Knowledge Organiser

Year 9 Autumn 1 2026

"Try to learn everything about something and something about everything"

Thomas Huxley

Thomas Henry **Huxley** (4 May 1825 – 29 June 1895) was an English biologist and anthropologist who specialized in comparative anatomy.

YEAR 9 KNOWLEDGE ORGANISER: OF MICE AND MEN

CHARACTERS

George: A migrant worker who protects and cares for Lennie. George dreams of some day owning his own land, but he realizes the difficulty of making this dream come true.	**Lennie**: A migrant worker who has learning difficulties, is large, and very strong. He relies on George's guidance.
Candy: an old handyman who lost his hand in a ranch accident and is kept on the payroll. A kind man who welcomes George and Lennie.	**Curley**: The son of the ranch owner, Curley is a mean little guy who picks fights. He is recently married and extremely jealous of any man who looks at or talks with his wife.
Curley's Wife: recently married, she is unhappy and lonely. She taunts the ranch workers into talking to her, which gets them into trouble.	**Crooks**: The black stable worker who cares for the horses. A symbol of racial injustice, Crooks is isolated from the other hands because of his skin color.
Slim: The leader of the mule team whom everyone respects. Slim becomes an ally to George and helps protect Lennie when he gets in trouble.	**Carlson**: An insensitive ranch worker who owns a luger, a type of gun.

THEMES AND CONTEXT

The Great Depression:

On October 29 1929, millions of dollars were wiped out in the Wall Street Crash. It led to the People losing their life savings and a third of America's population became unemployed. Steinbeck encourages us to empathise with the plight of migrant workers during the Great Depression.

The American Dream:

The idea that equality of opportunity is available to any American, allowing the highest goals to be achieved. The American Dream is shown to be impossible: reality defeats idealism.

Prejudice in America:

In 1930's America, black people were considered as second-class citizens- they were paid less than their white counterparts and they had to work harder than everyone else. The Jim Crow Laws were enforced between 1876 and 1965 that provided a legal basis for segregating and discriminating against African-Americans.

VOCABULARY:

Migrant – someone who moves from one place to another	**Prejudice** - A preconceived opinion about someone or something that is not based on reason or actual experience.	**Microcosm** – a place, character, or event in a story that symbolises something in reality.
Derogatory language – words used to insult, belittle, or show a lack of respect	**Segregation** - The separation or isolation of a race, class, or ethnic group from others.	**Oppression** – the cruel or unfair use of power by a dominant group to limit the freedoms of others
Juxtaposition – two (characters) compared sided by side to highlight their differences	**Marginalised** – pushed to the edge of society; treated as insignificant.	**Foreshadowing** – a structural technique that hints at future events in a text
Burden – a heavy responsibility that is difficult to deal with	**(Colour) connotations** – the ideas and feelings symbolically linked to a colour	**Emasculate** – to deprive (typically a man) or their strength or power
Hierarchy - A system in which members of an organisation or society are ranked according to status or authority.	**Parallel** - characters, events etc. that are similar to show structural patterning	**Cyclical structure** – a structural technique where a story ends in a way that references its beginning

MATHS KNOWLEDGE ORGANISER – YEAR 9 HT 1

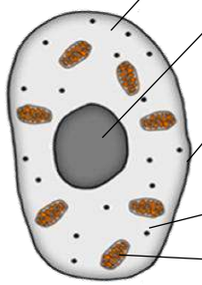
	Topic	Information	Example
1	Standard Form	$\boldsymbol{A \times 10^b}$ $where\ \mathbf{1} \leq \boldsymbol{A} < \mathbf{10}, \quad \boldsymbol{b = integer}$	8400 = 8.4 x 10^3 0.00036 = 3.6 x 10^{-4}
2	Multiplication Index Law	When **multiplying** with the same base (number or letter), **add the powers**. $\boldsymbol{a^m \times a^n = a^{m+n}}$	$7^5 \times 7^3 = 7^8$ $a^{12} \times a = a^{13}$ $4x^5 \times 2x^8 = 8x^{13}$
3	Division Index Law	When **dividing** with the same base (number or letter), **subtract the powers**. $\boldsymbol{a^m \div a^n = a^{m-n}}$	$15^7 \div 15^4 = 15^3$ $x^9 \div x^2 = x^7$ $20a^{11} \div 5a^3 = 4a^8$
	Brackets Index Laws	When raising a power to another power, multiply the powers together. $\boldsymbol{(a^m)^n = a^{mn}}$	$(y^2)^5 = y^{10}$ $(6^3)^4 = 6^{12}$ $(5x^6)^3 = 125x^{18}$
4	Powers	$\boldsymbol{p = p^1}$ $\boldsymbol{p^0 = 1}$	$99999^0 = 1$
5	Geometric Sequence	A sequence of numbers where each term is found by **multiplying the previous one** by a number called the **common ratio, r**.	An example of a geometric sequence is: $2, 10, 50, 250 \ldots$ The common ratio is 5
6	Error Interval	A **range of values** that a number could have taken before being rounded or truncated. An error interval is written using inequalities, with a **lower bound** and an **upper bound**.	0.6 has been rounded to 1 decimal place. The error interval is: $0.55 \leq x < 0.65$ The lower bound is 0.55 The upper bound is 0.65

AQA Cell Structure

Eukaryotes complex organisms

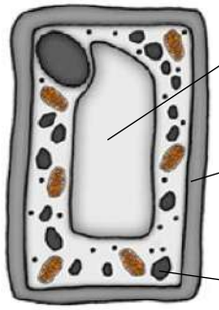
animal cell

plant cell



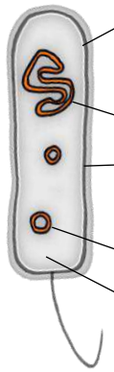
cytoplasm	*site of chemical reactions in the cell*	gel like substance containing enzymes to catalyse the reactions
nucleus	*contains **genetic material***	controls the activities of the cell and codes fro proteins
cell membrane	*semi permeable*	controls the movement of substances in and out of the cell
ribosome	*site of protein synthesis*	mRNA is translated to an amino acid chain
mitochondrion	*site of respiration*	where energy is released for the cell to function

contains all the parts of animal cells plus extras



permanent vacuole	*contains cell sap*	keeps cell turgid, contains sugars and salts in solution
cell wall	*made of cellulose*	supports and strengthens the cell
chloroplast	*site of photosynthesis*	contains chlorophyll, absorbs light energy

Prokaryotes simpler organisms

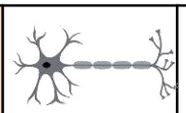


cell membrane	*site of chemical reactions in the cell*	gel like substance containing enzymes to catalyse the reactions
bacterial DNA	*not in nucleus floats in the cytoplasm*	controls the function of the cell
cell wall	***NOT** made of cellulose*	supports and strengthens the cell
plasmid	*small rings of DNA*	contain additional genes
cytoplasm	*semi permeable*	controls the movement of substances in and out of the cell

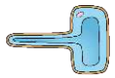
Bacterial cells are much smaller than plant and animal cells

Specialised cells

specialised animal cells

nerve		*carry electrical signals*	long branched connections and insulating sheath
sperm		*fertilise an egg*	streamlined with a long tail acrosome containing enzymes large number of mitochondria
muscle		*contract to allow movement*	contains a large number of mitochondria long

specialised plant cells

root hair		*absorb water and minerals from soil*	hair like projections to increase the surface area
xylem		*carry water and minerals*	TRANSPIRATION - dead cells cell walls toughened by lignin flows in one direction
phloem		*carry glucose*	TRANSLOCATION - living cells cells have end plates with holes flows in both directions

Cell differentiation

how a cell changes and becomes **specialised**
Undifferentiated call are called **STEM** cells

animal cell differentiation

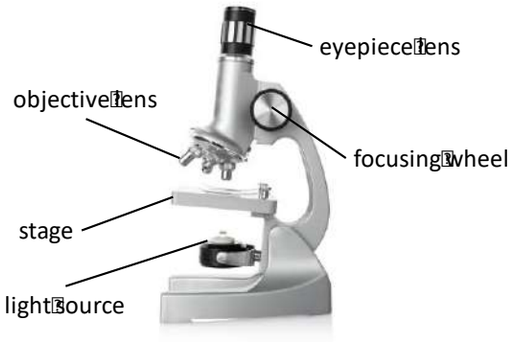
early stages of development
only for repair and replacement

plant cell differentiation

all stages of life cycle the stem cells are grouped together in meristems

Microscopy

magnification M = size of image / real size of the object A



Feature	Light (optical) microscope	Electron microscope
Radiation used	Light rays	Electron beams
Max magnification	~ 1500 times	~ 2 000 000 times
Resolution	200nm	0.2nm
Size of microscope	Small and portable	Very large and not portable
Cost	~£100 for a school one	Several £100,000 to £1 million plus

PREFIXES

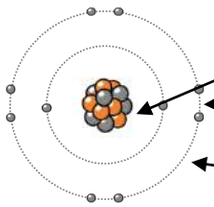
Prefix	Multiple	Standard form
centi (cm)	1 cm = 0.01 m	$x\ 10^{-2}$
milli (mm)	1 mm = 0.001 m	$x\ 10^{-3}$
micro (µm)	1 µm = 0.000 001 m	$x\ 10^{-6}$
nano (nm)	1nm = 0.000 000 001 m	$x\ 10^{-9}$

AQA GCSE Atomic structure and periodic table part 1

PiXL Partners in excellence

Atoms, elements and compounds

Atom	*The smallest part of an element that can exist*	Have a radius of around 0.1 nanometres and have no charge (0).
Element	*Contains only one type of atom*	Around 100 different elements each one is represented by a symbol e.g. O, Na, Br.
Compound	*Two or more elements chemically combined*	Compounds can only be separated into elements by chemical reactions.



Central nucleus	Contains protons and neutrons
Electron shells	Contains electrons

Name of Particle	Relative Charge	Relative Mass
Proton	+1	1
Neutron	0	1
Electron	-1	Very small

Electronic structures

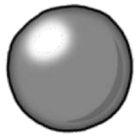
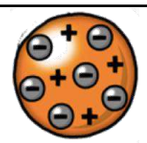
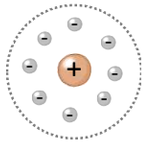
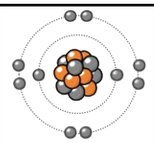
Electronic shell	Max number of electrons
1	2
2	8
3	8
4	2

Relative electrical charges of subatomic particles

7
Li
3

Mass number	*The sum of the protons and neutrons in the nucleus*	
Atomic number	*The number of protons in the atom*	Number of electrons = number of protons

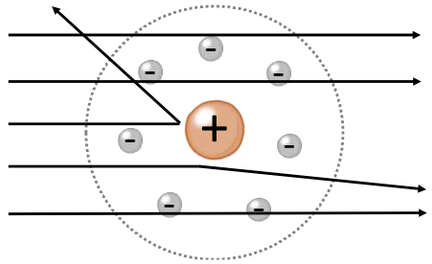
The development of the model of the atom

Pre 1900		*Tiny solid spheres that could not be divided*	Before the discovery of the electron, John Dalton said the solid sphere made up the different elements.
1897 'plum pudding'		*A ball of positive charge with negative electrons embedded in it*	JJ Thompson 's experiments showed that showed that an atom must contain small negative charges (discovery of electrons).
1909 nuclear model		*Positively charge nucleus at the centre surrounded negative electrons*	Ernest Rutherford's alpha particle scattering experiment showed that the mass was concentrated at the centre of the atom.
1913 Bohr model		*Electrons orbit the nucleus at specific distances*	Niels Bohr proposed that electrons orbited in fixed shells; this was supported by experimental observations.

James Chadwick	*Provided the evidence to show the existence of neutrons within the nucleus*

Rutherford's scattering experiment

A beam of alpha particles are directed at a very thin gold foil



Most of the alpha particles passed right through.
A few (+) alpha particles were deflected by the positive nucleus.
A tiny number of particles reflected back from the nucleus.

Mixtures

Mixtures	*Two or more elements or compounds not chemically combined together*	Can be separated by physical processes.

Method	Description	Example
Filtration	*Separating an insoluble solid from a liquid*	To get sand from a mixture of sand, salt and water.
Crystallisation	*To separate a solid from a solution*	To obtain pure crystals of sodium chloride from salt water.
Simple distillation	*To separate a solvent from a solution*	To get pure water from salt water.
Fractional distillation	*Separating a mixture of liquids each with different boiling points*	To separate the different compounds in crude oil.
Chromatography	*Separating substances that move at different rates through a medium*	To separate out the dyes in food colouring.

Chemical equations

Chemical equations	*Show chemical reactions - need reactant(s) and product(s) energy always involves and energy change*	Law of conservation of mass states the total mass of products = the total mass of reactants.
Word equations	*Uses words to show reaction* **reactants → products** magnesium + oxygen → magnesium oxide	Does not show what is happening to the atoms or the number of atoms.
Symbol equations	*Uses symbols to show reaction* **reactants → products** $2Mg + O_2 \rightarrow 2MgO$	Shows the number of atoms and molecules in the reaction, these need to be balanced.

Relative atomic mass

Isotopes	*Atoms of the same element with the same number of protons and different numbers of neutrons*	^{35}Cl (75%) and ^{37}Cl (25%) Relative abundance = (% isotope 1 x mass isotope 1) + (% isotope 2 x mass isotope 2) ÷ 100 **e.g. (25 x 37) + (75x 35) ÷ 100 = 35.5**

AQA GCSE Atomic structure and periodic table part 2

Alkali metals

Halogens

Noble gases

Transition metals

1	2											3	4	5	6	7	0
H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	?	?	?						

Metals to the left of this line, non metals to the right

The Periodic table

Elements arranged in order of atomic number	*Elements with similar properties are in columns called groups*	Elements in the same group have the same number of outer shell electrons and elements in the same period (row) have the same number of electron shells.

Development of the Periodic table

Before discovery of protons, neutrons and electrons	*Elements arranged in order of atomic weight*	Early periodic tables were incomplete, some elements were placed in inappropriate groups if the strict order atomic weights was followed.
Mendeleev	*Left gaps for elements that hadn't been discovered yet*	Elements with properties predicted by Mendeleev were discovered and filled in the gaps. Knowledge of isotopes explained why order based on atomic weights was not always correct.

Metals and non metals

Metals	*To the left of the Periodic table*	Form positive ions. Conductors, high melting and boiling points, ductile, malleable.
Non metals	*To the right of the Periodic table*	Form negative ions. Insulators, low melting and boiling points.

Group 1

Alkali metals	*Very reactive with oxygen, water and chlorine*	Only have one electron in their outer shell. Form +1 ions.
	Reactivity increases down the group	Negative outer electron is further away from the positive nucleus so is more easily lost.

With oxygen	Forms a metal oxide	Metal + oxygen → metal oxide	e.g. $4Na + O_2 \rightarrow 2Na_2O$
With water	Forms a metal hydroxide and hydrogen	Metal + water → metal hydroxide + hydrogen	e.g. $2Na + 2H_2O \rightarrow 2NaOH + H_2$
With chlorine	Forms a metal chloride	Metal + chlorine → metal chloride	e.g. $2Na + Cl_2 \rightarrow 2NaCl$

Compared to group 1	• *Less reactive* • *Harder* • *Denser* • *Higher melting points*	• *Cu^{2+} is blue* • *Ni^{2+} is pale green, used in the manufacture of margarine* • *Fe^{2+} is green, used in the Haber process* • *Fe^{3+} is reddish-brown* • *Mn^{2+} is pale pink*
Typical properties	• *Many have different ion possibilities with different charges* • *Used as catalysts* • *Form coloured compounds*	

Group 7

Halogens	*Consist of molecules made of a pair of atoms*	Have seven electrons in their outer shell. Form -1 ions.	
	Melting and boiling points increase down the group (gas → liquid → solid)	Increasing atomic mass number.	
	Reactivity decreases down the group	Increasing proton number means an electron is more easily gained	
With metals	Forms a metal halide	Metal + halogen → metal halide e.g. Sodium + chlorine → sodium chloride	e.g. NaCl metal atom loses outer shell electrons and halogen gains an outer shell electron
With hydrogen	Forms a hydrogen halide	Hydrogen + halogen → hydrogen halide e.g. Hydrogen + bromine → hydrogen bromide	e.g. $Cl_2 + H_2 \rightarrow 2HCl$
With aqueous solution of a halide salt	A more reactive halogen will displace the less reactive halogen from the salt	Chlorine + potassium bromide → potassium chloride + bromine	e.g. $Cl_2 + 2KBr \rightarrow 2KCl + Br_2$

Group 0

Noble gases	*Unreactive, do not form molecules*	This is due to having full outer shells of electrons.
	Boiling points increase down the group	Increasing atomic number.

Transition metals (Chemistry only)

Geography Year 9 – Topic 1 – Asia, China and India Knowledge Organiser

Homework 1
Your task: Write 1 to 6 in the margin and identify which state matches up to which number on the map.

- North Asia
- Central Asia
- Middle East
- South Asia
- East Asia
- Southeast Asia

State **one** country that is in each state (you may need to use the internet for this task).

Homework 2
Your task: Draw a table to identify which of the following is a human or physical environment of Asia.

Human environment	Physical environment

- Mountains
- Lake
- Reservoirs
- Farming
- Cities like Tokyo
- Taj Mahal
- Great Wall of China
- Mt Everest
- Glaciers
- Forests
- Rivers
- Canals
- Oceans
- Public transport
- Wind farms
- Factories
- Ice sheets
- Biomes

Homework 3: You have learnt about the following biomes:

- **Tundra**
- **Taiga**
- **Steppes**
- **Temperate forest**
- **Cold desert**
- **Hot desert**
- **Mountain**
- **Warm moist forest**

Task 1: Write a definition for the term biome

Task 2: Research on the internet 5 interesting facts about each biome.

Make sure they are relevant to Asia because these biomes can be found around the world.

Homework 4
Your task: Watch the video below and answer the questions:
[Why Do People Migrate?! (Push & Pull Factors: AP Human Geo)]

1. Why do people migrate?
2. What is meant by push factors? Give examples.
3. What is meant by pull factors? Give examples.

Homework 5
Create a fact file for India and China. This can be done online or in your homework book. Things to include:

- Flag of the country
- Map of the country (capital, bordering countries)
- Population size and area
- Different religions / languages / race
- Government and politics
- Economic (currency, industries and resources)
- Culture (food, clothing, music/dance)
- History
- Interesting facts

Homework 6 Tourism in Southeast Asia.
Answer the following questions:

- What are the main tourist attractions in SE Asia?
- Why do so many people visit SE Asia?
- What time of year is the best time to visit SE Asia?
- What are the common languages?
- Would you like to travel to SE Asia? Why?

History Knowledge Organiser Year 9 Half Term 1
Was the First World War a triumph of human resilience or a failure of humanity?

Key Terms	
Militarism	Building up of armed forces and navy
Alliance	A group of countries who agree to support each other when needed
Imperialism	The desire to take over and conquer other countries
Nationalism	The belief that your country is better than anyone else's
Trench Warfare	A type of combat where opposing troops fight each other from trenches
Propaganda	Information used to promote a political viewpoint
Conscription	Compulsory enlistment to the armed forces (people had to join up)
Conscientious objectors	a person who for reasons of conscience refuses to serve in the armed forces.
Stalemate	A situation where either side are not able to make any progress or win
Suffrage	The right to vote
Shellshock	Psychological trauma caused by war.

Women

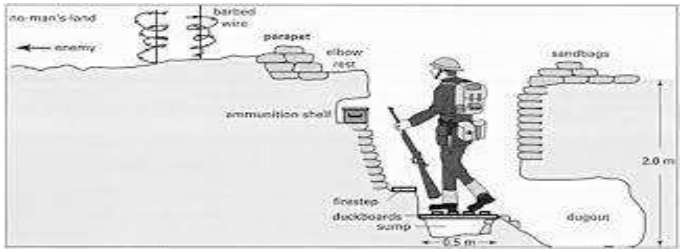
- Before 1914 women could not vote in parliamentary elections.
- Suffragists and suffragettes campaigned for the vote.
- During WW1 women worked in munitions, transport, farming and nursing.
- In 1918 some women over 30 gained the vote.

The MAIN causes of World War One

M	Militarism	Countries built larger armies and navies. This created an arms race.
A	Alliances	Countries promised to support each other in war. This helped spread conflict across Europe.
I	Imperialism	Countries competed for colonies and resources.
N	Nationalism	Pride in country and demands for independence increased tensions.

Trench Warfare:

- Soldiers spent most of their time in the trenches they dug to protect themselves- see diagram.
- Trenches were infested with rats which fed on rotting food and corpses and lice (which led to many suffering from trench fever)
- Weapons included machine guns, rifles, artillery and poison gas.
- As well as serious injuries from weapons many men also suffered with illnesses such as trench foot, trench fever and shell shock as a result of the conditions.
- Shellshock was not very well understood at the time.
- Harry Farr was executed for cowardice in 1916 after refusing to return to the front line; many historians now believe he was suffering from shell shock.



Joining up, empire soldiers and conscientious objectors:

- Propaganda encouraged men to enlist.
- Pals Battalions encouraged friends to join together.
- Conscription was introduced in 1916.
- Around 2.5 million Empire soldiers fought for Britain. They fought for many reasons including: loyalty, adventure, honour, economic opportunity and hopes of greater equality.
- Many Empire soldiers experienced discrimination and were not always remembered equally after the war.
- Some conscientious objectors refused to fight because of religious, moral or political beliefs.

Home Front:

- Germany used Zeppelin raids against Britain.
- Food shortages led to rationing.
- Women took on many jobs previously done by men.
- DORA gave the government greater control during wartime.

Medicine:

- Blood transfusions saved lives.
- X-rays helped doctors locate injuries.
- New methods reduced infection.
- Plastic surgery helped rebuild severe facial injuries.

Was the First World War a Triumph of Human Resilience or a Failure of Humanity?

Examples of resilience:

- Soldiers enduring trench warfare.
- Women taking on new roles.
- Medical innovations saving lives.

Examples of failure of humanity:

- Millions killed or wounded.
- Shell shock misunderstood.
- Discrimination faced by some Empire soldiers.

French Knowledge Organiser – Year 9 - Half Term 1

Homework 1

Speaking French in class helps us to practice and feel more confident in the language. Here are some useful phrases:

J'ai besoin d'un stylo	I need a pen
Peux-je aller aux toilettes ?	Can I go to the toilet?
Oui	Yes
Non	No
S'il vous plaît	Please
Merci	Thank you
De rien	You're welcome
Répétez	Repeat
Je ne comprends pas	I don't understand
Je ne sais pas	I don't know

Homework 2

Describing ourselves often involves the verbs 'avoir' (to have) and 'être' (to be). Both of these verbs are very common but irregular. It is important you learn how to form them in the present tense.

Avoir = to have		**Être = to be**	
J'ai	I have	**Je suis**	I am
Tu as	You have	**Tu es**	You are
Il/Elle a **On a**	He / She has We have	**Il/Elle est** **On est**	He / She is We are
Nous avons	We have	**Nous sommes**	We are
Vous avez	You have (pl)	**Vous êtes**	You are (pl)
Ils/Elles ont	They have	**Ils/Elles sont**	They are

Remember, when you are talking about your age in French, you must use 'avoir' (have). **J'ai** treize ans = I'm thirteen years old. **J'ai** quatorze ans = I'm fourteen years old.

Homework 3

An adjective describes a noun.

Most adjectives in French go after the noun e.g. J'ai les yeux **bleus** = I have blue eyes.

Adjectives do with Beauty, Age, Good and Bad and Size (**BAGS**) go before the noun e.g. Elle est une **belle** fille = She is a beautiful girl.

In French, adjectives have to **agree** with the noun they are describing. Adjectives can agree in gender and in number.

Masculine singular	Feminine singular	English
arrogant	arrogante	arrogant
beau	belle	beautiful
charmant	charmante	charming
drôle	drôle	funny
égoïste	égoïste	selfish
généreux	généreuse	generous
gentil	gentille	kind
jaloux	jalouse	jealous
joli	jolie	pretty
lunatique	lunatique	moody
pénible	pénible	annoying
timide	timide	shy

For most of the adjectives above, add an –s to the adjective to make it plural.
Exceptions: 'jaloux' remains the same in the plural / 'beau' becomes **'beaux'** in the plural

'Beau/belle' and 'joli/jolie' are to do with beauty and therefore are part of BAGS. This means they go before the noun they are describing e.g. Il a une **belle** soeur. All the other adjectives listed here, go after the noun e.g. Je suis un garçon **drôle.**

Homework 4

Direct Object Pronoun: replaces a noun to avoid repetition.

In English, we often use the following direct object pronouns: him, her, it, them.

Direct objects in French:
- **Le** (replace masculine singular nouns)
- **La** (replace feminine singular nouns)
- **Les** (replace plural nouns)

In English, the direct object pronoun goes after the verb e.g. I prefer **her.**

In French, the direct object pronoun goes **in between the subject and the verb** e.g. Je **la** préfère = I prefer her.

Je **le** trouve	I find him / it
Je **la** trouve	I find her / it
Je **les** trouve	I find them

Note: If the verb starts with a vowel, la and le become **l'.**

Je **l'**aime	I like her / him / it

Homework 5

-er verbs are the biggest group of verbs in French.

To form the present tense of regular –er verbs in French:

1. Take the –er off the infinitive
2. Add the correct ending for the person / object doing the action

Present tense endings for regular –er verbs:	
Je	**-e**
Tu	**-es**
Il/Elle/On	**-e**
Nous	**-ons**
Vous	**-ez**
Ils/Elles	**-ent**

Homework 6

To say how often you do something, you can use frequency phrases.

In English, we can often put a frequency phrase in between the subject and verb e.g. I **often** read.

However, in French, you can't do this. The frequency phrase must go after the verb e.g. Je lis **souvent** = *literal meaning* 'I read often'.

Normalement	Normally
En général	In general
D'habitude	Usually
Tout le temps	All the time
De temps en temps	From time to time
Quelquefois	Sometimes
Souvent	Often
Rarement	Rarely
Tous les jours	Every day
Tous les weekends	Every weekend
Une fois par jour	Once a day
Une fois par semaine	Once a week
Une fois par mois	Once a month
Deux fois par jour	Twice a day
Deux fois par semaine	Twice a week
Deux fois par mois	Twice a month

GERMAN YEAR 9
HT1 into HT2

Homework 1: (recall)

1. A **cognate** = a word which is similar in German and in English
   e.g. **Januar – January**
2. A **noun** = a word used to identify something e.g. **table**
3. Nouns in German always begin with a capital letter !
4. Can you put MY / THE / A in front of it ? It's a noun = needs a capital letter !
5. A **pronoun** = a word that takes the place of a noun e.g. I, he, she
6. A **verb** = a word used to describe an action e.g. to live ➔ German infinitive verbs usually end in 'en', e.g. wohnen
7. An **adjective** = a word which describes a noun e.g. pretty; adjectives in German do not have a capital letter

Homework 2: The Comparative

1. The Comparative = when you compare two things e.g. PE is more interesting than Music.
2. To form the Comparative, you add -er to the end of the adjective e.g. interessant - interessantER = interesting - MORE interesting
3. Sport ist interessanter als Musik. PE is more interesting than Music.
4. The Comparative (and the Superlative) add an umlaut if there was only one syllable in the original adjective.
5. Some adjectives have special Comparative forms: gut➔besser/ groß➔größer/ lang➔länger/ kurz➔kürzer

Homework 3: The Superlative

1. The Superlative = when you want to say something is 'the most …'
2. To form the Superlative, you add -ste to the end of the adjective e.g. langweilig – das langweiligSTE Fach
3. Geschichte ist das langweiligste Fach. History is the most boring subject.
4. If the adjective ends with -t, you add -este to the end of the adjective
   e.g. interessant – das interessantESTE Fach
5. The gender before the Superlative adjective = the gender of the noun being referred to
6. Some adjectives have special Superlative forms: gut➔beste/ groß➔größte/ lang➔längste/ kurz➔kürzeste

Homework 4:

anstrengender als	das anstrengendste Fach
besser als	das **beste** Fach
einfacher als	das einfachste Fach
interessanter als	das interessant**e**ste Fach
langweiliger als	das langweiligste Fach
nützlicher als	das nützlichste Fach
schwieriger als	das schwierigste Fach

Homework 5:

1. ich lerne// habe gelernt// werde lernen
2. wir/ sie lernen// haben gelernt// werden lernen
3. ich finde// habe gefunden// werde finden
4. wir/ sie finden// haben gefunden// werden finden
5. mögen = to like *modal verb*
6. ich mag ... (nicht)
7. dürfen = to be allowed to *modal verb*
8. ich / man darf (nicht) …
9. müssen = to have to *modal verb*
10. ich / man muss ...

Homework 6:

der Computerraum	the computer room
der Musiksaal	the music room
die Aula	the hall
die Bibliothek	the library
die Sporthalle	the sports hall
die Toilette	the toilet
das Klassenzimmer	the classroom
das Labor	the science lab
das Lehrerzimmer	the staff room
das Sekretariat	the office

Homework 7:

Entschuldigung, wo ist …	Excuse me, where is …
Im ersten Stock.	On the first floor.
Im Erdgeschoss.	On the ground floor.
Geh durch den Haupteingang.	Go through the main door.
Geh die Treppen hinauf.	Go up the stairs.
Geh nach rechts.	Go right.
Geh nach links.	Go left.
auf der rechten Seite	on the right-hand side
auf der linken Seite	on the left-hand side
Vielen Dank.	Thank you.
Bitte sehr.	You're welcome.

Knowledge Organiser – Term 1

Spanish

HOMEWORK 1	
Generación digital	**Digital generation**
descargar música	To download music
gastar batería	To waste battery
hacer la compra por Internet	to do the shopping online
jugar a videojuegos	To play video ganes
llamar por videollamada	To make a videocall
sacar fotos	To take photos
subir fotos	To upload photos
ver vídeos	To watch videos
leer un libro	To read a book

HOMEWORK 2	
Normalmente	Normally
Generalmente	Generally
Siempre	Always
Todos los días	Every day
Cada día	Every day
Nunca	Never
A veces	Sometimes
De vez en cuando	From time to time
Los fines de semana	At the weekends

HOMEWORK 3	
En la tele	**On TV**
el concurso	Quiz show
los dibujos animados	Cartoon
el documental	Documentary
la película	Film
el programa de deportes	Sports program
el programa de humor	Comedy program
el programa musical	Music program
la serie	Series
el telediario	News
la telenovela	Soap opera

HOMEWORK 4	
una película…	A film
…cómica	Comedy
…de aventuras	Adventure
…de ciencia ficción	Science fiction
…de dibujos animados	Cartoon / animation
…de miedo	Horror
…de misterio	Mystery
…del oeste	Western
…musical	Musical
…romántica	Romantic

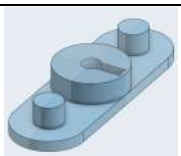
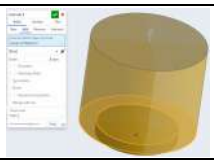
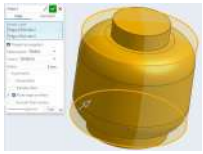
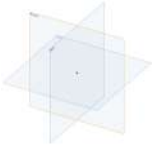
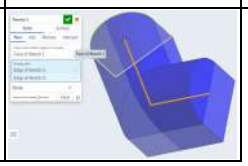
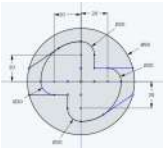
HOMEWORK 5	
entretenido/a	Entertaining
espeluznante	Terrifying
impactante	Striking
mejor	Better / best
memorable	Memorable
nuevo/a	New
peor	Worse / worst
predecible	Predictable
profundo/a	Deep / meaningful
sangriento/a	Gory
triste	Sad
cautivador/a	Captivating
complejo/a	Complex
decepcionante	Disappointing
Me da miedo	It scares me
Me hace reír	It makes me laugh

HOMEWORK 6	
los instrumentos	Instruments
la música	Musica
tocar	To play (an instrument)
la batería	Drums
la flauta	Flute
la gaita	Bagpipes
la guitarra	Guitar
la pandereta	Tambourine
el piano	Piano
la trompeta	Trumpet
el violín	Violin

Engineering & Technology - Knowledge Organiser

Year 9 Iterative Design

Hwk 1 - Learn these 3D CAD Terms

Part An individual component		**Extrude** Creating a 3D shape by stretching out a 2D sketch		**Shell** Hollowing out a 3D shape to a given thickness	
Assembly Parts are mated together to produce a complete product		**Loft** Creating a 3D shape by connecting sketches across multiple planes		**Fillet** Rounding an edge on a 3D shape to a given radius	
Plane A flat 2D surface on which to draw a sketch in 3D space		**Sweep** Creating a 3D shape by projecting a sketch along a path			
Sketch A 2D shape drawn on a plane to help construct a part					

Understand these terms better by completing your **Lego Man** task on **OnShape**

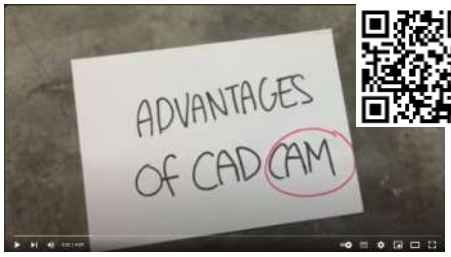
Hwk 2 - Learn and Recognise Examples of Types of Research

Primary Information you have gathered yourself	•Measurement Data •Product Analysis •Market Research •Interviews •Photos	**Secondary** Information presented by someone else	•Reviews •Historical Data •Articles •Adverts •Books

Hwk 3 - Learn and Understand Common 3D Printing Methods

FDM Fused Deposition modelling	**SLA Stereolithography**	**SLS Selective Laser Sintering**
A polymer (plastic) filament is extruded through a heated nozzle https://www.youtube.com/watch?v=qoBU0r7pT84	A laser hardens layers of liquid resin in a vat https://www.youtube.com/watch?v=yW4EbCWaJHE	Layers of metal power are fused together by laser or electron beam https://www.youtube.com/watch?v=sRC8W77MlrY&t=23s

Hwk 4 - Understand the Advantages/Disadvantages of CAD/CAM



https://www.youtube.com/watch?v=--Z-s0zW9xw

Hwk 5 - Learn and Recognise CNC Machines

Watch & LEARN

Lathe https://www.youtube.com/watch?v=-9htuGLegbI

Miller https://www.youtube.com/watch?v=nUdFqAT8i1I

Router https://

ExCELLENCE IN EVERYTHING

Year 9 Food Knowledge Organiser

HOMEWORK 1 – Personal and Kitchen Hygiene

Personal Hygiene	Ensuring that you as a food handler are safe within the kitchen Examples include Washing Hands Wearing an apron
Food Safety	Ensuring that the kitchen that you are working in is safe to prepare food Examples include Wiping kitchen surfaces down

HOMEWORK 2 – The Eatwell Guide

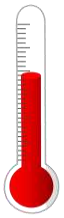
HOMEWORK 3 Macronutrients

Protein- meat, fish, eggs & beans	Needed for growth and repair
Carbohydrates- bread, rice, potatoes & pasta	Provides the body with energy
Fat- meat products, pastry products, cheese, butter, chocolate, biscuits, cakes	Protects vital organs Insulates the body

Micronutrients

Vitamins & Minerals- Fruit & vegetables
Ensure that we are healthy e.g. eyes, skin, hair
Help with the immune system

HOMEWORK 4 - Conditions bacteria need to grow

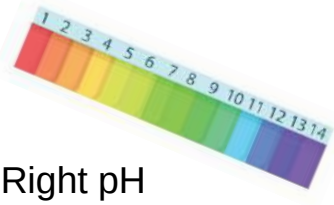


A suitable temperature

Food

A supply of moisture

Enough Time



The Right pH

Cross-contamination is when bacteria is spread between food, surfaces or equipment.
For example, using the same chopping board for raw meat and ready to eat food.

HOMEWORK 5 – Dietary Requirements

Gluten Free (Coeliac Disease)
Is an illness caused by an immune reaction to eating gluten.

Dairy Free (Lactose Intolerance)
is when you get symptoms, such as tummy pain, after eating foods containing lactose, a sugar found in dairy products.

Vegetarian/Vegan - a meat free diet and eat a variety of healthy plant-based foods.
Vegan diet is based on plants. Vegans do not eat foods that come from animals.

Engineering & Technology – Knowledge Organiser

Year 9 Product Design - UCD

Hwk 1

Identify materials:

Copper

Brass

Lead

Zinc

Carbon Steel

High Speed Steel

Aluminium

Stainless Steel

Titanium

Concrete

GRP

Carbon Fibre

Hwk 2

Describe material classifications:

Ferrous Metal - *are metals that have an iron content in them for example mild steel, cast iron etc. (**FE**rrous = Iron)*

Non-Ferrous Metal - *are metals that do not have an iron content in them ie aluminium, copper, tin*

Thermoplastic - is a family of plastics (polymers) that can be heated, formed and allowed to cool into complex shapes. The heating process can be repeated.

Thermosetting Plastic - *once heated, processed and allowed to cool **cannot** be reheated and the process repeated. These plastics (polymers) tend to burn if attempted to be re-heated.*

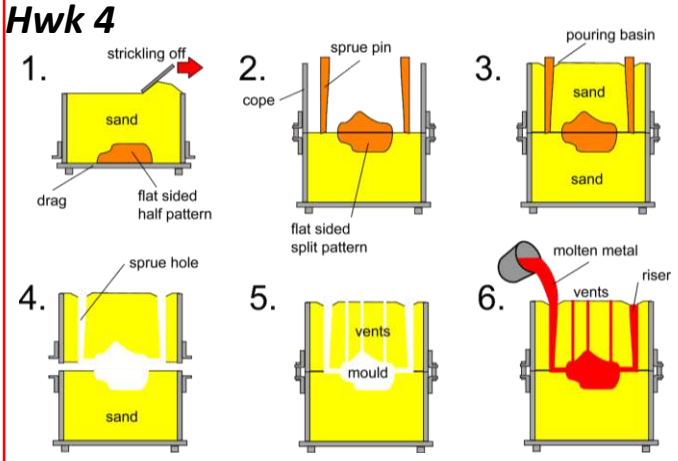
Smart Material - *are materials that react to a change (or react) in their environment such as stress, heat, uv light, electrical current, moisture etc.*

Composite - *is a combination of two or more (very different) materials that when joined create a material with enhanced physical or chemical properties.*

Hwk 3

Ferrous	Non-Ferrous	Composite
Carbon Steel	Copper	Concrete
High Speed Steel	Brass	Carbon Fibre
Stainless Steel	Lead	GRP (Glass Reinforced Plastic)
	Zinc	
	Aluminium	
	Titanium	

Hwk 4



Sand Casting Process

1) Place half of the pattern in the sand and create a mould.
2-3) Create the second half of the mould – including holes for pouring the metal + to release air.
4-6) Remove the pattern, clamp the mould together and pour in the molten metal.
7) Break away the sand from around the part.

Watch & LEARN

https://www.youtube.com/watch?v=2CIcvB72dmk

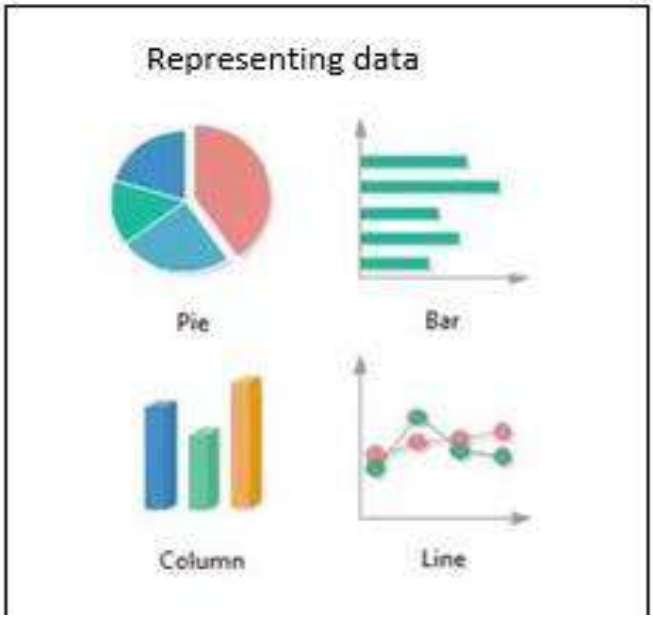
EXCELLENCE IN EVERYTHING

Computing, Engineering Technologies and Nutrition Faculty

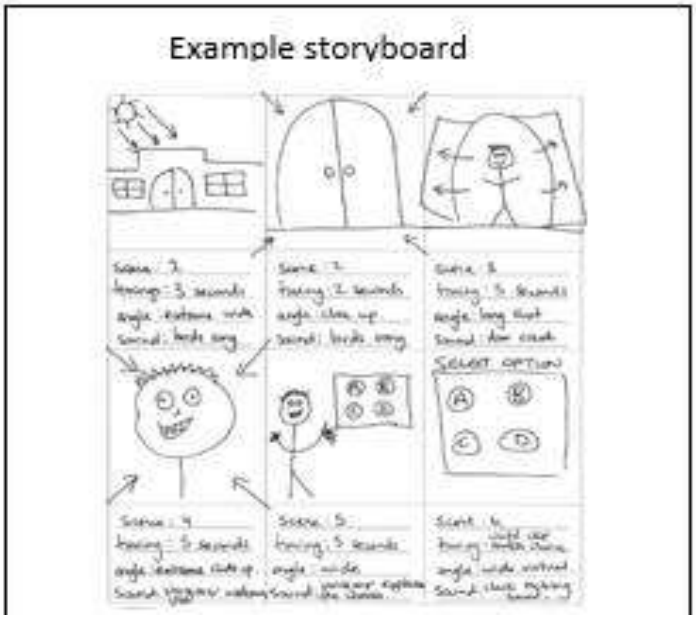
Computing

Year 9 Comp 1

	Key Term	Definition	Examples	
Mobile App	Programming language	A formal language, that a computer can understand and execute to perform specific tasks	Python, JavaScript.	
	Interactivity	How users engage with and influence an app's functionality and content	Clicking a button, selecting from a dropdown menu.	
	Operating system	the software that manages a mobile's hardware and software	Android, IOS	Homework 1
	Security vulnerabilities	weaknesses in systems, software, or hardware that can be exploited by attackers to gain unauthorized access, disrupt operations, or cause other harm	Weak passwords, social engineering, unpatched software.	
Data handling	Spreadsheet	Application software for computation, organization, analysis and storage of data in tabular form	Cash flow forecast, analysis of height vs shoe size	
	Formula	An expression used to perform calculations within a spreadsheet	= B2*C2	
	Data handling	The process of gathering, recording and presenting information	Tables, charts, graphs, storage	Homework 2
	User-friendly	Something that is easy to use and understand	Clear and specific titles, clear layout, etc.	
Video	Pre-production	The process of planning a media production	Meetings, workplans, mindmap, moodboard, storyboard, etc.	
	Storyboard	A sequence of drawings with directions representing shots planned for a film	Scene content, directions, dialogue, etc.	
	Export	Setting the properties of a media product so it is suitable for consumption	Resolution, DPI, aspect ratio, file format, etc.	Homework 3
	File format	The way that media is encoded so it can be read by a computing device	Audio-visual formats include: .mp4, .avi, .wma, etc.	



Homework 4: Representing Data



Homework 5: Storyboard design

Y9 - orbit- intro and fine art

The Visual Elements are the parts used to make a piece of artwork: **Line, colour, tone, shape, form, space, pattern and texture**

Line: The path left by a moving point. For example, a pencil on paper. A line can be horizontal, diagonal or curved and can also change thickness & length.

Tone: How light or dark an object is. Tone can create contrast from shadows to highlights and can help to create a sense of depth or distance.
Shape: A flat area enclosed by line.

Pattern: A design from repeating lines, shapes, colours or tones

Form: Shapes are flat and are 2D Forms have three dimensions. (height, width and depth).

Space: the distances or areas around, between, and within components of a piece.

Texture: the perceived sur face quality of a work of art

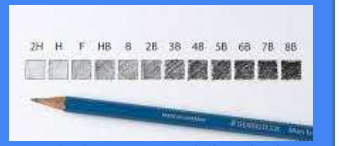
The **ArcelorMittal *Orbit*** is a super tall and twisty sculpture that's also an observation tower. It stands 114.5 meters (about 376 feet) high in the Queen Elizabeth Olympic Park in Stratford, London. It's the biggest piece of public art in Britain.

114.5m tall, the 360 view gives you the chance to explore London's famous skyline through floor to ceiling windows

Designed by Sir Anish Kapoor and Cecil Balmond for London 2012. The Helix, the slide was designed by Carston Holler and is the world's largest tunnel slide, standing at a height of 76m, spanning an impressive 178m in length

Information about pencils

Pencils come in different grades



H= Hard
B= Black
The normal pencil is HB and this is used for lighter tones

Steps for observational drawing

1. Look closely
2. Draw the outline REALLY lightly
3. Use a pencil to measure and check sizes
4. Correct any mistakes by re-drawing and then rubbing out the mistake
5. Lightly draw in areas of obvious tone (light and dark)
6. Use the right pencils- 6B= soft and dark, HB = light
7. Build tone gradually
8. Take your time and don't give up!

6 tips for painting with watercolours

1. Use good quality paper
2. Draw out lightly in pencil
3. Start with the lightest colours
4. Layer watercolour paints to build tone
5. Don't add too much or too little water
6. Mix colours/ make your own hues

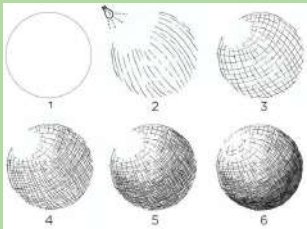
Using Colour Pencils

To effectively use colored pencils, start with light layers and gradually build up color intensity and detail. Layering allows for blending and creating smooth transitions, while varying pressure can achieve different effects. Holding the pencil further back provides better control and even pressure, and using circular strokes can help create smooth, streak-free results.

Directional shading/marks

If you have a curved shape to draw, curving the lines/marks helps to create the illusion of a curved surface.

By following the contours of the subject and varying the density of the lines helps to create a accurate shape and tone.



Public art is art displayed in public spaces, accessible to everyone. It encompasses a wide range of forms, from traditional sculptures and monuments to contemporary installations, murals, and even performances. Public art can be temporary or permanent, and it often aims to enhance public spaces, reflect the community's identity, and encourage engagement.

Types of Public Art

- **Statues and Monuments:** Traditional forms like statues of historical figures or war memorials.
- **Murals and Street Art:** Colorful paintings on walls, often reflecting local culture or social issues.
- **Installation Art:** Temporary or permanent artworks that transform public spaces in unique ways.
- **Performance Art:** Live events or performances that engage with the public in real-time.
- **Interactive Art:** Artworks that invite viewers to participate and interact with the piece.
- **Digital Art:** Artworks projected onto buildings or displayed on screens in public spaces.

Using marks to make tone

Marks close together will make darker tones because there is less paper visible.

YEAR 9 | MUSIC | HT1/2 - FILM MUSIC

HOMEWORK 1

Chord	A series of notes played together at the same time e.g. the James Bond Leitmotif .
Melody	The tune of a piece of music.
Pitch	How high or low a sound is
Rhythm	The recurrence of notes (of different lengths) and rests (silences) in time.

HOMEWORK 2

Discord	A chord where the notes sound like they 'clash' together – often producing a 'tense' feel .
Dynamics	How loud or soft the music is played. It helps show emotion and energy in a song .
Dotted Rhythms	A rhythm where a dot adds half the value to a note, making it longer and giving the music a bouncy or uneven feel. .
Syncopated Rhythms	Rhythms that put emphasis on the weak or off-beats, making the music feel unexpected or more exciting. .

HOMEWORK 3

Stepwise	When a melody moves smoothly from one note to the next, like walking up or down a
Leap	When a melody jumps over notes to a much higher or lower one, like skipping steps on a staircase
Crescendo	When the music gradually gets louder, building up excitement or intensity.
Repeat Marks	A musical symbol made up of two dots and two bar lines, telling the performer to go back to the beginning (or to the previous repeat marks) and repeat the music

HOMEWORK 4

Cue Sheet	A detailed listing of musical cues matching the visual action of a film so that composers can time their music accurately to match the visual images.
Diagetic	Music that is part of the action: the characters in the film can hear it.
Non-Diegetic	Music that is not part of the action: the characters in the film cannot hear it. It is just for the audience.
Leitmotif	A short melody that is associated with a character or idea in a film. E.g., James Bond has his own leitmotif.

You could listen to some music written by the three composers below whilst doing your homework .

John Williams | Hans Zimmer | Danny Elfman

Drama: Year 9 HT1/2- Mobile Phone

A Drama Terms

Narrative	Also known as plot. The narrative of a play is the story.
Structure	The ordering and sequencing of the play/presentation. The structure of scenes affects the way the story is seen by the audience.
Impact	How something within the play is received by the audience. Ensuring that each scene has a purpose which the audience can see can affect the audiences engagement with a play/performance.
Transition	How the performance moves between scenes. Transitions can be simply moving from one scene to another or can be part of the overall atmosphere of the play involving movement, dialogue, music or sound effects.
Genre	The type of story being told with rules which govern that particular telling of it. i.e. Romance, Science Fiction, Horror etc.

B Play Terms

Playwright	The person/people who wrote the play. For 'Twisted' these are Andrew Fusek Peters and Polly Peters
Characters	Also known as 'roles' these are the people who are in the story. The actors play the characters to ensure the narrative is delivered.
Stage Directions	Often written in *italics* these are instructions to the director/actors as to where to be on stage or how to say a particular line. These are not intended to be read out for the audience.
Dialogue	Refers to the words spoken during a performance. These words will appear next to the character name and should be spoken by the character in performance.
Protagonist	This refers to the main/leading character of a play. The person opposite them is referred to as the Antagonist.

C Vocal Skills – How can they help?

Pause	The ability to not deliver all of your lines in one go. Pausing to add emphasis to certain lines can develop your character's depth.
Pitch	Ensuring that you are not too shrill or too low you are able to suggest something about your characters mood or attitude through your vocal pitch.
Accent	Using a different accent can allow your audience to see where your character is from. You could also manipulate the audience by using an accent which is associated with a specific stereotype.
Tone	You vocal tone indicates to the audience the subtext of what you're saying. It allows them to understand more than just the words that are spoken.
Fluency	This refers to how well you know your lines. There is a difference between knowing the words and being so familiar with them that they feel very natural when spoken.
Cadence	This refers to the natural highs and lows of your vocal tone and is the difference between sounding natural and sounding like a robot or simply reading lines.

D Dramatic Techniques

Flashback	A scene which is set back in time from the other scenes to view events which may have gone on before the play started.
Tableau	A still image which tells the audience a story or message. The plural of tableau is tableaux. (pronounced the same)
Choral Speaking	Where two or more people say dialogue at the same time. Can add a strangeness to a scene as it doesn't occur naturally.
Cross Cutting	Cutting between two scenes for a dramatic effect. Highlighting similarities and differences between place / character / time.
Monologue	An extended length of dialogue performed by a single character.
Duologue	An extended length of dialogue performed by two characters. Often a conversation.

John Port Spencer Academy PE Department Knowledge Organiser
YR 9 Badminton

Key Skills:

SERVING –There are several types of serve – short/backhand, long ,flick. A backhand serve should land close to the service line on your opponent's side of the net. The racket head must start from below the waist.

UNDERARM CLEAR (long serve) **–** This shot is played high to the back of your opponent's court. Start sideways on and use a whip action with the wrist to create power.

OVERHEAD CLEAR – Played to the back of your opponents' court and is a defensive shot. Start sideways on, racket up and behind you, contacting the shuttle in front of you.

DROP SHOT (underarm and overarm)- a shot played with finesse to land the shuttle as close as possible to the net on your opponent's side.

SMASH/JUMP SMASH SHOT – This is the main attacking shot in badminton. It is an overhead shot, hit in front of the body, that aims to get the shuttle down on the floor at a sharp angle. The wrist needs to "snap" to get it down. Jumping to hit the shot gives it more power.

TACTICS
- Hitting into space – keep your opposition moving around the court
- Shot selection – selecting the correct shot for the situation
- Targeting opponent's weaknesses
- Disguised shots – trying to make it look like you are going to play a particular shot but then play a different shot to fool an opponent.
- Doubles play – role of players. Front/back formations or side to side.

Rules

Game starts with a diagonal serve- right hand side service box to right hand side service box.

Serve must land over the service line.

Play to 21 points – but must win by 2 clear points up to 30. 29-29 next point wins.

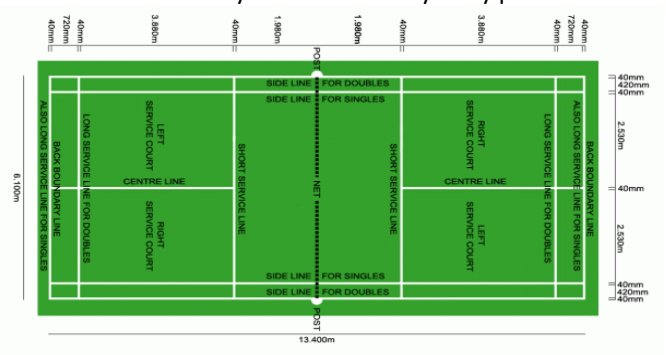
A point is won every rally.

Whoever wins the point serves next.

When your score is even, serve from right. When your score is odd, serve from left.

Court is long and thin for singles, short and wide for doubles.

You cannot contact the net with your racket or any body part.



Stretch and Challenge Task:

- watch a professional match online.
- try and score a game in lesson or by watching online.
- Find out what happens when the wrong doubles player hits the serve. Who wins the point? The server or returner?

Key Terms to learn:

Grip and ready position	Drop shot
Rally	Disguised shot
Serve –backhand/short, long, flick	Smash
Ready position	Overhead/ Underarm Clea

John Port Spencer Academy PE Department Knowledge Organiser

Activity: Football

Year: 9

Key Skills:

- Controlling the ball – using different parts of the body – this could be the feet, thigh, chest and head. Use both feet. Remember to cushion the ball.
- Passing – there are 3 types of passes. Side foot pass, driven pass with the laces and a lofted pass. Using the side of the foot allows you to pass accurately over a short distance; a driven pass allows you to pass the ball on the floor, but a greater distance. Finally, a lofted pass allows you to lift the ball in the air over players and change direction. Remember to keep your standing foot next to the ball when you make the pass.
- Dribbling – dribbling allows you to move the ball quickly around the pitch using the inside and outside of your feet and keeping, the ball close to your feet and your head up.
- Turning with the ball and outwitting a defender – turning with the ball allows you to change direction using different techniques, such as dragging the ball back with the sole of your boot. Outwitting and opponent allows you to beat a defender using different techniques such as a step over.
- Shooting – there are different types of shots that allows you to score goals. You instep can be used to control and place the ball into the goal. If you use your laces then this allows more power to be produced. Try and use your non-dominant foot.
- Heading – you can use an attacker header, a defensive header or a controlled header, which might be passing the ball back to someone with your head.
- Attacking – keeping possession – making a number of passes allows your team to keep possession and advance up the field.
- Tackling techniques – tackling, jockeying and forcing the player onto their weaker foot.

Strategies and Tactics:

Attacking – using the width is very important when attacking. It is important teams keep possession and play one and two touch to move the ball quickly. Also, another effective strategy is to 'switch' the play using a lofted pass. To keep possession some teams may use the depth of the pitch to keep possession and build an attack.

Defending – players are normally marked man to man, but can be marked zonal from corners. It is also important that defenders keep a good line, which may allow them to play the opposition offside. This also means the defending team isn't too deep near their goal.

Stretch and Challenge Task:

- Why is it important to move the ball quickly when keeping possession?
- How can width be provided in different formations like 4-4-2, 4-3-3 or 5-3-2?
- What is zonal marking?

Key Content and Terms to learn:

Passing, dribbling, shooting, heading, attacking, defending, possession, width, depth, different formations, offside rule, 'switching' play

John Port Spencer Academy PE Department
Knowledge Organiser Year 9 Fitness

Key Skills:

You will be following a programme and using the fitness suite.

Key Terms:

- Sets
- Repetitions

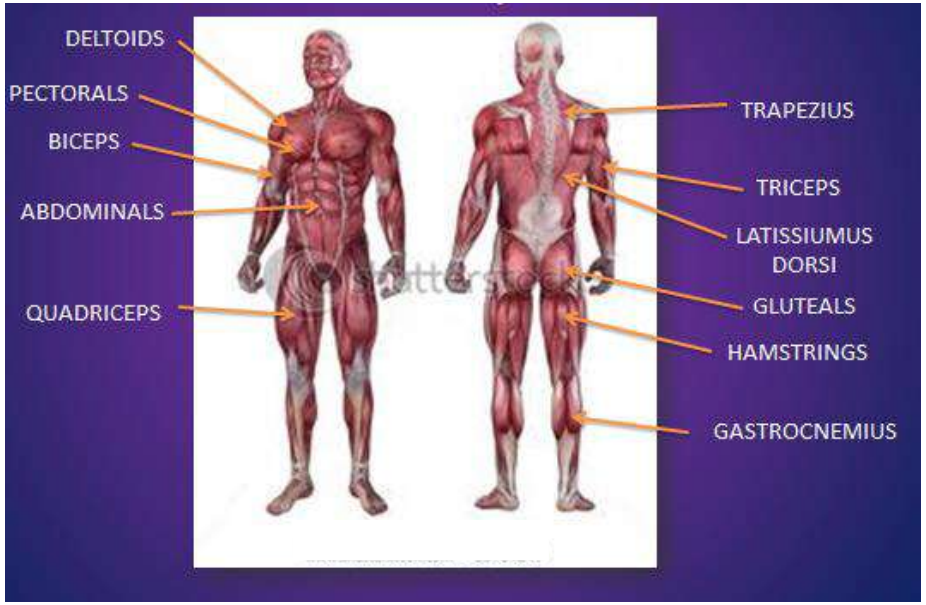
Cardiovascular machines

- Treadmill
- Rowing Machine
- Bike
- Cross Trainer
- Arm Bike

Weight / Resistance machines and muscles being worked –

- Leg Press - Quadriceps
- Seated Row - Bicep
- Leg Extension - Quadriceps
- Chest Press - pectorals
- Shoulder Press – deltoids
- Leg Curl - Hamstrings

Key Terms: 11 Major Muscle Groups



Stretch and Challenge Task:

Devise a Training Programme for a Specific Sport

Key Content and Terms to learn:

Quadriceps, deltoids, pectorals, biceps, abdominals, trapezius, triceps, latissimus dorsi, gluteals, hamstrings and gastrocnemius. Sets and repetitions.

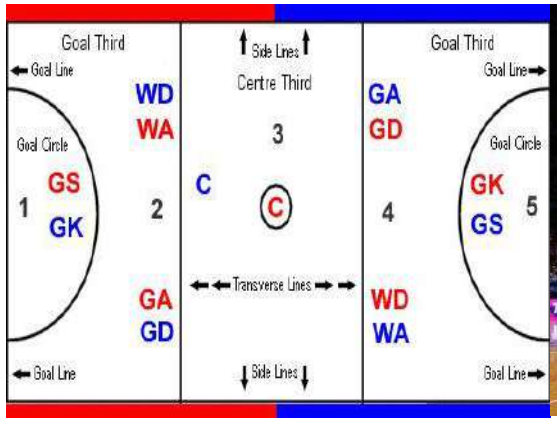
John Port Spencer Academy PE Department
Knowledge Organiser – YR 9 NETBALL

Key Skills:
Passing and receiving – different types of passes include chest pass, bounce pass, shoulder pass and overhead pass. 1 handed as well as 2 handed.
Attacking – getting free from an opponent in order to receive the ball. Includes the skills of sprinting, dodging and changing direction.
Shooting – With one hand under the ball and the other steadying it at the side, keep your eyes on the hoop, bend your knees and push the ball with the fingers.
Defending – Marking your opposite player both with and without the ball. Zoning.
Footwork – You must land with a 1-2 landing or with 2 feet. You must then not move the landing foot.
Holding space – trying to keep space in which to receive a pass. Especially useful in the circle.
Passing ball through positions - to improve timing of movement and create space.
Set Plays – including centre passes, throw ins, back line passes.

POSITIONS AND RESPONSIBILITIES
Goal Shooter (GS) – To score goals and work in and around the circle with the GA. Marks the GK.
Goal Attack (GA) – To feed the ball to the GS and to score goals. Marks the GD.
Wing Attack (WA) – To feed the ball into the circle and to help move the ball down to the teams attacking third. Marks the WD.
Centre (C) – To take the centre pass and to act as a link between defence and attack. Moves the ball down the court. Marks the opposite C.
Wing Defence (WD) – To look for interceptions and move the ball down into attack. Marks the WA.
Goal Defence (GD) – To get the ball from the attack and help pass it back down the court. To prevent the GA from scoring. Marks the GA.
Goalkeeper (GK)- To work with the GD and to prevent the GA/GS from scoring. Marks the GS

Stretch and challenge task
- Watch an international or super league game of netball online.
- What is the order you should pass the ball through starting from GK?

Rules: The game starts with a centre pass and the ball must be caught in the centre third.
You must comply with the footwork rule e.g. a 1-2 landing or a 2-footed landing.
You only have 3 seconds to release the ball.
When defending you must be 1 metre away from the player (obstruction).
There must be no contact with an opposing player (contact).
Only GS and GA may score a goal.
You must stay in the correct area of the court for your position(offside).
Teams take it in turns to take a centre pass.
The ball must be touched in each third of the court.
You cannot catch the ball, drop it, and then try to catch it again or bounce the ball (replaying).
When shooting, the ball must touch the ring or net, or post, or it is counted as passing the ball to yourself and is a free pass to the other team.



Key content and Terms to learn

Passing and receiving	**Shooting**
Attacking	**Umpiring**
Defending	**Possession**

- Do/should the defenders always stay with their opposite player? If not, why not? What do international players do? - Why might you get a penalty pass when playing netball? What is the difference when a penalty happens in the circle? - What is zoning? Why might a team use this tactic?	**Footwork** **Holding space** **Contact** **Dodging** **Replaying** **Zoning**