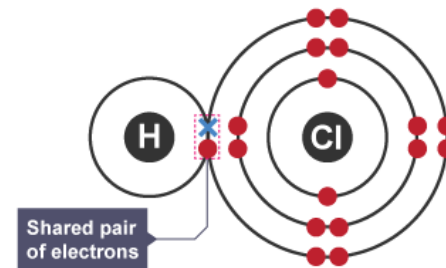


c oxygen

double covalent bond



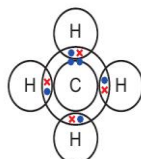
d carbon dioxide



Hydrogen chloride, HCl

CH₄

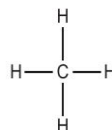
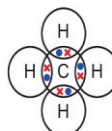
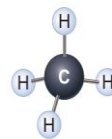
molecular formula



full dot and cross diagram



3D space filling


structural formula
(stick bonds)

dot and cross
(outer shell only)


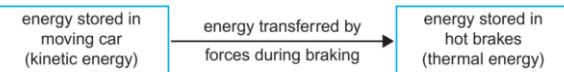
ball and stick

Different ways of representing molecules

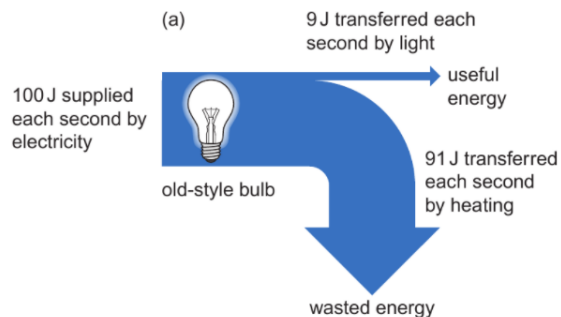
Diagram type	Advantages	Disadvantages
Molecular formula	Shows which atoms it contains	No information about the bonds or shape of molecule.
Structural formula	Shows how atoms are bonded	No information about the shape or size.
Dot and cross diagram	Shows the arrangement of the electrons	Does not show the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

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Gravitational field strength	The amount gravity pulls on an objects mass N/kg (on earth this is 10N/kg)
Gravitational potential energy	The energy an object gains as it moves away from a source of gravity
Kinetic energy	The energy stored in a moving object
Energy Stores	Where energy is stationary in one place and in one form
Energy transfers	Where energy can be transferred from one form or location to another
Energy transfer diagram	Shows the stores and transfers of energy going on in a particular situation
Sankey diagram	Graphical representation of the percentage of useful and waste energy in a transfer
Efficiency	A measure of the amount of useful energy transferred in a situation or device



B A flow diagram showing the energy transfers when a car brakes.



The efficiency of a device can be calculated using this equation:

$$\text{efficiency} = \frac{\text{useful energy transferred by the device}}{\text{total energy supplied to the device}}$$

Section 2: New Knowledge/Skills

Energy Stores and Pathways

The Eight Stores

Store	Description
Chemical	In batteries, fuels and food
Kinetic	In moving objects
Gravitational	In objects lifted above the Earth's surface
Thermal	In all objects, it increase with temperature
Magnetic	Objects within a magnetic field
Electrostatic	Around positively and negatively charged objects
Nuclear	Stored in the nucleus of an atom
Elastic	In objects that are stretched or squashed

The Four Pathways

Pathway	Description
Mechanically	By forces such as friction
Electrically	When there is a current flow
By heating	Due to a temperature difference (conduction, convection)
Radiation	e.g. waves such as light and sound

In any example of something bouncing, falling, rising in the air, swinging etc. There is an interchange between kinetic and gravitational energy.

The gravitational energy top of drop

Transferred mechanically by forces

Into kinetic energy

If there is no drag the kinetic energy at the bottom will be equal to the gravitational energy at the top

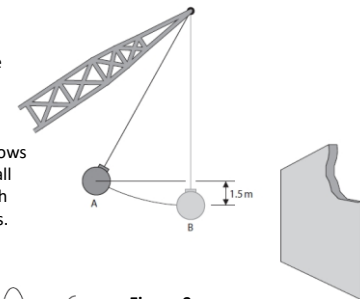


Section 3: practice questions

Figure 8 shows a demolition ball of mass 400 kg. The ball is used to demolish a wall.

Figure 8

After knocking down the wall, the ball will swing freely.



The graph in Figure 9 shows how the height of the ball above ground varies with time during three swings.

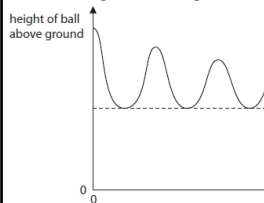


Figure 9

1. Explain how the energy within the system changes during this time.

The system consists of the swinging ball and its surroundings.
(6)

Plan:

- List all the types of energy you can think of that might be linked to this (*don't worry if they are not correct at this point, just come up with ideas, remember there are 8 stores of energy*)
- List all the ways energy might be being transferred (remember there are 4 ways energy can be transferred)
- Label on the diagram what types of energy the ball has at different times
- Label on the graph these types of energy
- Is some energy wasted along the way? How?
- What order will you write the information in? Where would you start?

Now write your answer, using proper sentences, proper scientific words and in a sensible order

- Calculate the kinetic energy when it is at the bottom of the first swing
- Why is the actually kinetic energy likely to be less than this
- H:** Hence calculate the maximum velocity of the ball

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Thermal conductivity	A measure of how good a material is at allowing heat to transfer through it
Convection	Hot fluids rise as they have more energy and become less dense (lighter)
Convection Current	A flow of hot and cold fluids, rising and sinking in a cycle in a given space
Infra-red Radiation	Electromagnetic waves given off from hot objects, absorbed and emitted by darker objects
Renewable	Energy resources that will be available again after being used
Non-renewable	Energy resources that will run out and will not be there again
Climate change	The changes in the weather, global temperature and rainfall across the Earth
Carbon Neutral	A resource that removes as much CO ₂ from the atmosphere as it produces
Weather dependent	An energy resource that is not always available depending on the weather
Tier 2 vocabulary	Definition
Conduction	Where heat energy is transferred through the collisions of vibrating particles
Thermal Insulator	A material that does not allow heat energy to transfer through easily

Section 2: New Knowledge/Skills
<p>Conduction Heat transferred by vibrating particles transferring the energy from one to another during collisions.</p> <ul style="list-style-type: none"> <i>Best thermal conductors:</i> metals <i>Worst thermal conductors (insulators):</i> Vacuum, gasses, objects with pockets of gas like foam <p>Convection Hot fluid, expands, becomes less dense and therefore lighter and rises. Cold fluids contract, become more dense and sink This creates a convection current</p> <p>Radiation (infra-red) Electromagnetic wave like light, emitted from hot objects</p> <ul style="list-style-type: none"> <i>Best emitters and absorbers of radiation:</i> Matte Black <i>Worst emitters and absorbers of radiation:</i> Shiny silver/white <p>Draw and describe how you can keep hot drinks warm in a thermos flask.</p>

Section 3: Energy Resources					
Energy Resources					
Energy Resource	Description	Advantages	Disadvantages		
Nuclear	Using the energy from nuclear reactions to heat water	Efficient, not weather dependent, no pollution	Will eventually run out, danger from nuclear waste		
Biofuels	Burning plant and animal waste to create heat same as fossil fuels	Carbon neutral, not weather dependent, easy to switch	Needs lots of land for crops		
Hydroelectric	Using gravitational energy of water held behind a dam to turn turbine	Not weather dependent, no fuel cost, no pollution	Floods a huge area, expensive to build		
Wind	Using wind turbines to turn a generator	No pollution, no fuel cost	Weather dependent, expensive to install		
Solar (photovoltaic cells)	Using the suns energy to convert straight into electricity	No pollution, no fuel cost, can be installed on rooves	Weather dependent, expensive to install		
Fossil Fuels (Coal, Oil and Gas)	Remains of dead plants and animals, burned to get steam to turn turbine	Efficient, not weather dependent, no new builds	Will run out, produces CO ₂ which adds to global warming		

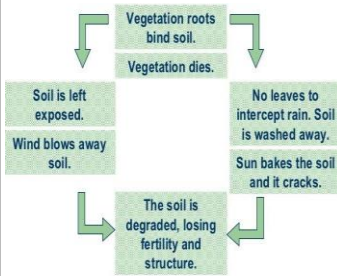
Over the last few decades, we have introduced more and more renewable resources, our use of coal and oil has reduced, but our use of natural gas has increased.

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

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

Section 2: New Knowledge

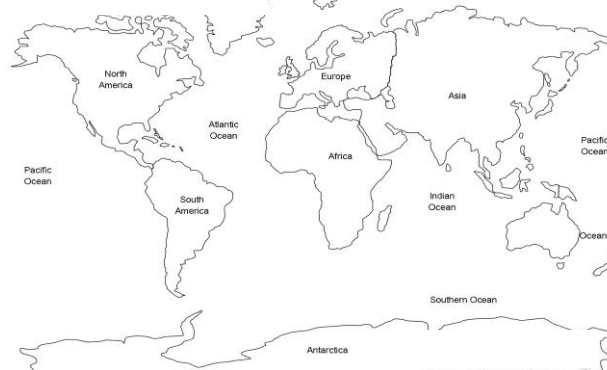
The causes of desertification



Measures of development

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

The continents



The countries of Africa



Section 3: Geographical Skills

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

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

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Referendum	A direct vote by the electorate on a proposal or a law.
EEC	European Economic Community, the name of the EU between 1957 and 1993.
EU	The EEC was renamed the EU in 1993 to reflect the closer political ties of the 27 member countries.
Terrorism	The use of violence to achieve political aims
Jihad	Islamic holy war against unbelievers
Treaty	An agreement between different nations.

Tier 2 vocabulary

Tier 2 vocabulary	Definition
Extremism	Aggressive religious or political views.
Islam	Religion based on the teachings of Muhammad.
Muslim	A person who believes in Islam

Section 2: New Knowledge

The 9/11 attacks

1908- A British company discovers oil in the Middle East and begin to interfere there.

1917- Britain promises that Palestine can be a homeland for the Jewish people.

1930s –Jewish immigrants poured into British controlled Palestine, this causes tensions between Arabs and Jews.

1947- Palestine is divided into two countries, Israel and Palestine, but Arab countries are not happy about this and the USA supports Israel.

1960's Extremism in Egypt and Saudi Arabia.

1979- The Soviets invade Afghanistan.

1988- al-Qaeda is formed

1990- Iraq invades Kuwait.

1992- al-Qaeda flees to Sudan.

1996- al-Qaeda expelled from Sudan and moves to Afghanistan.

1988- al-Qaeda attack the US embassies in Kenya and Tanzania.

11th September 2001- al-Qaeda attack the Twin towers in the USA

How can learning about Europe's recent past help us to understand Europe today?

1957 The European Economic Community was set up between six Western European countries.

1961 The French government refused to agree to Britain joining the EEC.

1973 The British Conservative government applied again and were successful in joining the EEC.

1975 The British Labour government had a referendum on membership. The British people voted to stay in the EEC.

1980s Some Conservatives, who had thought the EEC would be about free movement of money and more trade, began to dislike the controls on people's rights that came from Europe.

1992 Many Conservatives did not like the Treaty of Maastricht, which created the EU and started to put the economies of EU countries closer together.

2000s The EU expanded and the British Labour government supported this. The Euro was created.

2015 The Conservative Prime Minister promised a referendum on membership of the EU.

2016 The British people voted by 52% to 48% to leave the EU.

Section 3: Enquiry Questions

Would the 9/11 attacks have happened without Osama Bin Laden

How can learning about Europe's recent past help us understand Europe today?

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 photograph taken?

Provenance- Who took the photo? Who is it the audience?



Guardian cartoon May 2015

Section 5: Interpretations

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

For example:

Historian Lawrence Wright has argued that the 9/11 attacks would not have happened without Osama bin Laden.

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Evidence	A thing or set of things helpful in forming a conclusion or judgment
Proof	Any evidence that establishes or helps to establish the truth of something.
Interpretation	The meaning assigned to another's creative work, action, behaviour, etc.
Argument	A course of reasoning aimed at demonstrating truth or falsehood
Theology	The study of the nature of God and religious truth.
Allah	The Arabic word for God in Abrahamic religions.
Premise	Statement from which another is inferred or follows.
Conclusion	The proposition established from one or more premises.
Valid/invalid	Containing premises from which the conclusion may logically be derived or not: <i>a valid/invalid argument</i> .
Suffering	Pain or distress caused by injury, illness or loss. Suffering can be physical, emotional/psychological or spiritual.
Enlightenment	Knowledge, wisdom, or awakened intellect, of a Buddha. A sudden insight into a transcendental truth or reality.
Karma	The totality of a person's actions and conduct during successive incarnations, that influence their rebirth.
Natural Suffering	Pain or distress caused by natural events such as earthquakes, flood, disease, etc.
Moral suffering	Pain or distress caused by the actions of humans such as killing, theft, etc.

Section 2: Key Questions
<p>Facts, beliefs and opinions</p> <p>Describe the difference between facts, beliefs and opinions. Find out more about the place of interpretation and viewpoints in our views of the world. Consider questions such as: what do we mean by evidence, proof or likelihood in relation to religious questions? Apply words like 'evidence', 'proof' 'interpretation' and 'argument' accurately in discussions about God.</p> <p>The Kalam Argument</p> <p>Describe the Islamic argument that God must exist because the universe had a beginning, and must have had a divine cause (the Kalam Cosmological argument). Find out more about Muslim beliefs in God / Allah. Consider questions about the Muslim experience of prayer, nature and theology which lead Muslims to be sure God / Allah is real. Think of reasons why some people think it is rational and logical to believe in God.</p> <p>Buddhist views on God</p> <p>Describe Buddhist understandings of the importance of reducing suffering, and the unimportance of dogma about God. Find out more about the Buddhist view of life. Consider questions such as: what matters most to Buddhists? Why did the Buddha refuse to answer 'God-questions'? Think of reasons why some people don't care about God at all.</p> <p>Buddhist views on Suffering</p> <p>Think about the story of the enlightenment of the Buddha and the effect this had on his life. Think about the idea of being 'enlightened' in life for yourselves. Consider questions about the causes of suffering and how to reduce suffering. Think of reasons why Buddhists seek to live without relying on God, but relying on their own effort, mindfulness and practice.</p>

Section 3: Assessment Essay Question:
<p>Assessment Essay Question:</p> <p>Do we need to prove God's existence?</p> <p>In answering the question - you should consider:</p> <ul style="list-style-type: none"> What are the differences between facts, beliefs and opinions? Why do Muslims believe in God? Do they believe God can be proven to exist? Why did the Buddha think belief in God was unimportant? In Buddhist thinking, what can save us from pain and suffering? <p>Skills checklist – As you write your essay check that you have included...</p> <p>Knowledge – facts and religious or non-religious beliefs,</p> <p>Impact of belief – how it affects what people think and do,</p> <p>Specialist terms,</p> <p>Sources of authority – where people get their ideas/beliefs from – quotations, Judgement – how strong, valid or sound the argument is,</p> <p>Opinion – at least 2 different points of view</p>

Section 1: Key Vocabulary - throughout your homeworks/classwork - find the definition of the following words.

Tier 3 vocabulary	Definition
Life	
Purpose	
Death	
Humanist	
Hedonist	
Creed	
Euthanasia	
Abortion	
Sanctity of Life	
Hell	
Saviour Siblings	
Funerals	
Heaven	

Sources of Authority

John 5:24-25

John 5:28-29

John 14:1-7

Corinthians 15:51-576

Revelations 21:1-4

Nicene Creed

Section 2: New Knowledge/Skills

Key Questions:

- What do people believe about life?
- What do people believe about the afterlife?
- What is the sanctity of life?
- What is abortion?
- What is euthanasia?
- Has medicine gone too far?
- Why do we have funerals?
- What do Buddhists believe about life and death?
- Does Death matter to Humanists?
- Is this life hell?

Abortion

UK Law - legal upto 24 weeks (in some circumstances) with the agreement of two doctors.

Christianity - some argue we should be compassionate and permit abortion if the mothers life is in danger. Other Christians say it is a moral evil because every life is a gift from God.

Euthanasia

UK Law - Illegal and considered either murder or manslaughter and carries a life in prison penalty. Hospices and palliative care offer pain relief and comfort as end of life care.

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

Section 3: Other subject specific things

Assessment Essay Question:

Is Death the End?

In answering the question - you should consider:

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

Skills checklist –

As you write your essay check that you have included...

Knowledge – facts and religious or non-religious beliefs,

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




Specialist terms,

Sources of authority – where people get their ideas/beliefs from – quotations,

Judgement – how strong, valid or sound the argument is,

Opinion – at least 2 different points of view

Section 1: Key Vocabulary/Questions					Section 2: Grammar														
Tier 2 vocabulary		Definition			Negative expressions These negative expressions all form a sandwich around the verb in French: <table><tr><td>ne...pas</td><td colspan="2">not</td></tr><tr><td>ne...jamais</td><td colspan="2">never</td></tr><tr><td>ne...plus</td><td colspan="2">no longer, not any more</td></tr><tr><td>ne...rien</td><td colspan="2">nothing, not anything</td></tr></table>			ne...pas	not		ne...jamais	never		ne...plus	no longer, not any more		ne...rien	nothing, not anything	
ne...pas	not																		
ne...jamais	never																		
ne...plus	no longer, not any more																		
ne...rien	nothing, not anything																		
the superlative	used when something is the best, least, most etc.																		
Negation	the absence or opposite of something actual or positive.																		
The conditional tense	used to talk about things that would happen or that would be true under certain conditions			Je ne mange plus de bœufI no longer eat beef ☆ After pas, jamais and plus, un/une and du/de la/des change to de/d' : Je mange du porc.I eat pork. Je ne mange jamais de porcI never eat pork															
Possessive adjectives	used in front of nouns to indicate to whom or to what those nouns belong.																		
Questions	Translation																		
1.Qu'est-ce qu'on mange/tu manges ?	What do we eat/you eat?																		
2. Est-ce que tu manges de la viande ?	Do you eat meat ?			The superlative The superlative is used to say 'the most' or the least' etc. In English, we use 'the most...' or add '-est' to the adjective. In French: <table><tr><td></td><td>adj. before noun</td><td>adj. after noun</td></tr><tr><td>Masc. nouns</td><td>le plus grand village</td><td>le village le plus important</td></tr><tr><td>Fem. nouns</td><td>la plus grande ville</td><td>la ville la plus importante</td></tr></table>				adj. before noun	adj. after noun	Masc. nouns	le plus grand village	le village le plus important	Fem. nouns	la plus grande ville	la ville la plus importante				
	adj. before noun	adj. after noun																	
Masc. nouns	le plus grand village	le village le plus important																	
Fem. nouns	la plus grande ville	la ville la plus importante																	
3. Est-ce que tu es pour ou contre le végétarisme ?	Are you for or against vegetarianism ?																		
4. Qu'est-ce qu'il faut faire pour protéger les animaux ?	What must we do to protect animals ?			The conditional tense The conditional tense is translated using the word 'would'. J'aimerais and je voudrais are two very useful conditional tense verbs. They both mean ' I would like ' and are followed by the infinitive. J'aimerais <i>changer</i> le monde. I would like <i>to change</i> the world. Formation: Use the same future stem (usually the infinitive) and the imperfect tense endings : <table><tr><td>Je jouerais</td><td>I would play</td></tr><tr><td>Tu jouerais</td><td>you would play</td></tr><tr><td>Il/elle/on jouerait</td><td>he/she/we would play</td></tr><tr><td>Nous jouerions</td><td>we would play</td></tr><tr><td>Vous joueriez</td><td>you would play</td></tr><tr><td>Ils/elles joueraient</td><td>they would play</td></tr></table>			Je jouerais	I would play	Tu jouerais	you would play	Il/elle/on jouerait	he/she/we would play	Nous jouerions	we would play	Vous joueriez	you would play	Ils/elles joueraient	they would play	
Je jouerais	I would play																		
Tu jouerais	you would play																		
Il/elle/on jouerait	he/she/we would play																		
Nous jouerions	we would play																		
Vous joueriez	you would play																		
Ils/elles joueraient	they would play																		
5. Qu'est-ce que tu fais pour aider l'environnement ?	What do you do to help the environment																		
6. Qu'est-ce que tu as fait récemment pour aider l'environnement ?	What have you done recently to help the environment?																		
7. Qu'est-ce que tu voudrais faire pour changer le monde ?	What would you like to do to change the world?																		
8. Pourquoi serait –il important d'aider ?	Why would it be important to help?																		
Possessive adjectives																			
	m	f	pl	before a vowel															
my	mon	ma	mes	mon															
your	ton	ta	tes	ton															
her/his/one's	son	sa	ses	son															
our	notre	notre	nos																
your	votre	votre	vos																
their	leur	leur	leurs																

Section 3: WAGOLL	
<p>J'habite à Lyon en France avec ma famille. Au collège en France, les élèves mangent la nourriture saine et équilibrée par exemple on mange souvent de la viande, du riz, de la salade et du yaourt. On boit de l'eau. Je pense que c'est plus sain que le fast-food. Je mange de la viande mais mon ami ne mange plus de viande. Je trouve que le porc est savoureux cependant l'empreinte carbone des légumes est moins grande que l'empreinte carbone de la viande. Je suis pour le végétarisme et je voudrais commencer à manger moins de viande pour protéger l'environnement. Pour protéger les animaux et la nature, il faut ramasser les déchets, manger moins de viande, utiliser moins de plastique et consommer moins d'énergie. À mon avis, il ne faut jamais acheter des souvenirs d'origine animale. Quand j'étais plus jeune, j'utilisais les sacs en plastique tous les jours. Maintenant je recycle le plastique et j'utilise les sacs réutilisables. L'année dernière, on a organisé une campagne anti-plastique au collège. On a changé des idées et on n'utilise jamais de bouteilles en plastique. À l'avenir, je voudrais utiliser moins d'eau à la maison. J'aimerais aussi réparer plus de choses et consommer moins. À mon avis, le plus grand problème pour les ados, c'est l'environnement.</p>	
<p>À savoir: How to agree/disagree</p>	
<p>Je suis pour/contre... À mon avis... Je pense que... Je trouve que... Tu es d'accord? Je suis d'accord. Je ne suis pas d'accord. tort! Tu as raison! Tu rigoles! cependant par contre d'un côté...de l'autre côté..</p>	<p>I am for/against... In my opinion I think that I find/think that Do you agree? I agree I don't agree. Tu as tort! You're wrong! You're right! You must be joking! however on the other hand on one hand,...on the other hand</p>
<p>🔍 Research the following French charities. What do they do?</p>	
  	

FRENCH Y9 Word list Summer 1.A

vb	il faut +infinitive	it's necessary/you must
vb	il ne faut pas +infinitive	it's not necessary/you mustn't
vb	il ne faut jamais+ infinitive	it is never necessary/you mustn't ever
inf	ramasser les déchets	to pick up rubbish
inf	recycler	to recycle/ recycling
inf	consommer	to consume/consuming
	moins de viande	less meat
	moins de plastique	less plastic
	moins d'énergie	less energy
	à pied/à vélo	by foot/ by bike

FRENCH Y9 Word list Summer 1.B

adv	extrêmement	extremely
vb	Je trouve que c'est...	I find that it's
	trop d'eau	too much water
	trop d'énergie	too much energy
inf	refuser le plastique	refuse/reject
	plus de produits bio	more organic products
	moins de viande	less
nf	une bouteille réutilisable	a reusable bottle
nm	un sac recyclable	a recyclable bag
nm	le verre	(the) glass

FRENCH Y9 Word list Summer 1.C

pos adj	votre/vos	Your (singular/plural)
pos adj	notre/nos	our (singular/plural)
pos adj	leur/leurs	their (singular/plural)
inf	protéger l'environnement	to protect the environment
	ne... plus	no longer
	ne... rien	nothing/not anything
	des produits laitiers	dairy products
	des produits d'origine animal	products of animal origin
	en cuir	(made of) leather
adj	végétarien(ne)	vegetarian

FRENCH Y9 Word list Summer 1.D

nm	le végétarisme	vegetarianism
nm	le véganisme	veganism
vb	Je suis pour...	I am for
vb	Je suis contre...	I am against
vb	Tu as raison	You are right
vb	Tu as tort	You are wrong
vb	Je suis d'accord	I agree
adv	par contre	however
	d'un côté...	on one hand
	d'un autre côté	on the other hand

FRENCH Y9 Word list Summer 1.E

	le plus grand	the biggest/tallest (masc.)
	la plus grande	the biggest/tallest (fem.)
adj	grave	serious
adj	sain(e)	healthy
adj	lent(e)	slow
	bon(ne) pour la santé	good for your health
adj	pratique	practical
adj	recyclé(e)	recycled
inf	éliminer	eliminate
inf	(pour) réduire	(in order) to reduce

FRENCH Y9 Word list Summer 1.F

inf	devenir	to become/becoming
vb	(il est) devenu	(it) became
vb	j'aimerais + infinitive	I would like to + infinitive
vb	Je voudrais + infinitive	I would like to+ infinitive
inf	manifester pour	to protest for
	bon pour la santé	good for your health
	le plastique à usage unique	single-use plastic
nm	réparer plus de choses	repair more things
inf	réutiliser	to re-use
inf	important	important

REVISION: Scan the QR code below to access the word lists on Quizlet!

This QR code links to all [the French Y9 Quizlet sets.](#)



Phonics: i

éliminer

viande

bio

pratique

Phonics: -ui

suis

cuir

réduire

oui

Phonics: a

réutilisable

grave

ramasser

pratique

Phonics: -tion

pollution

éducation

Phonics: -ain

train

sain




main

maintenant

Section 1: Key Vocabulary/Questions	
Tier 2 vocabulary	Definition
Comparative adjective	used to compare things and say something is bigger, better etc. than something else
Superlative adjective	used to compare things and say something is the biggest, best etc.
Adjective declension	changing the form of adjectives so that it agrees in gender and number with the noun that it is describing
Masculine, feminine, neuter	the terms used to refer to the gender of German nouns

Question	Translation
1. Was ist das größte Umweltproblem?	What is the biggest environmental problem?
2. Was sollte man machen, um dieses Problem zu lösen?	What should we do in order to solve this problem?
3. Wie kann man die Umwelt schützen?	How can we protect the environment?
4. Was hast du neulich gemacht, um die Umwelt zu schützen?	What have you done recently to protect the environment?
6. Interessierst du dich für freiwillige Arbeit?	Are you interested in voluntary work?
7. Welche Arbeit willst du machen, um zu helfen?	What work do you want to do, in order to help?

Section 2: Grammar
Comparative and Superlative adjectives
The comparative
<ul style="list-style-type: none"> just add <i>-er</i> to an adjective
<i>klein -> kleiner (small -> smaller)</i>
<i>interessant -> interessanter</i>
<i>(interesting -> more interesting)</i>
<ul style="list-style-type: none"> Some shorter adjectives also add an umlaut to the vowel
<i>alt -> älter kalt -> kälter groß -> größer</i>
The superlative
<ul style="list-style-type: none"> use <i>am</i> before the adjective and add <i>-sten</i> to the end of the adjective add <i>-esten</i> if the adjective ends in a vowel or a <i>t</i>
<i>klein -> kleiner -> am kleinsten</i>
<i>alt -> älter -> am ältesten</i>
<ul style="list-style-type: none"> If you use a superlative adjective before a noun, add <i>-st</i> to the adjective and then the correct ending (masc./fem./nt.)
<div style="text-align: center;"> das große Problem das größere Problem das größte Problem </div>

Section 3: WAGOLL
<p>Ich wohne in Belper, in England. Ich interessiere mich sehr für den Umweltschutz, weil die Welt viele Umweltprobleme hat. Die Luftverschmutzung und die Wasserverschmutzung sind große Probleme, aber das größte Problem ist wahrscheinlich die globale Erwärmung. Meiner Meinung nach ist die globale Erwärmung wichtiger als die Abholzung. Um dieses Problem zu lösen, müssen wir alle helfen. Man sollte Energie sparen und Länder müssen erneuerbare Energie benutzen. Ich glaube, dass meine Schule umweltfeindlich ist. Neulich habe ich ein Projekt in der Schule gemacht, so dass wir Müll trennen und mehr recyceln. Zu Hause hat meine Familie auch Müll getrennt und weniger Strom benutzt.</p> <p>Ich interessiere mich sehr für freiwillige Arbeit. Samstags arbeite ich für eine Hilfsorganisation, die Flüchtlingen hilft. Wir trinken Tee und ich lehre ein bisschen Englisch. In der Zukunft will ich im Ausland arbeiten, um mit Armut und Obdachlosigkeit in anderen Ländern zu helfen.</p>
Gut zu wissen!
<div style="display: flex; align-items: center;"> <div style="flex: 1;">  </div> <div style="flex: 1; text-align: center;">  <p>Did you know that the UN has 17 sustainable development goals? https://unric.org/de/17ziele/ Go to this website and translate the goals from German to English.</p> </div> </div>


GERMAN Y9 Word list Summer 1.A		
	die Umwelt	environment
	die Gegend	area
	umweltfreundlich	environmentally friendly
	umweltfeindlich	environmentally unfriendly
	verwenden	to use
	benutzen	to use
	recyceln	to recycle
	Müll trennen	to separate rubbish
	verschwenden	to waste
	sparen	to save

GERMAN Y9 Word list Summer 1.B		
	der Strom	electricity
	der Verbrauch	use/usage
	das Licht	light
	ausschalten	to switch off
	die öffentlichen Verkehrsmittel	public transport (pl)
	zumachen	to close
	schließen	to close
	die Heizung	heating
	die Klimaanlage	air-conditioning
	baden	to bathe

GERMAN Y9 Word list Summer 1.C		
	die Armut	poverty
	die Arbeitslosigkeit	unemployment
	die Obdachlosigkeit	homelessness
	der Verkehr	traffic
	die Luftverschmutzung	pollution
	Flüchtlinge	refugees
	die Gesellschaft	society
	die Gewalt	violence
	der Schaden	damage
	überbevölkert	over-populated

GERMAN Y9 Word list Summer 1.D		
	die Abholzung	deforestation
	die Luftverschmutzung	air pollution
	die Wasserverschmutzung	water pollution
	verpesten	to poison, pollute
	die globale Erwärmung	global warming
	das Aussterben	extinction
	Tierarten	animal species
	die Lärmbelastung	noise pollution
	die Energiequelle	energy source
	verursachen	to cause

GERMAN Y9 Word list Summer 1.E		
	erneubar	renewable
	schützen	to protect
	vergiften	to poison
	zerstören	to destroy
	vernichten	to destroy
	bedrohen	to threaten
	das Kraftwerk	power station
	das Atomkraftwerk	nuclear power station
	der Biokraftstoff	biomass fuel
	saurer Regen	acid rain

REVISION: Scan the QR code to access the word lists on Quizlet!

This QR code links to all [the German Year 9 QUIZLET sets.](#)



Phonics: Z	
Abholzung	Verschmutzung
benutzen	zerstören
schützen	Heizung
Ziel	zumachen

Phonics: V	
verwenden	verschwenden
Verbrauch	Verkehrsmittel
Verschmutzung	überbevölkert
verpesten	verursachen

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Audience	The person/people who the document is aimed at.
Fitness for Purpose	The design and production of a document which meets the needs of the person who needs it.
Content	The pieces of information within a document. These could be text, image, diagram, maps, sound.
House Style	The layout, fonts, colour and images chosen by a particular business or organisation to represent its identity.
Alignment	The position of text, images and content within a document.
Proofreading	The task of checking through a document for any errors before submitting it to print/handing in.
Orientation	The direction the document is displayed in. Landscape (Sideways) Portrait (Lengthways)
Line Spacing	The amount of white space between typed text on a document.
Publication	The type of document that has to be produced
Canvas	The area to produce a digital file on.

Tier 2 vocabulary	Definition
Check	To identify any issues and errors with work.
Compose	To produce a document piece of work.
Obtain	To look/gather and use information.
Repeat	To copy a similar action from before.
Research	To gather knowledge about a subject.

Section 2: New Knowledge

Word Processing

Word Processing - This is the name given to a document which is created on a computer, usually using a piece of software such as Microsoft Word or Google Docs. Word processed documents contain primarily text based characters.

Fonts - Fonts are the name for characters word processed onto a document. Arial and Times New Roman are types of font. Font Sizes - Word processed documents are written in fonts no bigger than size 12.

Formatting Tools - Word processed documents can be enhanced using formatting tools. These included *Italics*, **Bold** and underlining.

Spell Checking - all word processed documents should be checked for any spelling errors before submitting to final publication.

Margins - Margins are areas of blank space at the horizontal and vertical edges of word processed documents. These make the document easier to read.

Presentation

Slides - A slide is the name of the blank space which information goes onto in a presentation.

Layout - Slides can be set into different design choices dependent on the content. This is called the layout.

Animations - This is the name given to content, typically images that move on a slide.

Transitions - Transitions are effects put onto slides to make content move automatically based on different timings. Transitions keep the viewer's attention.

Graphics

Pixels - Graphic images are produced using tiny dots of colour which are called pixels.

Transparency - Graphic images can be set up on canvas setups with no background colour. These are known as transparencies.

File Format - this is the name of the type of graphic file and what it is saved as. JPEG, PNG and BMP are typical graphical file formats.







Desktop Publishing (DTP)

WYSIWYG - **What You See Is What You Get**, is a term in Desktop Publishing (DTP) for showing what is on screen is what it will look like when it is printed or exported.

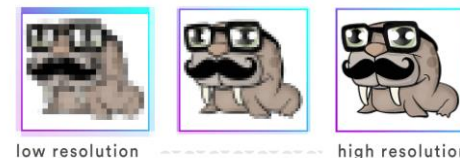
Publishing Formats - DTP files can be saved as images or exported as a PDF ready for printing or viewing online.

Section 3: Useful Subject Information

Useful keyboard shortcuts for the project tasks:

 Open CTRL + O	 Save CTRL + S	 Print CTRL + P
 Cut CTRL + X	 Copy CTRL + C	 Paste CTRL + V

In Desktop Publishing (DTP), Word processing and Graphics we work with images. The quality of images depends on the resolution of the image used. High resolution images are often better quality as they contain more detail, but they create larger file sizes through increased memory usage. Lower quality images take up less memory on the computer but they lack the detail.



Key Timelines in the History of Word Processing, Desktop Publishing (DTP) and Graphics:

Word Processing

1978 - first commercial word processing package formally released called WordStar.

1990 - Microsoft Office suite released on sale.

2006 - Google Docs suite released online.

Graphics Software

1985 - Microsoft Paint first formally released as part of Windows 1.0.

1990 - Photoshop 1.0 first formally released on sale.

Desktop Publishing

1991 - Microsoft Publisher desktop publishing package goes on sale.

PE: Tennis

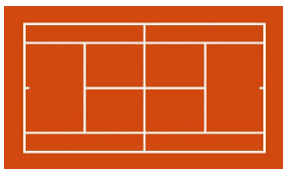
Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Volley	Playing the ball before it bounces when you are close to the net.
Half-volley	Playing the ball low down just after it has bounced.
Service	Starting the rally with a shot from behind the baseline.
Service box	The box near the net where the service needs to land.
Baseline	The line at the back of the court.
Tramlines	The lines down the side of the court used for singles and doubles.
Drive	Hitting the ball hard and low across the net.
Lob	Hitting the ball over your opponent if they are close to the net.
Drop-shot	Hitting the ball softly over the net when your opponent is at the back of the court.

Section 2: New Knowledge/Skills

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

On the court below, can you recognise the following lines?

baseline - **service box** - **service line** - **tramlines**
singles sideline - **doubles sideline** - **centre service line**



Scoring in Tennis:

Which of these numbers are used?

10 15 20 30 35 40 45 50

PE: Striking and Fielding

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Half-rounder	How many ways can you think of that will lead to half a rounder being scored?
No-ball	When the ball does not arrive at the batter between knee height and the top of the head, on the hitting side of the body.
Run-out	When the field touch the post or the stumps with the ball before the batter arrives.
Obstruction	In rounders, when a fielder gets in the way of the batter.
Forward defensive	The most important shot in cricket to help prevent the ball hitting the stumps.
Drive	The most important attacking shot in cricket - hitting the ball along the floor.
Grip	To throw or bowl the ball in rounders and cricket, use a two fingers grip.
Overarm throw	An important skill for fielders to return the ball to the wicketkeeper/base fielders.
Long barrier	Getting down on one knee to make a barrier to stop the ball

Section 2: New Knowledge/Skills

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

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

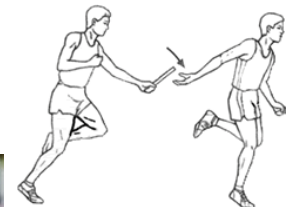


PE: Track

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Sprint start	A crouched position giving a sprinter the best chance of a fast start.
Staggered start	For events, which go round curves on the track, different start positions are needed.
Lap time	Comparing an athlete's time for each lap they complete.
Split time	An athlete's time at a certain point in a race.
Changeover box	A 20m section marked out on the track inside which the baton must be exchanged.
Down sweep	The quickest way to carry out a baton pass by placing the baton down into the outgoing runner's hand.
Incoming/outgoing runner	The two runners involved in a relay changeover are the incoming and the outgoing runners.
Sprint technique	Paying attention to what each part of the body is doing to maximise speed.
Stride pattern	Taking a set number of strides between each hurdle.

Section 2: New Knowledge/Skills

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



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

PE: Field (Jumping)

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Straddle technique	An alternative technique to the scissors using the foot nearer to the bar to take-off.
Fosbury flop	The most advanced high jump technique involving a backwards dive over the bar.
Hang technique	A basic long jump technique where the back is arched and the hands are up during flight.
Acceleration	Speeding up to maximum during the run-up is essential in long jump and triple jump.
Leg shoot	Pushing the legs out in front when landing in long jump to maximise the distance jumped.
No-jump	The phrase used when the jumper breaks a rule and the jump doesn't count.

Section 2: New Knowledge/Skills

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



The 'hang' technique for long jump.



The Fosbury flop technique for high jump.

PE: Field (Throwing)

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Approach	A run-up or footwork routine to get extra power into the throwing action.
Side-step	A simple technique for the shot-put approach.
Glide	A more advanced approach for the shot-put using a backwards hop.
3 step approach	The basic javelin approach needs to be limited to L...R,L for a right hander and R...L,R for a left hander.
Angle of release	In throwing events, approximately 45 degrees is required to allow the implement to fly furthest.
Speed at release	The thrower must try to produce maximum speed of the arm to release the implement.
Trajectory	The flight path of the implement which will be determined by the angle of release.
No-throw	The phrase used when the thrower breaks the rules, most commonly by overstepping the line.

Section 2: New Knowledge/Skills

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



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

PE: Running

New knowledge/Skills

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

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

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

PE: Health and Fitness

New knowledge/Skills

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

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

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

PE: Leadership

New knowledge/Skills

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

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

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

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Realism	The quality of representing a person or a thing in a way that is accurate and true to life.
Composition	The way in which different elements of an artwork are combined or arranged.
Focus	Clear visual definition.
Naturalistic	Closely imitating real life or nature.
Coarse	Rough or harsh in texture.
Intense	Extreme strength
Stippling	A painting technique using small dots of colour.
Symmetry	The quality of being made up of exactly similar parts facing each other.

Tier 2 vocabulary

Tier 2 vocabulary	Definition
Texture	The feel, appearance or consistency of a surface.
Highlight	Areas of an image that have been captured by strong lighting or lighter areas of colour.
Layers	A gradual build up of applications to require the desired effect.
Crop	A zoomed in section of an original image.
Strokes	How paint is applied to a surface, often to create a smooth effect..
Detail	The parts you notice when you look closely.
Blend	Mixing together so the colours/textures combine and disappear into one another.

Section 2: New Knowledge/Skills

Photorealism

A style of Art and Sculpture characterised by the highly detailed depiction of ordinary life with the impersonality of a photograph.

Wildlife Artists

Alan M Hunt
Carl Brenders
Martin Dowse
David Shepherd

Context

Many wildlife artists' main motivations are to conserve the world's wildlife for future generations. Alan M Hunt states it as his mission to impart some of the love, experience and concern for these animals and to protect the environment and the wildlife we share this planet with, through his Art.

'As a wildlife artist and conservationist, I have grave concerns for the environment and believe it needs as much support as I can possibly give, whether financially or as a spokesman. Rather than become a famous painter, I would like to be remembered as someone who tried to make people aware of the need to protect the environment, wildlife and the planet.'

Artist tips to help you paint animal fur

'Start by painting the eye, when the eye looks correct, the animal starts to come alive'.

'It is important to understand the way fur, hair and feathers grow to believably paint them.'

'See which direction the fur is growing, make sure your brushstrokes follow this direction.'

'Painting fur is a lot like layering tiles on a roof, you start layering them from the bottom up.'

'Remember to work from dark to light with fur, the lightest colour is last.'

Section 3: Other subject specific things

<http://justforthis.com/video/lastselfie.mp4>



WWF

The World Wide Fund for Nature is an international governmental organisation founded in 1961 that works in the field of wilderness preservation and the reduction of human impact on the environment.

#LastSelfie

Launched in April 9th 2014

The idea behind the campaign is simple - the animals are conveying a message to their viewers which says 'Don't let this be my last selfie.'

The timed message functionality on Snapchat was used to highlight that time is running out for the endangered species. After one week 400,000 tweets hit 1120 million twitter timelines meaning 50% of all active twitter users were exposed to it.

With headlines in more than 6 languages #LastSelfie raised global awareness and in just three days WWF reached their donation target for the entire month.

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Architecture	Buildings and the built environment.
Cross-hatching	Repeated crossing strokes of drawing that represent tone.
Muted	Low-level or desaturated.
Atmospheric	Creating a strong feeling or emotion.
Dilute	To decrease concentration , e.g. of watercolour paint by adding water.

Tier 2 vocabulary	Definition
Watercolour	Paint consisting of pigment in a water-soluble binder.
Transparent	Able to be seen through – not opaque.
Palette	A surface on which paint can be contained and mixed.
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.
Opaque	Unable to be seen through – not transparent.
Texture	The way a surface feels or would appear to feel.
Illustrator	One who produces illustration
Illustration	Artwork for printed media, etc.

Artist: Ian Murphy



Ian Murphy (b. 1963) is a British artist. His works often feature architecture or architectural details. Some feature strong cross-hatched line work and layers of texture., with tone built up with thin layers of paint. Colour in Murphy's work is often dark or muted. Together, this creates highly detailed, atmospheric artwork.

In the video linked below, Ian Murphy talks about his process as he works.

bit.ly/bsadim



WATERCOLOUR

A huge range of colours can be achieved with watercolour paint, but at first glance the palette can seem very dark. The image below names the colours on the palette.



Most of these paints produce rich, transparent colour. Lighter colours are produced by diluting the paint further. The white paint is more opaque and can be used to add highlights on top of dried paints.

bit.ly/bsadwatani

View the short video linked below about some common mistakes to avoid when using watercolour.

bit.ly/bsadwatcol

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Role	An actor's portrayal of someone in a play.
Role play	A theatrical exercise that includes a mix of improvisation, designed to allow an actor to step into the shoes of the character.
Improvisation	Improvisation can tell us created information about the character outside of the world of the play.
Back Story	Backstory is a set of events that have occurred before the main story. These events can either be alluded to, described by one or more characters, or shown in flashback.
Original Staging Conditions	The manner in which the first performance of a play was designed and staged.

Section 1: Key Vocabulary	
Tier 2 vocabulary	Definition
Character	A person portrayed in a drama, a novel, film, TV or other artistic piece.
Character Traits	These are parts of a person's behaviour and attitude.
Character development	The process of building a unique, three-dimensional character with depth, personality, and clear motivations.

Section 2: Exploring:Characters

The character traits and the moral choices they make are more important than a name.

Jan and **Mark** appear together at the beginning of each section. They act as narrators or as a 'Greek chorus' and throw the audience directly into the action at the beginning of each section. They are also used to fill in any blanks for us and make us aware of any new developments in the story.

Leah and **Phil** are another pair of characters who always appear together. Leah is the talkative one and Phil is the character that doesn't say anything in scenes where they are together, but just eats. Leah obviously adores Phil, but he just ignores her.

Lou, is a follower – she swears a lot and again panics over Adam's death. Although she is on stage a lot, she is often quiet.

John Tate only appears in one scene – Scene 3 Section 1. When we first see him, he appears to be the leader of the group. This doesn't last long, and his leadership is challenged.

Danny is intelligent but is a follower. He is disturbed by Adam's death and is terrified that it will affect his future – he wants to be a dentist.

Richard seems to be a responsible character and when we first meet him, he appears to have the potential to be a leader.

Cathy finds the whole situation exciting and 'better than ordinary life' (p. 16).

Brian is the weakest link in the group. The other characters must see him as such.

Adam.... a boy. He does not appear physically until Section 3. When he appears, it is a massive shock to the others that he is still alive.

Section 3

Structure of the play:

The structure of the play The play has been constructed with a cyclical narrative. The structure repeats itself and when we read the play, we come to realise that there is a pattern to the sequence of the different scenes – and to the three different locations. For example, the first scene is always Mark and Jan in A Street, who introduce the problem of that particular section. Then it's Leah and Phil, before moving on to a greater scene with everyone where the problem is solved. This sequence is repeated throughout the play and below is an overview in order to see the exact structure of the play.

The Messages of the play:

"The main themes of the play are bullying, gang membership, social responsibility, morality and leadership. The characters remain in role in the interview-style sequences, commenting on the events of the play and explaining their views on the events and their role in what has taken place." *Dennis Kelly*

Themes

Many themes in DNA challenge the audience to reflect upon our role in society and whether our life should simply be about self-preservation or whether we should always consider society in general when we act.

"I am hoping that our production will help students see the wider social conversation that we are having about what happens to society if you only act in terms of self interest,... what we see in this play is a group of young people who act in the interest of self-preservation, but ultimately what happens is you see the effect that has on everyone else." *Tom Walsh, Birmingham Theatre.*



A self-replicating material that is present in nearly all living organisms as the main constituent of chromosomes. It is the carrier of genetic information.

Section 1: Key Vocabulary

Tier 3 vocabulary Definition

Verse	The section of the songs that tells the story. In each verse the melody will remain the same, whilst the words change
Chorus	The repeated part of a song that delivers the main message
Harmony	The chords used within the song
Texture	The layers of music and how they interact
Timbre/Sonority	To tone quality produced by the instrument or vocalist
Riff/ Hook	A short repeated pattern. A riff is instrumental and a hook is vocal

Tier 2 vocabulary Definition

Structure	The order in which things happen within a song.
Arrangement	A new version of existing material. A cover version
Melody	The main tune
Ensemble	A group of musicians performing together
Solo	A single musician performing on their own

Section 2:

What is an arrangement?

An arrangement is a new and different version of an existing song created by a musician. We can also call these arrangements **cover versions**.

Arrangements are very common in popular music and original material may be changed (or rearranged) by changing the **tempo**, **instrumentation**, **timbre/sonority**, **tonality**, **melody**, **harmony** or **rhythm**.



Scan me to listen to different cover versions

Instruments within pop and rock music

Pop and rock bands often feature the following instruments:


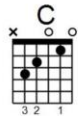
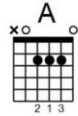
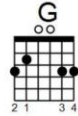

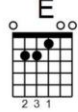
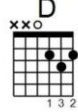
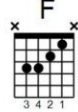

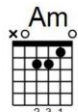







- **Drumkit** – this provides the rhythm and beat to the song
- **Electric Guitar** – the **lead guitar** plays the melody and the **rhythm guitar** plays the chords/harmony
- **Bass Guitar**: plays the bass line. This will be based on the chords/harmony used in the song
- **Acoustic** instruments such as: **piano** and **acoustic guitar**. They will play the harmony/chords
- **Vocals** - The **lead singer** will sing the main melody and the **backing vocals** will provide harmony




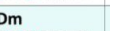










Section 3:

Notation Guides: Treble and Bass Clef



Chord Diagrams

C				
G				
F				
Am				
Dm				
A				
D				
Em				

	Major	Minor
C		
D		
E		
F		
G		
A		
B		

Links to prior learning: What Makes a Good Song

Section 1: Key Vocabulary	
Tier 3 vocabulary	Definition
Colostrum	The very first "Milk" produced when a baby is born. It is rich in nutrients and antibodies to protect the baby who is born with no immune system
Folic Acid	Folic Acid is the synthetic version of the Vitamin B9 (Folate). Recommended during pregnancy to prevent neural tube defects.
Anaemia	Deficiency disease caused by a lack of iron in the diet.
Body Mass Index	A method of calculating whether ADULTS are at the recommended weight for their height.
Osteoporosis	Sometimes known as "brittle bone" disease. More likely (but not only) to occur in older women. Occure
Anaphylaxis	Severe potentially life threatening allergic reaction

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

Section 2: New Knowledge/Skills

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

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

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

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



Marine Stewardship Council

Using **sustainable methods** of fishing to prevent the decline in number of **fish** in our seas.

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



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

Section 3: Other subject specific things

Factors affecting food choice

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

Heat Transfer

Conduction - heat transfer through physical contact e.g. the base of a pan on a hob

Convection - convection currents tend to occur in liquids (e.g. boiling water) and gases. Hotter particles rise and cooler particles drop.

Radiation - thermal radiation is emitted from a heat source e.g. the grill, and travels to the food via particles in the air (photons)

Homework

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

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Prototype	A quick version of your design to test the initial idea.
Aesthetics	What a product looks like, Colour, shape, style etc
Components	Anything in the textile product that is not made of fabric. Eg. Zip, button, press stud
Embellishment	The application of stitching, trimmings, threads, braid, ribbons and beads to decorate a fabric or textile.
Pattern	Paper templates that show the shape of the fabric pieces that must be cut out to make a product
Context	The setting for an event, statement, or idea.
Couching	The process used to secure threads, fibres or yarns to a surface using hand stitching or embroidery.

Tier 2 vocabulary

Tier 2 vocabulary	Definition
Form	The shape, aesthetics. What something looks like.
Function	How well does the product perform the job it was designed to do?
Specification	A list of targets the design must meet
Evaluation	Making a judgment about a product or design

Section 2: Skills

Developing your own textile product

Designers work through a process each time they develop a new product. You will need to explore each of these stages in your sketchbook to help you arrive at the finished piece.

Context: The starting point for your project. This could be a text, an image or a problem that you are given to solve. You would explore the context by creating a mindmap. This would include all of your initial thoughts, ideas and questions related to the context.

Research: From your mindmap you will be able to highlight certain themes that need further investigation. This could be to do with finding out more about the materials you could use, how to make it or questionnaires to find out what people are looking for from a new product.

Brief: By this stage you should have a fairly clear idea of exactly what you want to make. A brief is a couple of sentences to clarify this. Most start with 'A am going to design and make a.....'

Specification: This is a list of targets that you would like your design to meet. There is an acronym to help you remember the themes that should be included: ACCESSFM

Design Ideas: Time to start designing and sketching. At this point we combine all the information we found during the research section, the targets we have written in the Specification along with creativity.

Prototype (modelling and testing): Initial designs need to be tested before the final version is made. This helps particularly with products that are meant to fit on the body (as a textile accessory would). It allows designers to start to work in 3D. These models are often made from paper and card to quickly find any problems.

Manufacture: Once all the problems have been ironed out at the prototype stage it's time to make the finished piece. This should be created with accuracy.

Testing & Evaluation: It is always useful to reflect on how successful your finished piece is. You can learn what went well and how you might like to improve it if you were to make it again.

Section 3: Knowledge

Looking for inspiration

Textile designers look in many places for inspiration. You will look at one of the following themes:



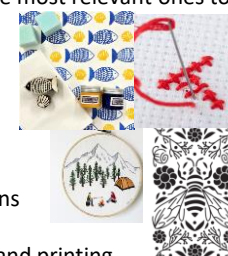
- Superheroes
- Literary Adventures
- Couture Fashion
- Sporting Advantage

When you have chosen your CONTEXT you will use it to develop your own project. You will have the responsibility to select WHAT you are going to make, WHY you have chosen to make it, HOW you will make it and WHAT you will make it from.

Surface Decoration

You have worked with many different types of surface decoration in your previous textile projects. In this project you will need to pick the most relevant ones to your design:

- Stencil
- Applique
- Block printing
- Embroidery
- Cross stitch
- Buttons/beads/sequins
- Fabric crayons
- Digital Fabric design and printing








You have also learned how to create patterns/templates and sew a zip in amongst other things! Can you explain how each of these processes work? Can you decide which are the most appropriate to use in your design?

Section 1: - Key Vocabulary	
Tier 3 Vocabulary	
Biscuit Joint	Small oval shaped piece of wood used to join two sections of larger wood together
Light Dependant Resistor	LDR – A resistor which changes it's ability to resist the flow of electricity based on the light level
Pillar Drill	A machine drill used to accurately drill holes in wood, metal and plastic
Printed Circuit Board	PCB – Plastic board which is printed with copper track and soldering pads, used to link electronic components together
Tier 2 Vocabulary	
Cost	Details about the cost of materials, manufacture, and retail price of a product
Aesthetic	What the theme, colour scheme and look of a product
Function	What a product is intended to do and how
Ergonomics	Detailed about how easy it is to interact with a product, including how it feels
Quality	How well a product is made, and how it effects the durability and material choice
User	How is the intended target market of the product.
Environment	How does your product effect the environment, from raw materials to end of life

Section 2: Skills	
Soldering	Being able to solder 'on and off board' components based on a schematic diagram independently Soldered joints should be neat, use the correct amount of solder, they should be shiny to avoid 'dry joints', with errors being independently identified and repaired.
Biscuit Joint	Mark out joints, then uses a biscuit jointer under close supervision to joint join 2 panels of wood
Pillar Drill	Set up, including the changing the drill bit, to cut small and large diameter holes in wood to a fixed depth and through cut
2D design software	Use CAD software create a themed design, considering suitable and secure location of the PCB, power, and the inputs & outputs
Application of laser cutting	Understand the set up requirement needed to laser cut and engrave materials, including the use of colour to define cut type, and power/speed setting requirements for different materials
Product Assembly	Create a high quality, fully functioning, electronic product from a collection of parts. Including the use of glues and fixing techniques
Health and Safety	Consistently use a wide range of tools and equipment safety, always using the correct PPE

Section 4:- WAGOLL	
	

Section 3:- New Knowledge	
Product Analysis and Evaluation <ul style="list-style-type: none"> Complete an in depth evaluation of your own completed practical work, and a similar commercial product using the common evaluation techniques, including CAFEQUE and LCA 	
Design Theme Research <ul style="list-style-type: none"> Develop your knowledge of a well known designer or design house, being able to explain their style and ethos. Apply this design style to a product <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  PlaySam </div> <div style="text-align: center;">  Alessi </div> <div style="text-align: center;">  Memphis </div> <div style="text-align: center;">  De Stijl </div> </div>	
Life Cycle Assessment <p>Understand the concept of LCA and how it applies to every stage of a products life. Apply the concept to your product during the evaluation.</p> 	
Risk Assessment <ul style="list-style-type: none"> Understand the meaning off, and difference between a hazard and a risk. Identify people at risk and control measures which can be put into place to make an activity safer Complete a formal risk assessment for skills/tools/machines which are used to make the clock project 	
Processes <p>Be able to explain the competent safe use of the following machines using annotation and sketches.</p> <ul style="list-style-type: none"> Pillar Drill Biscuit Jointer Strip Heater/Line Bender 	

Key Vocabulary	
Tier 3 vocabulary	Definition
Democracy	a government which is elected by the people. Everyone who is eligible to vote has a chance to have a say in who runs the country.
Anarchy	a condition of lawlessness brought about by the absence of a government.
Communism	a government which owns things like businesses and farms. It provides its people's healthcare, education and welfare.
Monarchy	a country is governed by a king or queen.
Dictatorship	a country is ruled a single leader. The leader has not been elected and may use force to keep control.
Citizen	A legally recognized subject or national of a state or commonwealth, either <u>native</u> or <u>naturalized</u> . E.g 'A British citizen'.
Tier 2 vocabulary	Definition
Value	1. Something's worth or usefulness. 2. Standards of behaviour; a judgement of what is important in life
Tolerate	allow the existence, occurrence, or practice of (something that one dislikes or disagrees with) without interference.
Respect	due regard for the feelings, wishes, or rights of others.

How to be a Good Citizen

The five British Values we learn about in school are:



Democracy
Our opinions matter in school.

Respect
We look after each other and our school.

Tolerance
We accept each other's differences.

Rule of law
We keep to rules.

Liberty
We are free to make choices.

British Values

Show compassion,
Be honest and fair,
Display self-discipline in setting and meeting goals,
Make good judgments,
Show respect to others,
Show courage in standing up for beliefs,
Have a strong sense of responsibility,
Show concern for your community,
Maintain self-respect.

Why is Democracy Important?

Why Vote?

It is important to vote and participate in politics because your representatives are making choices and decisions on your behalf.

Members of Parliament (MPs) and local council members are responsible for making decisions in terms of distributing resources and funds.

By voting and participating, citizens are able to express their views to the decision makers about a wide variety of issues on a local and national level such as:

- when litter is collected
- how electricity is generated
- what should be learned in schools

2 Black/Blue Pens
and 1 Coloured Pen



2 Pencils



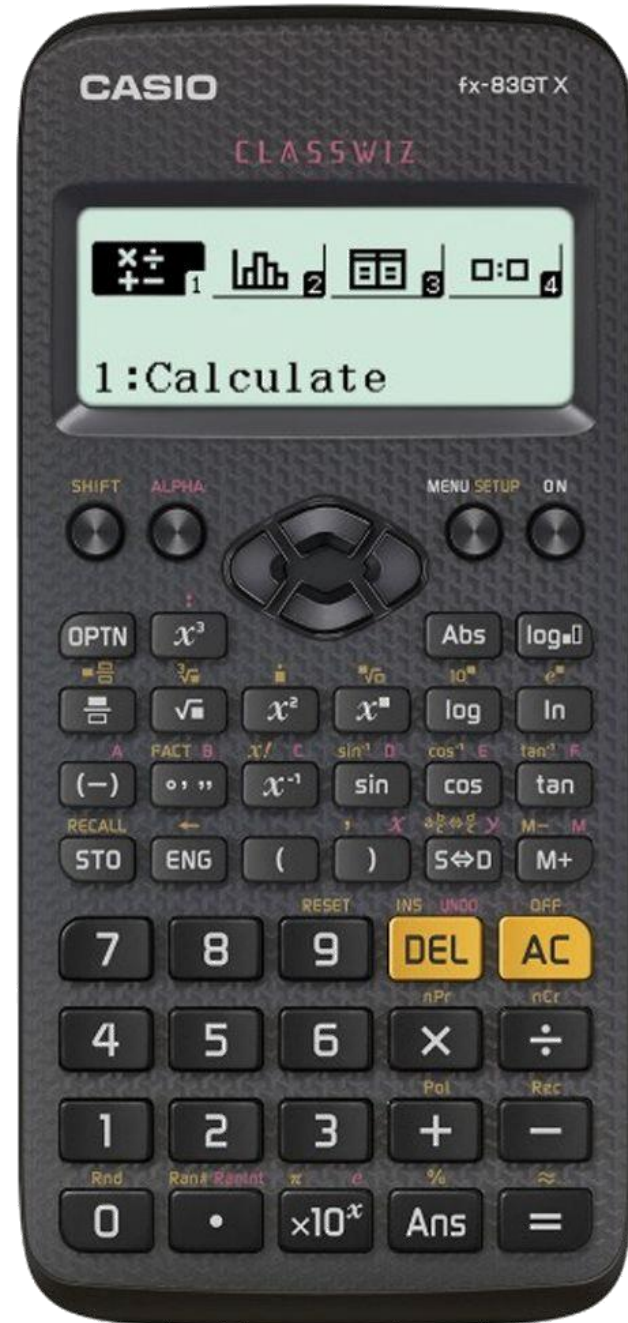
Eraser



Pencil Sharpener



Scientific Calculator



Planner



Ruler

