ASH MANOR SCHOOL
Aspire & Achieve

Year 10 Autumn Term

Knowledge organiser

Name:	Tutor group:
Tutor:	Tutor room:

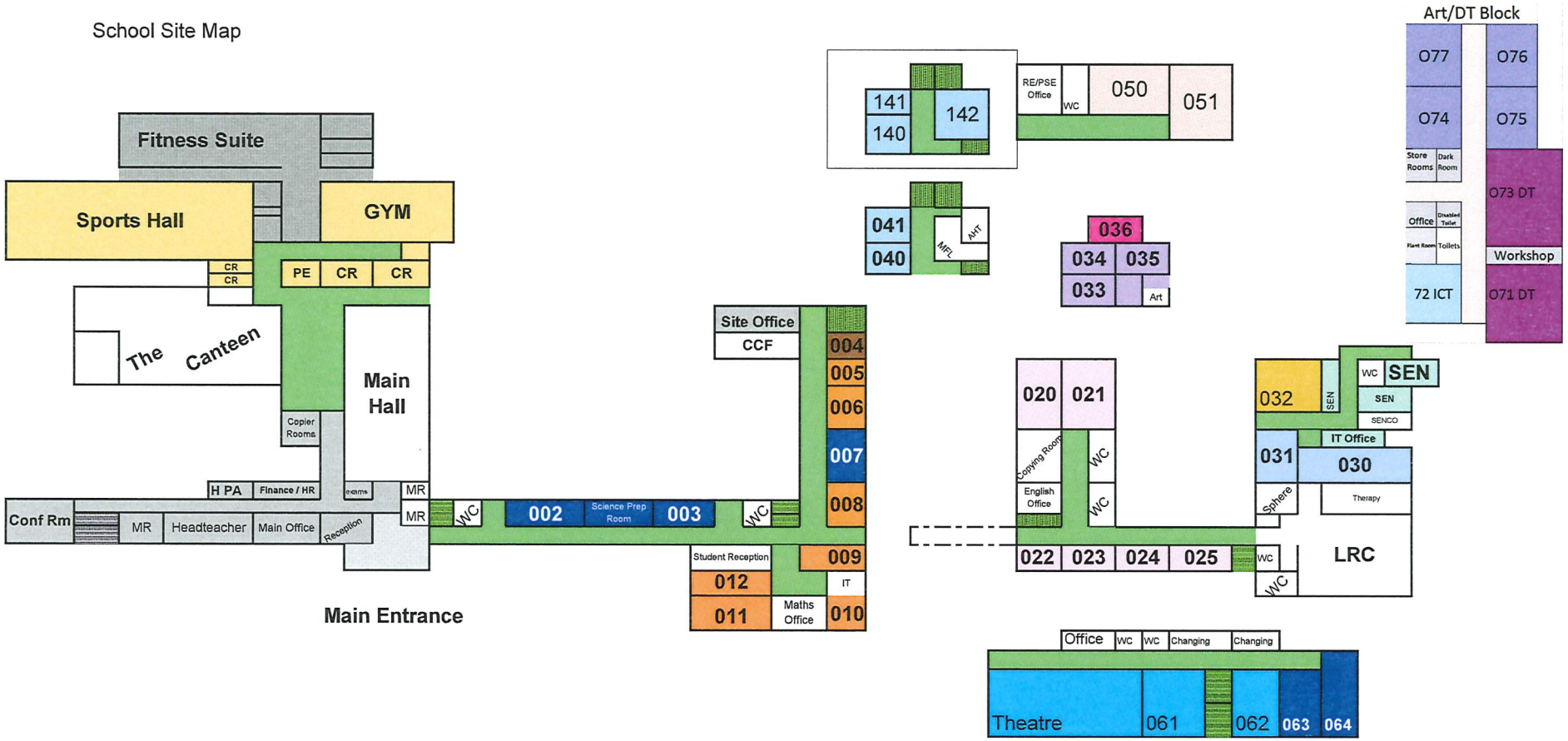
Key School information

Times of the school day	
8.00am – 8.30am	Breakfast in canteen
8.35am	Pre-lesson 1 bell
8.40am-9.30am	Lesson 1
9.30am-10.20am	Lesson 2
10.20am-10.40am	Morning break
10.40am-11.30am	Lesson 3
11.30am-12.20pm	Lesson 4
12.20pm-1.00pm	Lunch
1.00pm-1.20pm	Tutor time / Assembly
1.20pm-2.10pm	Lesson 5
2.10pm-3.00pm	Lesson 6
3.00pm-4.00pm	Extended learning and extra-curricular clubs

Term dates	
Autumn term	**Y7**: 04/09/23 to 15/12/23 **Y8-11**: 05/09/23 to 15/12/23
Half term	23/10/23 to 27/10/23
Spring term	03/01/24 to 28/03/24
Half term	12/02/24 to 16/02/24
Summer term	15/04/24 to 19/07/24
Half term	27/05/24 to 31/05/24

Important IT details	
Username	
Password reminder	

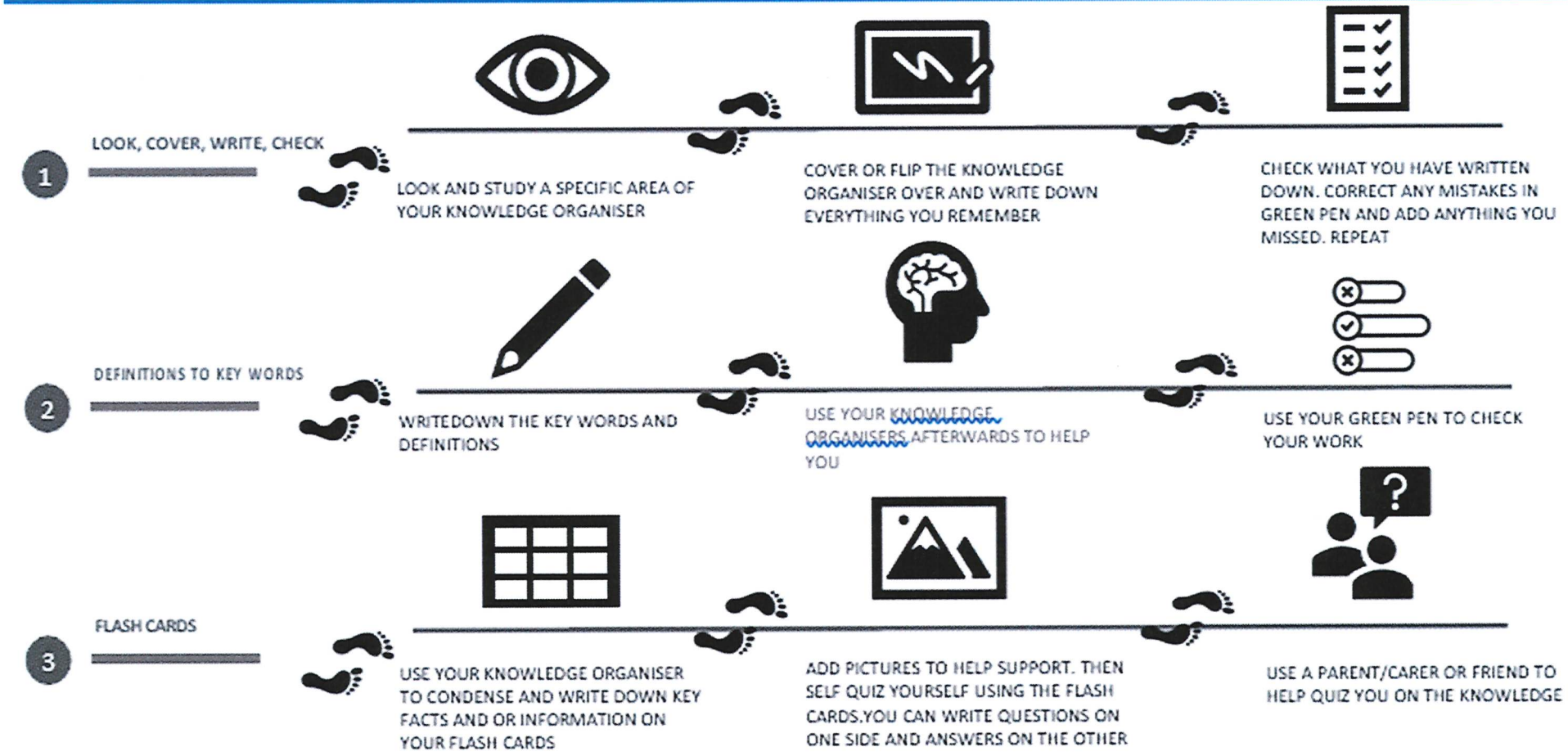
School Site Map



shared\office\school site map

How to use Knowledge Organisers – a step by step guide

Knowledge organisers contain critical knowledge you must know. This will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long term. You must have this for every lesson – it is part of your equipment.



KNOWLEDGE ORGANISERS ARE ALSO AVAILABLE ON THE SCHOOL'S WEBSITE:
https://www.ashmanorschool.com/

How to use Knowledge Organisers – a step by step guide

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4 SELF QUIZZING

USE YOUR KNOWLEDGE ORGANISERS TO CREATE A MINI QUIZ. WRITE DOWN QUESTIONS USING YOUR KNOWLEDGE ORGANISER

ANSWER THE QUESTIONS

YOU CAN ALSO USE FAMILY TO HELP QUIZ YOU. KEEP SELF QUIZZING UNTIL YOU GET ALL QUESTIONS CORRECT

5 MIND MAPS

CREATE A MIND WITH ALL THE INFORMATION YOU CAN REMEMBER

CHECK YOUR KNOWLEDGE ORGANISERS TO SEE IF THERE WERE ANY MISTAKES WITH THE INFOMRATION YOU HAVE MADE

TRY TO MAKE CONNECTIONS THAT LINKS INFORMATION TOGETHER

6 PAIRED RETRIEVAL

ASK A PARTNER OR FAMILY MEMBER TO HAVE THE KNOWLEDGE ORGANISER OR FLASH CARDS IN THEIR HANDS

THEY CAN TEST YOU BY ASKING YOU QUESTIONS ON DIFFERENT SECTIONS OF YOUR KNOWLEDGE ORGANISER

WRITE DOWN YOUR ANSWERS IN YOUR PRACTICE BOOKS

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Year 10 Ancient History: Term 1

The Persian Empire, 559-465 BCE

Herodotus - A Greek historian who wrote about the reigns of the Achaemenid Kings. His overall intention was to explain why the Greeks beat the Persians in the Persian Wars.

What was it like in Cyrus' Empire?

Succession – Herodotus claims that Cyrus was born as the grandson of King Astyages. He claims that Astyages tried to have Cyrus killed as a baby, and when Cyrus grew up he overthrew his grandfather. The more accurate Nabonidus Chronicle suggests that Cyrus invaded Persia and made himself king.

Pasargadae – A city built by Cyrus. It included 1,100m of waterways, palaces and pavilions. It also included beautiful gardens and the tomb of Cyrus.

Croesus – The king of Lydia. Cyrus was going to burn him on a pyre until he believed the gods wanted him saved. Croesus became one of Cyrus' chief advisors.

Cyrus Cylinder – After conquering Babylon, the Cyrus cylinder (propaganda) tells us he restored the god Marduk, and built walls to defend the people there.

Jews – The Jewish Bible calls Cyrus a 'messiah' for allowing them to return to Jerusalem and paying for a new temple for them.

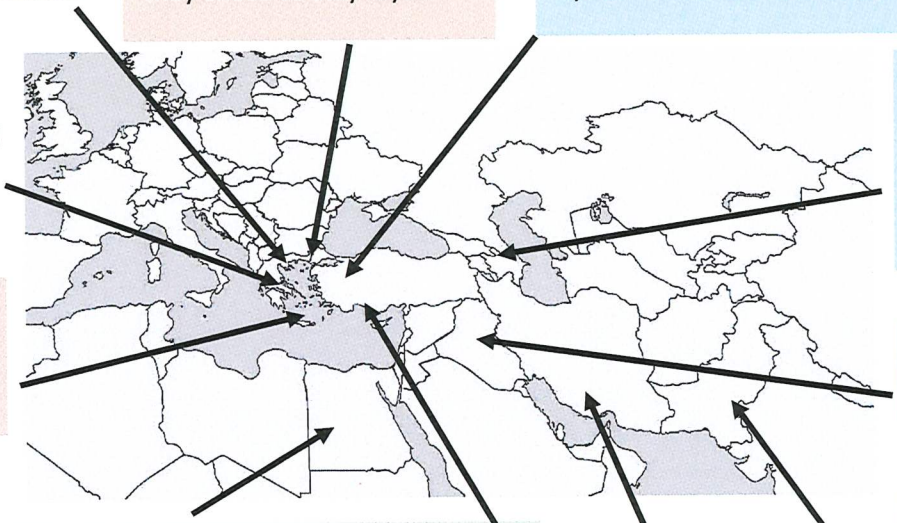
Scythian Campaign – Darius failed in his invasion of Scythia as the Scythians avoided a pitched battle. When the Ionians had the chance to betray Darius, they chose to stay loyal.

Lydia – Cyrus' first major conquest. After a draw with the Lydian army at the River Halys, Cyrus caught the Lydians by surprise by attacking their city of Sardis straight away (instead of waiting for the winter). Cyrus' commander Harpagus recommended putting camels in the front line to scare the enemy horses and after winning the battle, Cyrus' men climbed over the city walls.

Thrace and Macedonia

Greece (including Sparta and Athens)

Aegean (Greek) Islands



Massagetae – Cyrus attempted to invade the territory of the Massagetae, however was killed by Queen Tomyris' army. Other versions of Cyrus' death describe him dying peacefully in Pasargadae.

Babylon – City conquered by Hannibal. He did this by digging channels into their water supply to empty it, then marching through the empty channel into the city while the people were celebrating a festival.

Egypt – Herodotus gives 3 different stories to describe why Cambyses wanted to invade Egypt. However, it is most likely that Cambyses wanted to invade because of its strategic importance. He allied with the Phoenicians to use their navy as part of his invasion, and was guided by the mercenary Phanes.

Ancient Persia

Indus Valley

Ionian Revolt – The Ionian cities in Asia Minor, led by the tyrant of Miletus (Aristagoras) rebelled against Darius. They had help from the Athenians, who burnt down Sardis. The revolt ended with the Ionian defeat at the naval battle at Lade.

What was it like in Cambyses' Empire?

Apis Bull – Considered by the Egyptians to be a god on Earth, Herodotus describes Cambyses as stabbing the bull in the leg and killing it. However, the Epitaph to the Apis Bull describes Cambyses piously burying an Apis Bull according to Egyptian customs.

Udjahoressne – An advisor to Cambyses. His inscription describes Cambyses as piously restoring the goddess Neith to her temple.

Amasis – The pharaoh of Egypt before Cambyses. Cambyses desecrated his body by piercing it with goads and setting it on fire.

Tyranny of Cambyses – Acts committed by Cambyses include marrying and murdering his sister, skinning a judge and turning him into a chair, laughing at the god at Hephaestus and having his brother, Smerdis, assassinated.

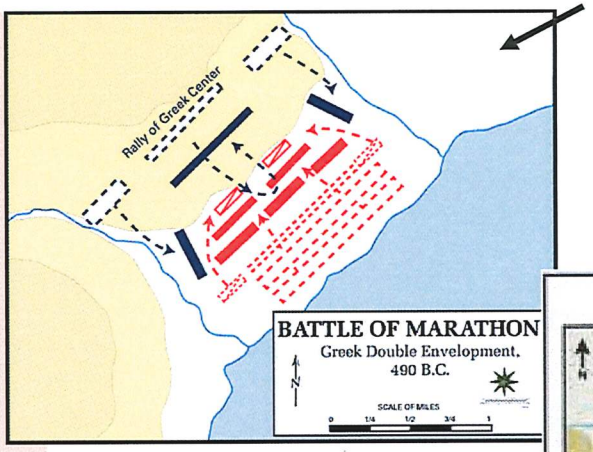
What changes did Darius make to the Empire?

Succession of Darius – Herodotus tells a long story where after discovering that a Magi was pretending to be his brother, Smerdis (having seized power), Cambyses died on his way back to Persia. Some Persian noblemen (including Darius) found out about the fake king and conspired to overthrow him. After this, Darius became king.

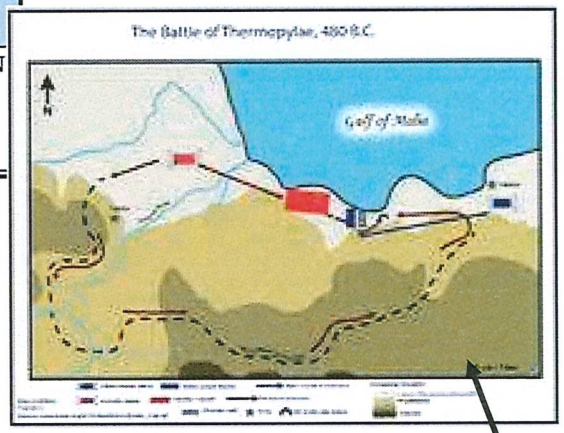
Bisutin Inscription – Inscription commissioned by Darius which describes how he became King of Persia. It also shows and describes hit oppression of rebellion against him when he first became king, as well as being watched over the god Ahuramazda.

Darius' changes to the Empire – Darius made administrative changes to the Empire such as introducing satrapies and satraps to run them, a road network to span the whole empire, building the city of Persepolis and making additions to Susa (including the apadanas), as well as beginning construction on the Egyptian canal.

Conquests of Darius – Darius succeeded in his invasion of the Indus Valley, Thrace, Macedonia, and several Aegean (Greek islands).



Battle of Marathon – The Athenians, led by Miltiades, pushed back the Persian invasion of Greece (led by Datis) at Marathon. The Athenians ran at the Persians, before flanking them on either side. This ended Darius' invasion of Greece.



Battle of Thermopylae – The Persian forces defeated a defence by 300 Spartans and a few thousands other Greek forces (led by King Leonidas) when a Greek traitor (Ephialtes) led the Persians through a secret passage in the mountains to surround the Greek forces.

Battle of Salamis – Naval battle between the Greeks (led by the Athenian Themistocles) against the Persians. Themistocles used the wind to his advantage to defeat the Persian fleet. This pushed Xerxes out of Greece, and the rest of his troops followed after their failure in the Battle of Plataea the following year.

What did Xerxes do before he invaded Greece?

Xerxes' succession – Xerxes was the oldest son of Darius and Atossa (but not Darius' oldest son).

Development of the Empire - After becoming king, he put down a revolt in Egypt, finished his father's building programmes, and launched a second invasion of Greece.

Preparations – Xerxes built up his army to over 1 million men and built a bridge to cross the Hellespont. He also built supply depots along the route to feed his army.

Art

Words to help you critique artwork:

Tone:
subtle
contrasting
muted
flat
light
dark
dramatic
depth
shadowy

Line:
delicate
simple
bold
thick
thin
fine
vertical
horizontal
flowing

Movement:
swirling
flowing
gentle
rippling
sudden
stillness
rhythm
dynamic

Colour:
bold
vibrant
vivid
cool
warm
subtle
pale
earthy

Shape:
organic
curvaceous
circular
geometric
angular
irregular

Wayne Thiebaud 1920-2021
Pop Artist, pastel shades.

Final piece planning
I have done the following:
- ✓ Sketched what my final piece will look like
- ✓ Experimented with the techniques
- ✓ Added labels to show different techniques
- ✓ Included colour where appropriate
- ✓ Annotated with a statement of intent to show where my idea has come from

GCSE Assessment objectives – you will be marked on each for your coursework			
AO1	AO2	AO3	AO4
Develop your ideas through investigating artists, designers and other appropriate sources. Demonstrate critical understanding of sources.	Refine your work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.	Record your ideas, observations and insights that are relevant to your project intentions as work progresses. Annotate work and include drawings within your sketchbook.	Present a personal and meaningful response that realises your project intentions and demonstrates understanding of visual language.

Statement of intent
- What are you planning to do?
- Why are you planning to this? – where has the idea come from?
- What techniques are you going to use?
- What have you been influenced by?
- How does the idea link to artists and designers that you've researched?

Annotation checklist
What have you done?
How have you done it?
What inspired you?
What else did you try?
Why was it successful?
Is there anything you would change/need to do now?

Sketchbook presentation
I have done the following:
- ✓ Used appropriate colours in the background, title and writing.
- ✓ Used appropriate font for the title.
- ✓ Considered the layout of my page before sticking it down.
- ✓ Creatively laid out my work on the page – e.g. used flaps, layered work, used a window, mounted the work

Year 10 – GCSE Business – Term 1

Theme 1 Building a business
Paper 1

Why new business ideas come about:

- **Changes in technology.** New technology can often improve products and make them more desirable.
- **Changes in consumer needs.** Fashions and tastes are always changing. This affects clothes, cars etc. but also peoples lifestyles, and trends such as healthy eating and fitness. Businesses must adapt to meet these trends.
- **Products becoming obsolete.** Products become outdated overtime and new products are introduced. For example, DVD rental became obsolete as a result of streaming services.

How do new ideas come about?

- **Original ideas -** Entrepreneurs need to be creative to come up with new completely new ideas. Many new ideas are not successful but successful ones can completely change the market. E.g. Ipads, Tesla cars, Dyson Vacuums
- **Adapting existing products -** Easier than a completely new idea (80% of new products fail!). This can involve small changes (think of all the different design fidget spinners) or new versions of an existing brand – Coke Zero Cherry, Dairy Milk Bubbly, Giant Crumpets, newest James Bond film.

Entrepreneur: Someone who is willing to take the risks involved in starting a new business.

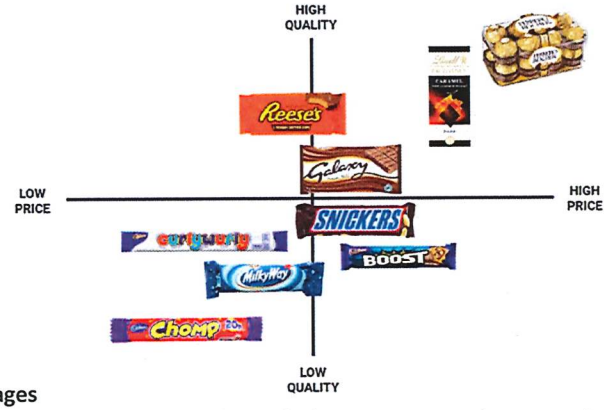
Enterprise: The process of identifying new business opportunities and taking advantage of them.

Risks and rewards of starting a business

Rewards	Risks
* Business success	* Business failure
* Profit	* Financial loss
* Independence	* Lack of security

Market Map

A market map illustrates the range of "positions" that a product can take in a market based on two dimensions that are important to customers.



Advantages

- To identify a gap in the market – The business can produce a product to fill the gap which will be different to competitors – The business will have a Unique selling point (USP) which may give them a competitive advantage.
- To identify and analyse competitors – The business can identify how similar their product is to competitors – and seek ways in which they can differentiate the product – to help increase sales and market share.

Disadvantages

- Just because there is a "gap" doesn't mean there is demand
- The information is subjective – as it is based on opinion and therefore may not be reliable.

Market Segmentation

Market segmentation involves dividing a market into parts that reflect different customer needs and wants.

Market segments that businesses use to help them market effectively to their target customers include:

- location
- demographics
- behaviour
- lifestyle
- income
- age.

Competition

Competition affects how businesses make decisions. To stand out in a competitive environment, businesses need to make decisions that will persuade customers to buy from them, rather than their competitors. When making these decisions, the business might look at the strengths and weaknesses of its competitors.

Calculating profit or loss

The table contains information about a small business for one month. The business sold **270** units in this month.

Sales price (per unit)	**£50**
Variable costs (per unit)	**£18**
Fixed costs	**£2500**

Calculate the **profit or loss** for this business. You are advised to show your workings.

Step 1: Work out **Revenue**

270 x £50 = £13 500

Step 2: Work out **Total costs**
(Total costs = Fixed costs + Total variable costs)

Total variable costs = 270 x £16 = £4320

Total costs = £2500 + £4320
Total costs = £6820

Step 3: Work out **Profit or loss**
(Revenue – total costs)

£13 500 - £6820 = £6680 profit

Year 10 – GCSE Business – Term 1

Theme 1 Building a business
Paper 1

Unlimited liability - The owners are liable for any debts that the business incurs. The owners may have to use their own personal funds to pay for any debts, possibly through the sale of their homes or other assets.
Limited liability - The company's finances are separate from the personal finances of its owners. Any debts incurred by the business belong to the business and the owners can only lose money up to the amount that they have invested in the business.

Types of business ownership

Sole trader - an individual owning the business on their own.
+ Sole trader keeps all the profit
+ Sole trader makes all of the decisions
- Sole trader has unlimited liability
- Making all the decisions can be stressful

Partnership - Started and owned by **more than one person**
Partnerships can have limited or unlimited liability.
+ Owners may have wider expertise and can share ideas and decision-making.
+ Owners share the risk
- Profits have to be shared
- Partners may disagree and decision-making can take longer as a result

Private limited company – a company is formed when a business is set up to have a separate legal identity from its owners. Owners are now known as shareholders. Private limited companies have Ltd. after their name.
+ Has limited liability
+ It is easier for a Ltd. company to get a loan than it is a sole trader
- More complex to set up than a sole trader and more expensive because of all the legal paperwork.
- Accounts have to be published every year

Franchising – a franchise is like buying a ready-made business in a box. An entrepreneur can set up their own business using the name, equipment and products of the franchise.
+ Brand image and reputation is already established.
+ May have an established customer base.
+ The franchisee benefits from national advertising campaigns.
- The franchisee will have to pay a fee or a percentage of sales revenue to the franchisor.
- The franchisee has little freedom to make decisions.

The Marketing mix (The 4 P's)

Product: targeting customers with a product that has the right blend of functional and aesthetic benefits without being too expensive to produce.

Price: The price of a product must reflect the value customers place on the product.

Place: how and where the supplier is going to get he product or service to the consumer.

Promotion: all the methods that a business uses to persuade customers to buy.

The Business plan

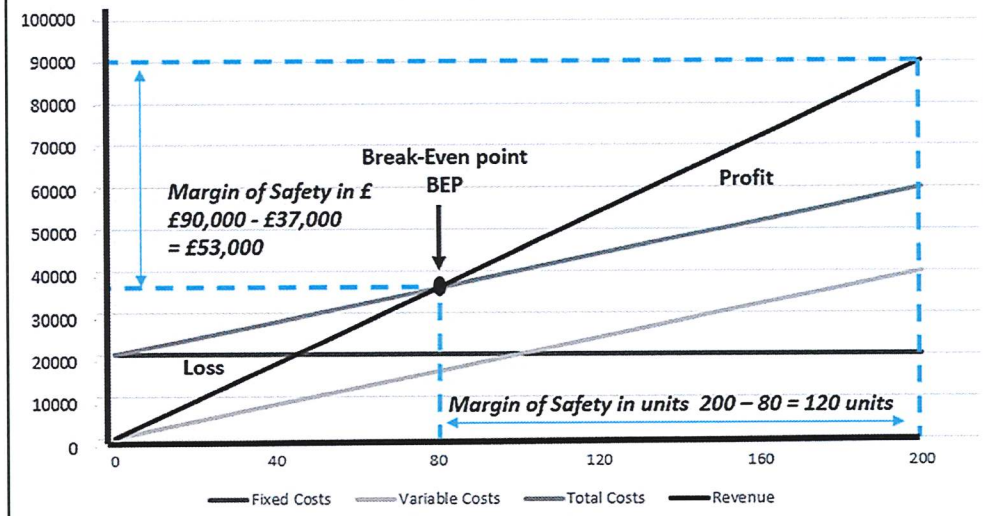
1. Minimising risk Setting up a business involves risk, such as the potential loss of invested money and time. A business plan can help to minimise risk, but it will not eliminate risk. Risk can be reduced by:
• very detailed planning that makes the entrepreneur think through the issues that may arise
• setting clear objectives and aims to help provide direction when making business decisions
• conducting market research to help inform decision-making
• making financial forecasts so that the entrepreneur can set budgets and monitor spending
• using a cash flow forecast to identify times when there may be a negative cash balance and to plan for this in advance (e.g. an overdraft).
2. Obtaining finance If an entrepreneur is trying to raise finance from a bank, such as a bank loan, the bank manager would review their business plan before granting the loan in order to see how the entrepreneur intends to repay the money.

Sources of finance

Short-term
- Trade credit (an agreement with suppliers to pay later)
- Overdraft

Long-term
- Bank loan (must be paid back to the bank with interest)
- Personal savings
- Share capital
- Venture capital
- Retained profit (profit the owner(s) decide to re-invest in the business)
- Crowd funding

Break-Even Chart



Key Words

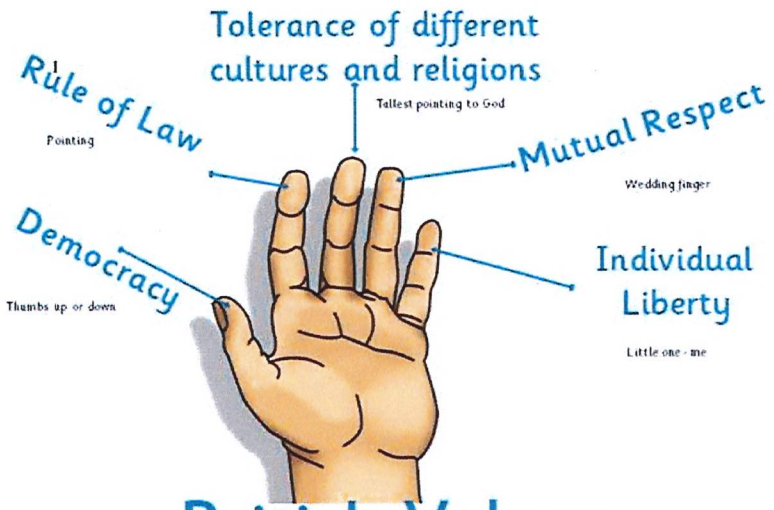
British Values – A set of Standards which reflect the ideals of British Society.

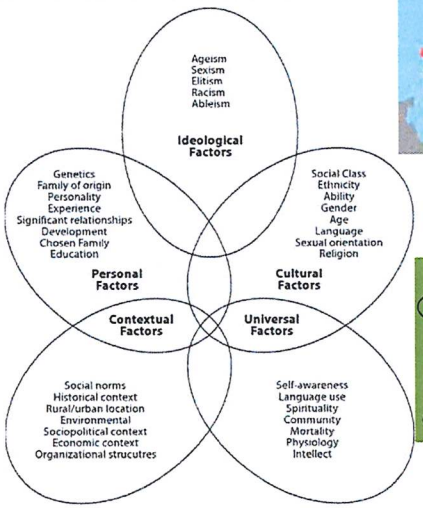
Active Citizen – A person who actively takes responsibility, becomes involved in areas of public concern and tries to make a difference.

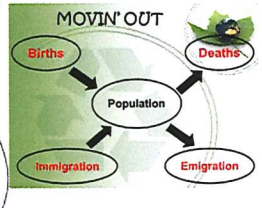
Citizenship – Being a citizen of a country and being vested with the rights and responsibilities of that state.

Democracy – A system of government, where citizens are able to vote in regular and fair elections for representatives, who will make laws and decisions on their behalf.

Equal Opportunities – Allowing all people access to the same opportunities, regardless of their disability, religion, age, ethnicity, gender or sexual orientation.







Key Words

Immigration – The process of people moving from one country to another to live and work.

Migration – The movement of people between different countries.

Multiple Identities – When an individual is able to assume a range of different identities. These identities may clash.

Multiculturalism – The co-exsistence of different ethnic races, cultures or religions.

Responsibilities – A duty that we are expected to do as a citizen of a country.

Rights – A right is something we are entitled to by law.

Society – The people living together in an ordered community.

Key Words

Advocacy – Representing or supporting a person or an organization by writing, speaking or taking action on behalf of that person.

Charities – Local, national or international organisations that are set up to help those in need.

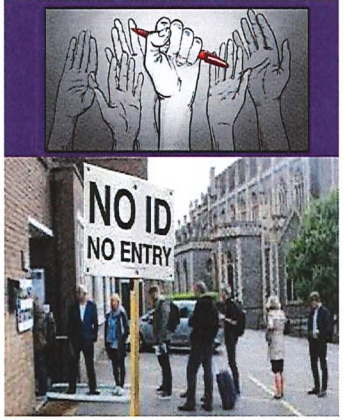
Campaigning – Actions or events organized by an individual or a group of people to achieve an aim.

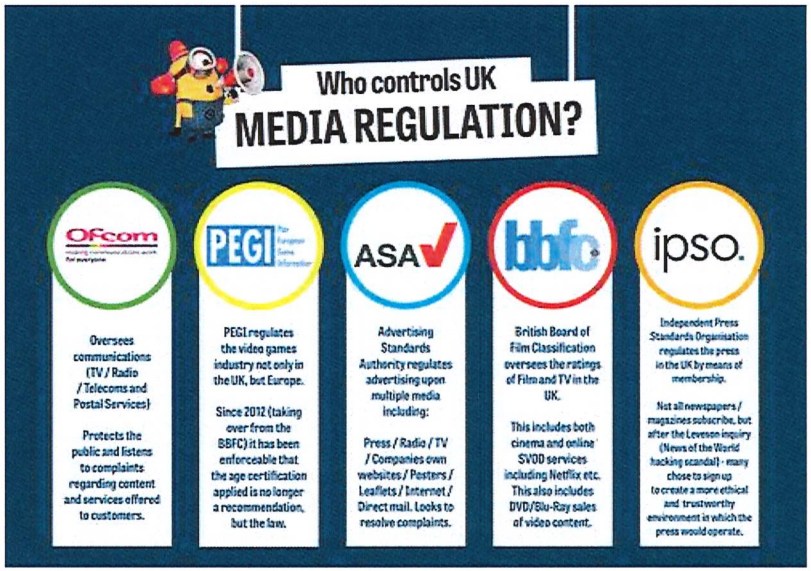
Censorship – The control or information or ideas within a society.

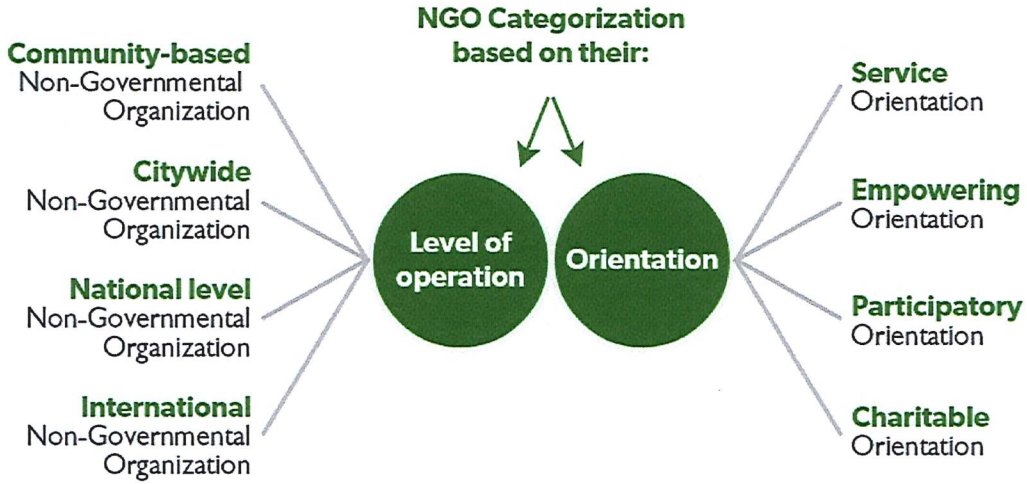
NGO (non-Governmental Organisation – A non-profit, voluntary group of citizens who work on a local, national or international level to achieve an aim. They are not controlled by the government but will often work closely with them. An example of an NGO is Save the Children.

Pressure group – An organized group of people who take action together to try and bring about a change regarding a specific issue.

1. Name 5 popular newspapers in the UK.
2. Name 4 roles of the media
3. Name 3 responsibilities of the media
4. Name 2 programmes that are popular in Britain.
5. Name 1 opinion on the News of the World and Sarah's Law.







Key Words

Devolution – The transfer of some powers from the Government to the Welsh Assembly, the Northern Ireland Assembly and the Scottish Parliament.

Demonstration – A public meeting or march against a specific issue.

The Media – A means of communication.

- Mass media – television, radio and printed media which can reach a number of people
- New media – the internet and social media

Trade Unions – A group of workers in the same trade or profession who have joined together to protect their rights.

Interest group – An organsiation which tries to influence the government to adopt certain policies on a particular issue.

Lobbying – A person or group of people meeting or taking action (e.g. writing letters, demonstrating, petitioning) to try and persuade a politician to take up their cause.

COMPUTING YEAR 10 AUTUMN 1
2.1 ALGORITHMS

Computational Thinking –	the use of computers to solve problems.
Abstraction –	representing 'real world' problems in a computer using variables and symbols and removing unnecessary elements from the problem
Decomposition –	breaking down a large problem into smaller sub-problems. A problem could decomposed in several valid ways.
Algorithmic Thinking –	identifying the steps involved in solving a problem.

Inputs –	• Anything which needs to be supplied to the program so it can meet its goals. • Often input by the user. • Consider an appropriate variable name and data type for the input.
Processes –	• Consider what calculations need to be performed while the program is running. • Does data need to change formats or data types
Outputs –	• Consider what your program need to output. • Consider what form this output need to take. • Consider an appropriate variable name and data type for any output

STRUCTURE DIAGRAMS

- Structure diagrams illustrate problem decomposition.
- They can be used for developers to understand a problem to code and to share with users during systems analysis.
- They are produced using a method known as step-wise refinement.
- Break problem down using decomposition into ever smaller components.
- Some areas of the program will needed breaking down more than others.
- The lowest level nodes should achieve a single task.
- These can then be coded as a single module or sub-program.

Flowcharts –	A method of representing the sequences of steps in an algorithm in the form of a diagram. Sometimes called a Flow diagram
Structure diagrams –	A diagram showing a top-down breakdown of a complex problem
Pseudocode –	A text based alternative of representing the sequences of steps in an algorithm. Pseudo-code can be thought of as a simplified form of programming code.
OCR Reference Language –	You must be able to read this but you can always use Python in your exams—but be precise

Syntax Error–	Syntax errors are errors which break the grammatical rules of the programming language. They stop it from being run/translated
Logic Errors –	Logic errors are errors which produce unexpected output. On their own they won't stop the program running

TRACE TABLES

- A vital skill for understanding program flow and testing the accuracy of an algorithm for logic is called "Tracing Execution".
- Examine a printed extract of program code and running thorough the program.
- Take each line at a time and write out in a trace table the current state of each variable. Noting down any output the program produces.
- Each variable present in the program should have its own column in the trace table.
- A new row should be added under any column if the state of a variable changes.
- Trace tables are an excellent way to track down logic errors in a problem.

BINARY SEARCH

The Algorithm

- Calculate a mid-point in the data set.
- Check if that is the item to be found.
- If not...
  - If the item to be found is lower than the mid-point, repeat on the left half of the data set.
  - If the item to be found is greater than the mid-point, repeat on the right half of the data set.
- Repeat until the item is found or there are no items left to check.

Requirements / Efficiency

- Requires the data set to be in order of a key field.
- Can be done with letters as well as numbers—use alphabetical order
- More efficient than a linear search on average

LINEAR SEARCH

The Algorithm

- Starting from the beginning of a data set, each item is checked in turn to see if it is the one being searched for

Requirements / Efficiency

- Doesn't require the data set to be in order.
- Will work on any type of storage device.
- Can be efficient for smaller data sets.
- Is very inefficient for large data sets

BUBBLE SORT

The Algorithm

- Sorts an unordered list of items.
- It compares each item with the next one and swaps them if they are out of order.
- The algorithm finishes when no more swaps need to be made.
- In effect it "bubbles" up the largest (or smallest) item to the end of the list in successive passes.

Efficiency

- This is the most inefficient of the sorting algorithms but is very easy to implement.
- This makes it a popular choice for very small data sets

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Efficiency

- This is the most inefficient of the sorting algorithms but is very easy to implement.
- This makes it a popular choice for very small data sets

INSERTION SORT

The Algorithm

- The insertion sort inserts each item into its correct position in a data set one at a time.

Efficiency

- It is a useful algorithm for small data sets.
- It is particularly useful for inserting items into an already sorted list.
- It is usually replaced by more efficient sorting algorithms for large data sets.

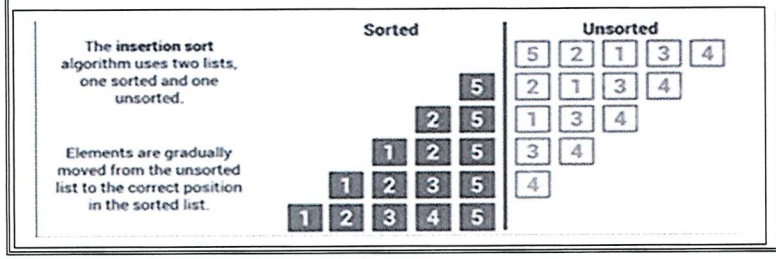
MERGE SORT

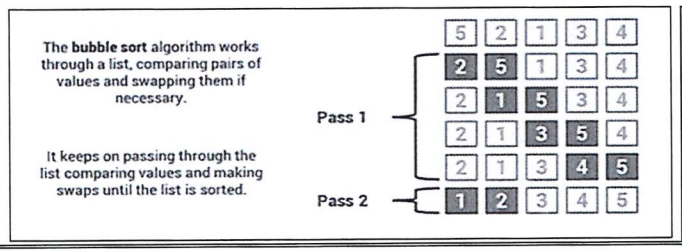
The Algorithm

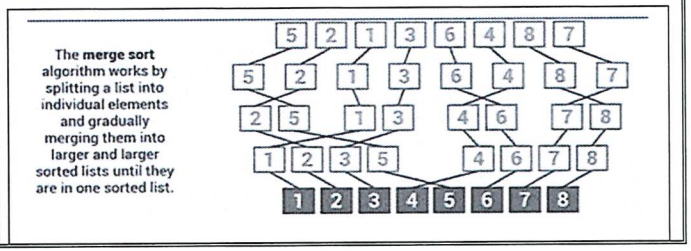
- A very efficient method of performing a sort.
- Uses a divide and conquer method.
- Creates two or more identical sub-problems from the largest problem, solving them individually.
- Combines their solutions to solve the bigger program.
- Data set is repeatedly split in half until each item is in its own list.
- Adjacent lists are then merged back together.

Efficiency

- Works very well for large data sets.







COMPUTING YEAR 10 AUTUMN 2
2.2 PROGRAMMING FUNDAMENTALS

KEY TERMS

Variable	A value stored in memory that can change while the program is running
Constant	A value that does not change while the program is running, and is assigned when the program is designed
Operator	A character that represents an action, e.g. "+" is a mathematical Operator
Assignment	Giving a variable or constant a value
Casting	Converting a variable from one data type to another
Input	A value that is entered into the program after the program has started running
Output	A value that produced by the program and either saved or displayed to the user

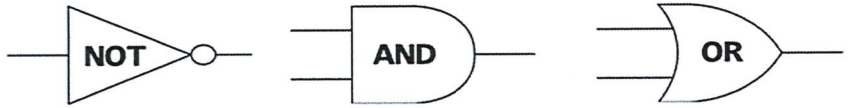
CORRECT USE OF DATA TYPES

Integer	A positive or negative whole number used when arithmetic will be required
Real / Float	A positive or negative decimal number
Character	A single alphanumeric
String	Multiple characters joined together [n.b. use this for credit card numbers]
Others	Some languages have others, e.g. date, picture...

THE THREE BASIC PROGRAMMING CONSTRUCTS

Sequence	Executing one instruction after another
Selection	Program branching depending on a condition
Itteration	sometimes called looping, is repeating sections of code. Condition controlled or count controlled

COMMON BOOLEAN OPERATORS



COMMON OPERATORS

+	Addition	==	Is equal to
-	Subtraction	!=	Is not equal to
*	Multiplication	<	Is lesser than
/	Division	>	Is greater than
^	Exponentiation	<=	Is lesser than or equal to
MOD	Modulus	>=	Is greater than or equal to

BASIC STRING MANIPULATION (GENERAL)

string.length	Obtains the length of the string in characters
string.upper	Converts the string to uppercase
string.lower	Converts the string to lowercase
string.left(n)	Gets the left-most n characters of the string
string.right(n)	Gets the right-most n characters of the string
string.substring(a,b)	Gets b characters of the string starting at position a
ASC(char)	Returns the numerical ASCII value of char

BASIC STRING MANIPULATION (GENERAL)

myFile=open("...")	Open a file
myFile.close()	Close a file
myFile.readLine()	Read a line from a file
myFile.writeLine()	Write a line to a file
myFile=("...")	Create a new file
string.substring(a,b)	Gets b characters of the string starting at position a
A Workflow	myFile = open ("sample.txt") while NOT myFile.endOfFile() print (myFile.readLine()) endwhile myFile.write("Hello") myFile.close()

STORING DATA IN RECORDS

In Text Files
- Stored on the secondary storage (hard disk/SSD/flash).
- Used to store data when the application is closed.
- Useful for small volumes of data. E.g. configuration files.
- Each entry is stored on a new line or separated with an identifier such as a comma or tab.
- Can require a linear search to find/read data which is slow (if there is no order to the data or record structure).
- Structured text files E.g. CSV, XML & JSON are popular for storing and exchanging data between applications

In Arrays and Lists
- Stored in RAM.
- Used to store data when a program is running.
- Useful for small volumes of data an algorithm is using.
- Can be single or multi-dimensional allowing for tables of data to be stored.
- Uses indexes to refer to data items.
- Efficient algorithms or linear searches can be used to find data

In Databases
- Often stored on remote servers.
- Often used to store data shared by many users, e.g. ticket booking system.
- Data is stored in records and fields.
- Uses advanced data structures to store data efficiently.
- Uses very efficient algorithms to search and sort data executed on the servers.
- More secure than text files.
- The order of the fields in the database in independent of the code

Record Structure
- A collection of related fields.
- A field is a variable.
- Each field in a record can have a different data type.
- Note the dot syntax when using records: record<dot>Field e.g. car1.Make

SQL

SELECT	which fields to be returned. * can be used to indicate all fields
FROM	which table. Databases can have more than one table, each with their own unique name
WHERE	records meet a condition. LIKE and % can be used as a wildcard
Example	SELECT name, age, iq FROM person WHERE name LIKE 'FIS%'

ARRAYS

Definition	An array is a series of memory locations – or 'boxes' – each of which holds a single item of data, but with each box sharing the same name. All data in an array must be of the same data type
Use	Indexes usually start at 0 for the first data item (known zero indexed). Arrays may be single or multiple dimensions. Visualise dimensions as a column (single dimension) or table (two dimension) In Memory two dimensional arrays are still stored in a linear fashion

SUB PROGRAMS

Why Use them	Larger programs are developed as a set of sub-programs called subroutines. Structuring code into sub-programs makes the code easier to read and debug. Each sub-program can easily be tested. Sub-programs can be saved into libraries and reused in other programs
Functions	Functions return values and create reusable program components.
Procedures	Procedures create a modular structure to a program making it easier to read. They do not return values

RANDOM NUMBERS

Deterministic	Programs that run on computer systems are deterministic – with exactly the same inputs they should produce exactly the same outputs.
Real World	Randomness is easy to produce in the real world – spinning a wheel, rolling a dice and so on are millennia-old techniques but producing the same randomness in a computer program is actually rather tricky
Computer	Computers do not produce random numbers at all They use complex mathematical techniques to produce a series of numbers that may appear random but are really only an approximation to randomness (called pseudo-random numbers) We refer to them as random numbers anyway

Dance Component Two: Section A Knowledge Organiser

HYPOTHETICAL CHOREOGRAPHY

THE QUESTIONS WILL BE STRUCTURED LIKE THIS

Section A – Knowledge and understanding of choreographic processes and performing skills

You must answer all questions in this section.

37.5% (30 marks) – you should spend about 30 minutes on this section.

You are choreographing **a group dance for two dancers** using the image below as a stimulus.

All answers in questions 1-7 must relate to this stimulus.

What will the question ask?

The question will give you a stimulus. This could be an image, text, an object, and idea.

You will be asked for a dance idea/choreographic intent based on this stimulus.

You will then be asked a range of questions about how you might choreograph a dance based on the dance idea

How do I need to answer?

Short and to the point.

No extended writing in this section.

1-4 mark questions.

Don't waste time on being over creative.

Motif writing can be just two sentences.

TIP! Always link back to the dance idea

Outline a dance idea or theme that you could consider from this stimulus. [1 mark]

Describe a motif you could choreograph for this dance. Your answer should refer to actions, space and dynamics. [3 marks] TIP! Describe this step by step

Give three ways you could develop the motif you have described. [3 mark]

Describe the climax of your dance. Your answer should refer to action, space and dynamics. [3 marks] TIP! Show the build up as well as the climax itself.

Give one way in which this climax communicates your choreographic intent. [1 mark]

Identify the type pof structure that could ne appropriate for your dance. [1 mark]

Give two ways in which this structure links to your chosen dance idea. [1 mark]

ACTION

Travel
Turn
Elevation
Gesture
Stillness
Use of different body parts
Floor work
Transfer of weight

DYNAMICS

Fast/slow
Sudden/sustained
Acceleration/ deceleration
Strong/light
Direct/indirect
Flowing/abrupt

SPACE

Pathways
Levels
Directions
Size of movement
Patterns
Spatial design

RELATIONSHIPS

Lead and follow
Mirroring
Action & reaction
Accumulation
Complement & contrast
Counterpoint
Contact
Formations

CHOREOGRAPHIC DEVICES

Motif and development
Repetition
Contrast
Highlights
Climax
Manipulation of numbers
Unison and canon

STRUCTURE

Binary
Ternary
Rondo
Narrative
Episodic
Beginning/middle/end
Unity
Logical sequence
Transitions

AURAL SETTINGS

Song
Instrumental
Orchestral
Spoken word
Silence
Natural sound
Found sound
Body percussion

PERFORMANCE ENVRIONMENTS

Proscenium arch
End stage
Site-sensitive
In-the-round

PERFORMANCE SKILLS

THE QUESTIONS WILL BE STRUCTURED LIKE THIS

The following questions refer to your knowledge and understanding of performing skills.

What will the question ask?

A range of questions about performance skills.

These could include:

Definitions

Exercises

Rehearsal methods

Advice to dancers

Phrase description

Safe practice

How do I need to answer?

Short and to the point.

No extended writing in this section.

1-4 mark questions.

Phrase descriptions can be just two sentences.

Which of the words below is a **physical skill?** [1 mark]

Alignment **Turn** **Mobility**

Define the physical skill you identified [1 mark]

Describe a short movement phrase that includes the physical skill identified. Your answer should refer to action, space and dynamics. [3 mark]

What advice would you give to a dancer that needs to improve their musicality. [1 marks]

Place a tick in the box next to the correct definition of **projection** in performance [1 mark]

The overall shape and structure of the dance. ☐
The energy the dancers uses to connect with and draw in the audience. ☐
The use of eyes to enhance performance. ☐
Dance that tells a story. ☐

Outline **one** rehearsal method that would improve projection. [1 mark]

PHYSICAL SKILLS

Posture
Alignment
Balance
Coordination
Control
Flexibility
Mobility
Strength
Stamina
Isolation
Extension

EXPRESSIVE SKILLS

Projection
Focus
Spatial awareness
Facial expression
Phrasing
Musicality
Sensitivity to other dancers
Communication of choreographic intent

TECHNICAL SKILLS

Action
Space
Dynamics
Relationships
Timing
Rhythmic content
Moving in a stylistically accurate way

MENTAL SKILLS DURING PERFORMANCE

Movement memory
Commitment
Concentration
Confidence

MENTAL SKILLS PREP FOR PERFORMANCE

Systematic repetition
Mental rehearsal
Rehearsal discipline
Planning for rehearsal
Response to feedback
Capacity to improve

SAFE PRACTICE DURING PERFORMANCE

Safe execution
Appropriate dancewear, including:
Footwear
Hairstyle
Absence of jewellery

SAFE PRACTICE PREP FOR PERFORMANCE

Warming up
Cooling down
Nutrition
Hydration

Dance Component Two: Section C Knowledge Organiser

A Linha Curva

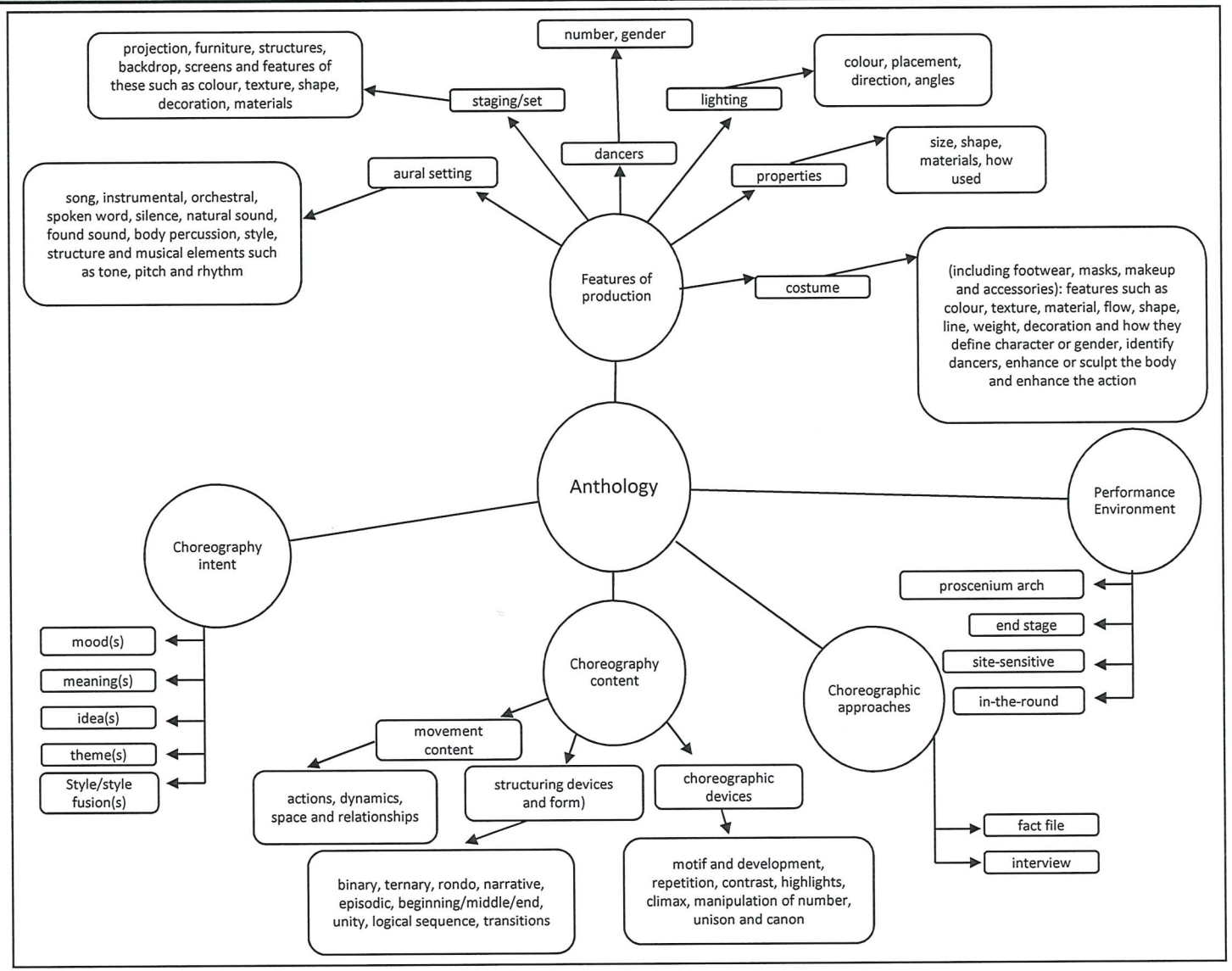
Artificial Things

Emancipation of Expressionism

Infra

Shadows

Within Her Eyes



Drama: Mock Exam Knowledge Organiser

Stimulus

Brief	Performers and designers often need to respond to a given brief for performance. See page 1 in your revision guide.
Workshop Performance	A workshop performance is a simple, stripped-back performance of a play. See page 1 in your revision guide.
Stimulus	Something that inspires ideas and thought processes. See page 9 in your revision guide.
Target Audience	Performers and designers need to be aware of their target audience, both when developing ideas and in performance. See page 3-4 in your revision guide.
Performance Space	The type of performance space is considered early on when creating a performance. See page 5 and 6 in your revision guide.
Influences	Performance can be influenced by the skills and techniques of experienced practitioners. See page 22 in your revision guide.
Skills and Creative Intentions	The development of ideas for a performance is informed by the skills of the performers and their creative intentions. See page 20 -21.
Style and Genre	The term style in performing arts refers t the characteristics of a performance piece or genre. See page 8 and 17 in your revision guide.
Resources	Performers need to plan and manage the resources needed for the rehearsal process and performance. See page 7.
Starting Point	Responding to a brief and stimulus involves discussion and practical exploration activities. See page 2 and 10-14 in your revision guide.

Style / Skills

Role	Performers must prepare for rehearsals and refine, vocal, physical and interpeetive skills so they can communicate with an audience. See page 30-35 in your revision guide.
Skills for Target Audience	Performing arts practitioners often create work intended to appeal to a wide audience and they require a range of skills. See page 28-29 in your revision guide.
Explorative Strategies	An explorative strategy is a technique to explore and deepen understanding of the drama you create. Using a range of explorative strategies in the rehearsal room gives you a box of tricks to experiment with. See page 36 in your revision guide.
Stylistic features	To develop style and genre to communicate creative intentions, performers need to know the rules and make performance decisions. Stylistic features are the key conventions is a style / genre and inform the way in which you present your performance. See page 39-41 in your revision guide.
Individual Preparation	Performers and designers need to develop individual skills, techniques and personal management skills to take part in the rehearsal process. See page 42.
Group Rehearsals	Group rehearsal skills are an essential part of the rehearsal process and performance process. See page 43 - 48.

Reflection

Process	After a performance, it is important to reflect on the working process leading up to it. Performers and designers do a lot of work to produce a live performance from a stimulus and idea. See page 49 in your revision booklet.
Outcome	After a performance, it is important to evaluate audience feedback and reflect on key areas of your contribution to the live workshop performance. Please see pages 50—51 in your revision booklet.

SMART targets

Sometimes people's goals are too vague or distant. Actors lack commitment or get demotivated because their goals appear too difficult to reach. Setting SMART goals can make that goal seem - and be - more achievable. Targets provide focus or act as stepping stones towards the final goal.

Goals that are SMART are:

Specific – state exactly what will need to be done
Measurable – clear what success will look like
Accepted – decided on by all participants in the process
Realistic – know it is practical – steps *can* be taken to do it
Time bound – state when it will be achieved

Drama: Mock Exam Knowledge Organiser

AO1 Understand how to respond to a brief

Sentence Starters
We were commissioned by... to create work that...
The concept of our performance is...
Our performance will be aimed at...
We chose this target audience as the aim of our performance is to...
We have decided that our piece will be in the style of... as this will allow us...
Practitioners that have inspired our ideas are... because...
Skills I am able to contribute to my group are...
Other people in my group can...
Our creative intention is to...
Starting points that we have explored so far are...
This gave us the idea to...
Ideas that I have contributed personally are...
Other ideas from my group that I think would also work are...
In future rehearsals we plan to develop our performance by using...
The resources we will need are...
Overall, our initial idea meets the requirement of the brief because we explore...
The ideas allow us to [purpose] the audience about...
They link to [STIMULUS] because...

AO2 Select and develop skills and techniques in response to a brief

Sentence Starters
The role I took in the group is...
A performer's role is to...
Skills I needed to develop in my action plan were... because...
I overcame this by...
As a group, we have developed our skills for a ... audience. We had to consider using...
In rehearsals, we used explorative strategies such as...
To perform in the style of... I had to focus on my... I did this by...
The skills that my role require are... I plan on... in order to ensure the best outcome in my performance.
Techniques I should rehearse are... because...
In preparation for the performance, I need to ensure that... in order to keep to this I will...
Workshops that have developed our performances are...
This matches the stimulus / brief because...
In group rehearsals I need to...
When working in our group, I have contributed by...
In future rehearsals we need to consider...
This will develop our performance because...
We plan to do this...

AO4 Evaluate the development process and outcome in response to a brief

Sentence Starters
In rehearsals, we generated ideas by...
The target audience we chose was... because...
The structure/genre/style we use was... because...
The physical skill I used was...
The vocal skills I needed to use were...
I was / was not successful when using [skill] because...
Techniques to develop my skills that I found useful were...
I improved my skills by...
In order to keep a track of rehearsals I...
Ideas I contributed were...
Other ideas were...
They were successful because...
Ideas that did not work were...
I found it easy / difficult to communicate ideas to my group because...
If I repeated the process, I would...
I believe that our intentions were / were not clear because...
Something that worked really well in our performance was...
The reaction from the audience at... was surprising / not expected because...
Things that could have been clearer were...
If I were to revisit this performance, I would...

Autumn English Literature JEKYLL AND HYDE Year 10

Characters

Gabriel Utterson–
Jekyll's friend. Lawyer. Curious about Hyde and his relationship to Jekyll.
"inclined to help rather than to reprove"

Dr Henry (Harry) Jekyll–
Scientist and wealthy man. Interested in the duality of man.
"I learned to recognise the thorough and primitive duality of man;"

Edward Hyde–
Cruel man who attacks the weak and innocent.
"Edward Hyde, alone, in the ranks of mankind, was pure evil."

Dr Hastie Lanyon–
Was friends with Jekyll but stopped speaking to him when they disagreed.
"I saw what I saw… my soul sickened at it…My life is shaken to the roots."

Why did Stevenson write the novella?

- To show his audience that evil exists in us all.
- To highlight the hypocrisy of society
- To warn society of the dangers science can present.
- To explore the intricacies of the human mind.

Themes

Duality

Reputation

Secrecy

Science

Key vocabulary:

1. **Deception –** lying or hiding the truth
2. **Dilemma –** choosing between difficult options
3. **Hierarchy –** system of ranking in society
4. **Dogmatic –** expressing opinion as the truth
5. **Redemption–** being saved from evil
6. **Repentant –** feeling regret or remorse
7. **Inevitability –** certainty of events
8. **Turmoil –** state of great uncertainty
9. **Conscience –** inner voice or guide guiding behaviour to right or wrong
10. **Justice –** morally correct or fair

Literary References:

In the novel, Stevenson references these literary texts. Knowing what he is talking about will help your understanding

Cain's heresy- In Judeo-Christianity, in the Old Testament when God asks Cain where his murdered brother is, Cain denies his responsibility, replying 'Am I my brother's keeper?'

Damon and Pythias- *in Greek legend, Damon as Pythias are a symbol of perfect friendship: when Pythias is condemned to death, Damon offers to take his place in prison, so that Pythias can return home one last time. Damon stakes his life on Pythias coming back, which he does.*

Dr Fell– *Refers to a nursery rhyme: 'I do not like thee/Doctor Fell,/The reason why – I cannot tell;/But this I know, and know full well,/I do not like thee Doctor Fell.'*

Chapters

Story of the Door:
Search for Mr Hyde:
Dr Jekyll was Quite at Ease:
The Carew Murder Case:
Incident of the Letter:
Remarkable Incident of Dr Lanyon:
Incident at the Window:
Dr Lanyon's Narrative:
Henry Jekyll's Full Statement of the Case:

Key Quotes:

"man is not truly one, but truly two."
Henry Jekyll

"Jekyll had more than a father's interest; Hyde had more than a son's indifference."

"all human beings, as we meet them, are commingled out of good and evil."

"I stood already committed to a profound duplicity of life."
Henry Jekyll

"If he be Mr Hyde… I shall be Mr Seek."
Gabriel Utterson

"If I am the chief of sinners, I am the chief of sufferers also."
Henry Jekyll

Autumn English Literature JEKYLL AND HYDE Year 10

Paper 2 Section A
'Jekyll and Hyde'
a) Extract Analysis (20)
b) Whole text response (20)
40 marks

a) Extract analysis
- ✓ Analysis of language, form and structure in the extract
- ✓ Explanation of the effect on the reader
- ✓ Relevant terminology is used to develop ideas

b) Whole text response
- ✓ Personal response, fully related to the text
- ✓ Critical style and interpretation
- ✓ Well-chosen references to support a range of points

Analysis: a detailed examination of the parts of something
Evaluation: making of a judgment about the amount, number, or value of something

Question style:
a) 'Explore how Stevenson presents … in the extract'
b) 'Explain why… is important elsewhere in the novel.'

What?	What is the writer trying to tell us about the character/theme/setting?	*Significantly Hyde is presented as... Stevenson notably presents repression as … and …*
How?	How do they use language/structure to do this? How do key words/phrases show this?	*The adjectives/noun/verb/phrase/image … This suggests/implies/indicates/demonstrates...*
Why?	Why are they doing this? Why did they choose that language?	*Stevenson wants to establish the significance of … It can be seen that/it might be thought that/some readers might think*

The reader feels: empathy, sympathy, resentment, indignation, respect, disapproval, horrified, anticipation, admiration, relief, apprehension, critical, disappointment, anxious, disillusioned, impatient.

Terminology:
1. **Epistolary novel –** story told through letters
2. **First-person narrative –** writing from an individual view 'I'
3. **Third-person narrative –** told by a narrator 'he'
4. **Zoomorphism –** giving humans animal qualities
5. **Juxtaposition –** two things placed together for contrasting effect
6. **Pathetic fallacy –** when the weather reflects the mood
7. **Sibilance –** repetition of the 's' sound – creates a sense of evil
8. **Gothic –** Genre of writing that includes: isolation, supernatural and fear.
9. **Personification –** giving human qualities to an inanimate object.
10. **Symbolism –** images or items that represent a theme or idea

Adverb

Inherently Intrinsically Innately Naturally [In a way that is characteristic or natural]	Significantly Crucially Notably Particularly [In a way that is important/ needs to be known]	Undoubtedly Undeniably Unquestionably Indubitably [In a way that is true/ can't be argued]	Arguably Debatably Probably Potentially Possibly [In a way that could be true]

Expresses a clear evaluation of the writer's ideas

verb

exaggerates intensifies amplifies magnifies emphasises hyperbolises accentuates	creates crafts engineers constructs composes establishes portrays	represents exemplifies typifies embodies epitomises exhibits manifests

Shows that you are considering the text as a construct

adjective

bitter resentful disgruntled discontented spiteful exasperated displeased	subtle crafted precise skillful adept expert masterful	bleak harsh grim ominous shocking gruesome gloomy	angry outraged aggrieved incensed infuriated enraged indignant	optimistic hopeful jovial amiable affable genial exuberant

Demonstrates a deeper understanding of the ideas

Autumn English Language year 10

Writing: composing a text for a purpose

Paragraphing:

Always start a new paragraph whenever you change:

- Time
- Place
- Topic
- Person

Remember TiPToP

Sentence types:

Declarative - make statements (most likely to be fact or opinion statements)
Exclamative - express emotion (most likely to end with an exclamation mark)
Imperative - give commands (include imperative verbs)
Interrogative - ask questions (end with a question mark)

Punctuation

. **Full stop –** ends a sentence
, **comma –** separates ideas
: **Colon –** introduces a list
; **semi-colon –** separates clauses
! **Exclamation mark –** adds emphasis
? **Question mark -** interrogative
" " **Speech marks –** indicates speech
- **Hyphen –** shows connection
... **Ellipsis –** creates mystery/intrigue

Word bank

Ways to start sentences

Start your sentence with an 'ed' word: Alarmed, Angered, Abandoned, Astonished, Bewildered
Start your sentence with an 'ing' word: Hiding Jumping Knowing Riding Praying Thinking Stopping
Start your sentence with an adverb: Accidentally, Bravely, Cheerfully, Defiantly, Fortunately, Menacingly
Adverbial phrase for when something happens: After running up the hill, Before charging into battle,
Adverbial phrase for how something happens: With her feet squelching in the mud, Jane trudged...
Adverbial phrase for where something happens. Around Behind Beneath Beside In On Over Past
Start with a simile. (A simile compares two things): As dark as... As busy as... As clear as...

A drop in clause adds in extra information: The dragon, **who had fearsome talons**, flew off into the sky.
The brave knight, **who was wearing a coat of armour**, strode through the castle doors.

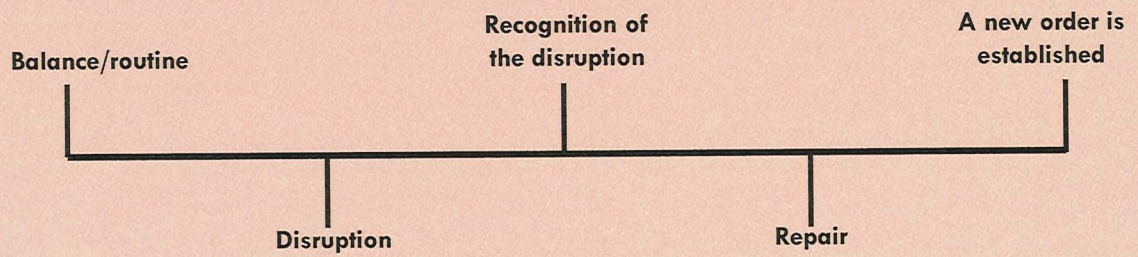
Word types

Noun – Person, place, thing
Pronoun – In place of a noun 'you'
Verb – an action or state
Adjective – describes a noun
Adverb – describes a verb
Preposition – shows the relationship between objects
Determiner – used in front of a noun to show the type 'the' 'a'
Conjunctions – joining words

Top tips

- Remember that all sentences and names start with a **capital letter.**
- Always write in complete sentences.
- Include descriptive detail to set the scene for the reader.
- Use a variety of sentence starters and vocabulary.
- Write with a range of punctuation.

Structuring a story (Todorov's theory of equilibrium)



Common Errors

- **There/their/they're** – there= place, their=belongs, they're=they are.
- **Which/witch** – which=choice, witch=supernatural
- **To/too/two** – to=the direction, too=a lot, two=2

Food and Nutrition

Food poisoning

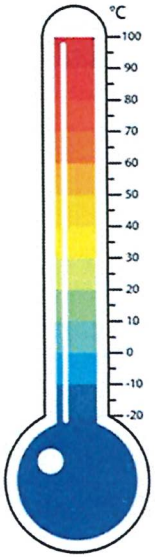
Food poisoning can be caused by:

- **Bacteria**, e.g. cross-contamination from unclean hands, dirty equipment, or bacteria already present in high risk foods (e.g. meat, fish, eggs, dairy).
- **Physical contaminants**, e.g. hair, plasters, packaging etc.
- **Chemicals**. E.g. cleaning chemicals such as washing up/sanitiser.

Bacterial contamination is the most common cause of food poisoning.
Micro-organisms occur naturally in and around vegetables, fruit, animals, people, water, soil and in the air.
Most bacteria are harmless but a small number can cause illness.
Harmful bacteria are called **pathogenic** bacteria.
The process of food becoming unfit to eat through oxidation, contamination or growth of micro-organisms is known as food spoilage.

Food Temperatures

To reduce the risk of food poisoning, good temperature control is vital.



- **100°C** – Water boils. All bacteria killed.
- **75°C** – High risk food (e.g. meat and fish) needs to reach this temperature for bacteria levels to be safe before eating.
- **5-63°C** – The **DANGER ZONE**. Harmful pathogenic bacteria can rapidly grow between these temperatures.
- **0-5°C** – Fridge temperature. Make sure foods are cool before putting into the fridge to stop going into the Danger zone
- **-18°C** – Freezer temperature. Harmful bacteria is dormant. This means it hasn't been killed but cannot grow either.

Secondary Processing: Cheese making

Non-Pathogenic Bacteria - These micro-organisms are NOT HARMFUL. They are used to help produce familiar food products like cheese, milk & yogurt.





1. **The milk is pasteurised**. The milk is heated to 72˚C and then cooled to 30˚C in a large tank. Pasteurisation kills the **pathogenic** bacteria that can be found in raw, fresh milk from cows.
2. **A special bacterial culture is added to the milk.** The bacteria turns the **lactose sugar** in the milk in **lactic acid.** The lactic acid helps to **coagulate** the proteins in the milk and add flavour and texture to the cheese.
3. **An enzyme called rennet is added.** The rennet **coagulates** & separates the milk into **curds** and **whey**.
4. **Cutting the curds.** The **curds** are cut up finely using special knives. This helps to release more of the liquid called **whey.**
5. **Draining off the liquid whey.** The whey is collected and used in other food products like bread, pastries and biscuits.
6. **Drying the curd**. The **curd** is stacked and turned regularly. Stacking helps to drain off more whey.
7. **Milling the curd.** The **curds** are put through a mill to be cut into small pieces. Milling helps the **texture** of the cheese.
8. **Pressing the cheese.** Salt is added and the **curds** are pressed and shaped in a suitable container. Salt adds **flavour** and helps **preserve** the cheese. Pressing makes the cheese solid.
9. **Ripening & maturing the cheese.** The **bacteria** in the **culture** at the beginning now helps to **ripen** and **flavour** the cheese. The cheese is stored in a cool place to control the growth of moulds and bacteria that *may* grow on it.

The non pathogenic bacteria are used to ferment foods like cheese and yogurt to give them flavour and texture. Pathogenic bacteria contains harmful bacteria which is found in high risk foods like raw meat and fish. If they are not heated to the correct temperature (75C), they can cause food poisoning.

Yeast is a **biological raising agent** used in bread making which helps the bread to rise.
Biological = A living organism (a cell)
Raising Agent = A substance or method that helps foods to **rise**

When the yeast is put into **warm** water (**moisture**), given sugar (**food**) and given **time**, it produces **carbon dioxide** & **alcohol.**
This process is called FERMENTATION.

Food Spoilage

When you crush, bite, cut, grate or peel certain fruits and vegetables (e.g. apples, avaocados, bananas), they can develop a brown, grey, black discolouration. When the cell wall of the plant cells in these fruits and vegeatbles are broken and exposed to the air (**oxidise**), the enyzymes turn a brown colour. This can be stopped by using an acid (e.g. lemon) or using a cooking method known as '**blanching**'.

Food and Nutrition

Carbohydrates

Carbohydrates are one of the 3 MACRONUTRIENTS.
They have 2 functions for our diet:

1. They provide us with ENERGY
2. They provide us with FIBRE

There are two groups of carbohydrates:

Sugars	Complex Carbohydrates
Monosaccharides Disaccharides	Polysaccharides

50% of our daily diet should be made up of carbohydrates each day (preferably complex carbs)

Deficiency = Weight loss, lack of energy, weakness.
Excess = Obesity, Type 2 Diabetes, tooth decay.

Protein

Protein is one of the 3 MACRONUTRIENTS.
They have 3 functions for our diet:

1. They help the body to GROW.
2. They help the body to REPAIR itself.
3. They provide us with ENERGY.

Proteins are made up 'building blocks' called **AMINO ACIDS**.

Some protein foods contain all of these amino acids (HBV); Meat, fish, eggs, cheese, dairy, soya.

Some protein foods do not contain all amino acids (LBV); Beans, seeds, nuts, cereals.

Deficiency = Lack of growth, poor skin and nails
Excess = Liver and kidneys could be under pressure

Fats

Fats are one of the 3 MACRONUTRIENTS.
They have 4 functions for our diet:

1. They provide us with ENERGY.
2. They help to INSULATE the body.
3. They PROTECT bones & kidneys
4. They give fat soluble vitamins (A,D,E & K)

There are two main types of fat:

Saturated Fat	Unsaturated Fat
These fats usually come from ANIMAL sources. e.g. meat, butter, lard	These fats usually come from PLANT sources e.g. olive oil, vegetable oil, nuts, avocado

Deficiency = Lack of energy, feeling of cold, no store for fat soluble vitamins
Excess = Obesity, too much saturated fat can lead to coronary heart disease (CHD)

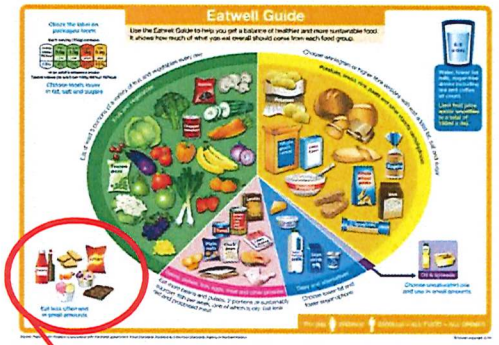
The Eatwell Guide

The Eatwell Guide is a recommendation by the government to help us follow a healthy diet. It shows the proportions of how much of each food group we need to eat each day to a achieve a well-balanced and healthy diet.

Planning balanced meals

Whenever you are planning meals for people, there are a few considerations to ask and think about;

- Likes and dislikes of foods
- Do they have food allergies or intolerances? (e.g. wheat or dairy)
- Do they follow a religious diet?
- Do they have a health condition?
- Do they need help in buying, preparing or cooking food?
- What type of meal would suit their lifestyle? (e.g. are they active or not)
- How much time is available to cook the food?
- How much will the food cost?
- Which foods are available to buy?
- Are the foods in season?
- Is the meal for everyday or a special occasion?



The Eatwell guide recommends;
Sweet, salty and fatty foods such as crisps, chips, cakes and biscuits should be eaten ***less*** often and in ***small*** amounts!

Vitamins & Minerals

Vitamin A
Vitamin B
Vitamin C
Vitamin D
Vitamin E
Vitamin K

Vitamins are found in a wide range of **unprocessed** plant and animal foods. This means they have not been cooked or had anything added to them.

If we are **deficient** (not getting enough) in certain vitamins and minerals we can become unwell.

Fatigue, heart disease, high blood pressure & some cancers are just some of the problems that can occur.

Minerals

Calcium
Iron
Sodium
Iodine

Just like vitamins, **minerals** help your body grow, develop, and stay healthy.

The body uses minerals to perform many different functions from building strong bones to transmitting nerve impulses.

Some minerals are even used to make hormones or maintain a normal heartbeat.

De la ville à la campagne *From town to countryside*

Local area, Holiday, and Travel

Où habites-tu?
Where do you live?

En ce moment, ma famille et moi habitons dans un assez petit village qui s'appelle Tongham au sud-ouest de Londres entre des forêts, près des fermes et de beaux champs. Quand j'étais petit·e, j'habitais en Edimbourg qui est la capitale d'Écosse. Personnellement, je pense que c'était mieux car ce n'était pas si surpeuplé.

Qu'est-ce qu'il y a dans ta région ?
What is there in your region ?

Quant à moi, il y a beaucoup de choses à faire dans ma région. En premier, il y a des collines et des forêts où l'on peut faire des randonnées ou faire du camping. De plus, il y a des grandes villes comme Guildford où l'on peut faire du shopping, manger dans des restaurants, ou visiter des monuments historiques.

Qu'est-ce qu'on peut faire dans ta région ?
What can you do in your region?

Dans le passé il n'y avait pas grand-chose à faire à cause de la crise économique mais maintenant, il y a plusieurs choses à faire. Dans ma ville, il y a des jardins publics où l'on peut jouer avec des amis cependant je ne peux pas aller ni au cinéma ni au théâtre parce qu'il n'y en a pas du tout dans mon village. Quel dommage ! Tout cela me rend triste

Le climat est comment ?
What is the climat like ?

En général, ici le climat est assez sec, surtout en été quand il y a souvent des canicules. En automne, il fait assez beau mais quelquefois il y a beaucoup du vent et il pleut. En hiver, il fait super froid et il gèle – c'est horrible ! Au printemps, il fait un temps du canard, ce qui me gêne le plus car j'adore être en plein air avec mes copains.

Quels sont les avantages et les inconvénients de ta région ?
What are the advantages and disadvantages of your region ?

D'un côté, on peut aller en ville pour acheter des vêtements ou de la nourriture, visiter des églises, des mosquées ou des temples, aller aux restos ou centre de loisirs avec ses copains. Malheureusement il y a beaucoup de pollution surtout dans les fleuves et des lacs. C'est mauvais pour les animaux qui y habitent et je trouve ça déprimant.

Qu'est-ce que tu as fait récemment dans ta ville?
What have you recently done in your town?

Récemment, je suis allé·e à Camberley avec mes potes et nous avons passé une super journée ensemble. Pour commencer, on a fait du shopping car il y a beaucoup de magasins là-bas. Puis, on a mangé dans un restaurant italien et la nourriture était tellement bonne. Finalement, on a regardé un film au ciné – c'était assez choquant mais divertissant en même temps.

Qu'est-ce que tu aimerais changer dans ta ville ?
What would you like to change in your town?

Pour être honnête, je changerai beaucoup de choses dans ma ville car il y a des problèmes partout. Premièrement, je voudrais améliorer le transport en commun car ce n'est pas suffisant. Du coup, il y a trop de voitures qui contribuent à la circulation. Deuxièmement, j'aimerais construire plus d'espaces vertes où l'on peut se détendre et profiter de la nature parce que c'est nécessaire pour la santé.

Quels sont les avantages d'habiter en ville ou à la campagne?
What are the advantages of living in town or in the country?

À la campagne, on peut vivre en tranquiilité car il y a très peu de circulation, de pollution, de bruit en général. Ceci dit, il n'y a rien pour les jeunes donc ça pourrait être très ennuyeux. Par contre en ville il y a plus de choses à faire mais c'est plus bruyant et sale que la campagne.

Comment vas-tu à l'école?
How do you go to school?

Normalement quand il fait beau, je vais à l'école à vélo avec mes copains car c'est rapide et ça m'aide à rester en bonne forme. Quand il pleut ou quand il y a beaucoup du vent, je vais en bus car c'est plus facile.

Que feras tu ce week-end ?
What will you do this weekend?

Ce week-end, je resterai chez moi le samedi et je ferai la grasse matinée car je serai sans doute épuisé après une semaine à l'école. L'après-midi, j'irai au centre de loisirs avec ma famille pour jouer au badminton ensemble. Ce sera très amusant ! Le soir, on fera un barbecue s'il fait beau. Sinon, on mangera dans un restaurant chinois pour fêter l'anniversaire de mon beau-père.

Question you will ask:

Fancy Phrases:

PERFECT TENSE (*"has done/did"*)

Start with the present tense of *avoir/être*, then add the past participle of the second verb:

-er	-ir	-re
Remove **–er** Add **-é**	Remove **-r**	Remove **–re** Add **-u**
jouer → (j'ai) joué	finir → (j'ai) fini	vendre → (j'ai) vendu

VERBS USING ÊTRE e.g. je suis allé(e)

monter entrer sortir venir aller naître
partir descendre arriver tomber rester
mourir retourner ***(and all reflexive verbs)***

The past participle for these verbs must agree with the subject in gender and number:

je suis allé (m) *je suis tombée* (f)
on est entrés (mpl) *on est entrées* (fpl)

PRESENT TENSE (*"does/is doing"*)

Remove the -er/-ir/-re and add these endings:

	jouer	finir	vendre
je	joue	finis	vends
tu	joues	finis	vends
il/elle/on	joue	finit	vend
nous	jouons	finissons	vendons
vous	jouez	finissez	vendez
ils/elles	jouent	finissent	vendent

ÊTRE

je suis / tu es / il est / nous sommes / vous êtes / ils sont

AVOIR

j'ai / tu as / il a / nous avons / vous avez / ils ont

SIMPLE FUTURE TENSE (*"will/shall do"*)

Add these endings to the infinitive:

	jouer	finir	vendr~~e~~
je	jouerai	finirai	vendrai
tu	joueras	finiras	vendras
il/elle/on	jouera	finira	vendra
nous	jouerons	finirons	vendrons
vous	jouerez	finirez	vendrez
ils/elles	jouer**ont**	finir**ont**	vendr**ont**

IRREGULAR STEMS

être (ser-) *avoir* (aur-) *faire* (fer-)
venir (viendr-) *savoir* (saur-) *aller* (ir-)
devoir (devr-) *pouvoir* (pourr-) *voir* (verr-)

IMPERFECT TENSE (*"was doing/used to do"*)

Remove *–ons* from the *nous* form of the present tense, add these endings (*ais/ais/ait/ions/iez/aient*)

	jouer	finir	vendre
je	jou**ais**	finiss**ais**	vend**ais**
tu	jou**ais**	finiss**ais**	vend**ais**
il/elle/on	jou**ait**	finiss**ait**	vend**ait**
nous	jou**ions**	finiss**ions**	vend**ions**
vous	jou**iez**	finiss**iez**	vend**iez**
ils/elles	jou**aient**	finiss**aient**	vend**aient**

NEAR FUTURE TENSE (*"is going to do"*)

Use the present tense of *aller* followed by the infinitive:

je	**vais**
tu	**vas**
il/elle/on	**va**
nous	**allons**
vous	**allez**
ils/elles	**vont**

jouer
finir
vendre
être
aller
vouloir
etc.

CONDITIONAL TENSE (*"would do"*)

Begin with the future stem, add imperfect endings:

	jouer	finir	vendr~~e~~
je	jouer**ais**	finir**ais**	vendr**ais**
tu	jouer**ais**	finir**ais**	vendr**ais**
il/elle/on	jouer**ait**	finir**ait**	vendr**ait**
nous	jouer**ions**	finir**ions**	vendr**ions**
vous	jouer**iez**	finir**iez**	vendr**iez**
ils/elles	jouer**aient**	finir**aient**	vendr**aient**

IRREGULAR STEMS

Same as for the simple future

EXTRA MARKS: USE WITH THE IMPERFECT TENSE

Si j'avais le temps, j'irais... (If I had time, I'd go to...)

PLUPERFECT TENSE (*"had done"*)

Very similar to the perfect tense, except you start with the *imperfect* tense of auxiliary verbs *avoir/être:*
e.g. j'*avais* joué, il *avait* fini, nous *étions* allés, elles s'*étaient* brossées les dents

Year 10 Geography Autumn Term
Tectonic Hazards

AQA

What is a Natural Hazard

A natural hazard is a natural process which could cause death, injury or disruption to humans, property and possessions.

The structure of the Earth

The Crust	Varies in thickness (5km to 100km). Made up of several large tectonic plates.
The Mantle	Thickest layer (2,900km). Heat and pressure cause the rock is in a liquid state (magma). Movement in the magma is caused by convection currents.
The Inner and Outer Core	Hottest layer (5000 degrees C). Made of iron and nickel and is 4 x denser than the crust. Inner core is solid whereas outer core is liquid.

Causes of Earthquakes

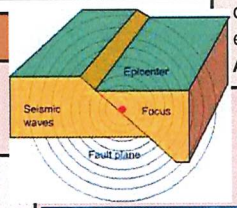
Earthquakes are caused when two plates are moving due to **convection currents** in the mantle. The plates become **locked** causing **friction** to build up. From this **stress**, the **pressure** will eventually be released, triggering the plates to move into a new position. This movement causes energy in the form of **seismic waves**, to travel from the **focus** towards the **epicentre**. As a result, the crust vibrates triggering an earthquake.

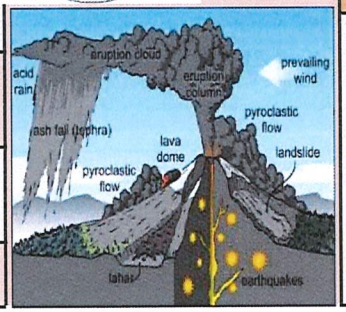
The point directly above the focus, where the seismic waves reach first, is called the **EPICENTRE**.

The point at which pressure is released is called the **FOCUS**.

Volcanic Hazards

Ash cloud	Small pieces of pulverised rock which are thrown into the atmosphere.
Gas	Sulphur dioxide, water vapour and carbon dioxide are released.
Lahar	A volcanic mudflow which usually runs down a valley side on the volcano.
Pyroclastic flow	A fast moving current of super-heated gas and ash (1,000°C). They travel at over 100 mph.
Volcanic bomb	A thick (viscous) lava fragment that is ejected from the volcano.





Convection Currents

The crust is divided into tectonic plates which are moving due to convection currents in the mantle.

1	Radioactive decay of some of the elements in the core and mantle generate a lot of heat.
2	When lower parts of the mantle molten rock (magma) heat up they become **less dense** and **slowly rise**.
3	As they move towards the top they cool down, become **more dense** and **slowly sink**.
4	These **circular movements** of semi-molten rock are **convection currents.**
5	Convection currents create **drag** on the base of the tectonic plates and this causes them to move.

Types of Plate Margins

Destructive Plate Margin

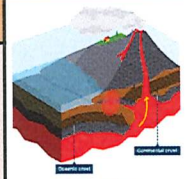
When the denser ocean plate subducts beneath the continental plate, friction causes it to **melt and become molten magma**. The magma forces its ways up to the surface to form a volcano. This margin is also responsible for **devastating earthquakes**.

Constructive Plate Margin

Here two plates are **moving apart** causing new magma to reach the surface through the gap. Volcanoes formed along this crack cause a submarine mountain range. A good example is the **Mid Atlantic Ridge**.

Conservative Plate Margin

A conservative plate boundary occurs where plates **slide past each other** in opposite directions, or in the same direction but at different speeds. This is responsible for earthquakes such as the ones happening along the **San Andreas Fault, USA**.



Why do people live in areas at risk from tectonic hazards?

Many people live close to volcanoes or in areas vulnerable to earthquakes.

WHY?

- They've **always** lived there so moving means leaving family, jobs etc.
- In HICs **monitoring** and **protection** can mean the risk is less.
- The **minerals** from volcanic **ash** make volcanic **soil** very **fertile** attracting **farmers.**
- Volcanoes are **tourist attractions,** many people nearby work in the tourist industry **e.g. Mount Etna** receives hundreds of thousands of visitors when erupting.

Managing Tectonic Hazards

Monitoring	Prediction
Earthquakes: seismometers and **lasers** monitor earth movement. Can give **small** but vital amount of **warning** before a **large earthquake** occurs.	**Earthquakes: cannot** reliably be **predicted**. But scientist can **forecast where** they may occur by monitoring the movement of plates.
Volcanoes: scientists can monitor signs that tell us a **volcano** may **erupt** e.g. **small earthquakes,** escaping **gas,** changes in the **shape** of the volcano.	**Volcanoes: can be predicted** if scientists **monitor** volcanoes closely using **thermal imaging.**
Planning	**Protection**
Future developments can **avoid high-risk areas.** **Emergency Services** can prepare by **practicing** rescuing people from collapsed buildings.	**Earthquakes:** new buildings can use reinforced concrete that **absorb** earthquake energy. **Cross-bracing.** Automatic **shut-off valves** for gas.
People can be **educated** so they know what do to do. Governments plan **evacuation routes** to get people away quickly & safely.	**Volcanoes:** buildings can be **strengthened** so they are less likely to collapse under weight of ash. **Trenches** built to divert lava– not successful.

LIC Earthquake Case Study: Nepal 2015

CAUSES

On a **destructive** plate margin the **Indo-Australian** plate is being subducted underneath the **Eurasian** plate. On **25th April 2015** a **7.8** magnitude earthquake occurred.

EFFECTS/IMPACTS

P: 9,000 deaths, **22,000** injuries, **$5billion** worth of damage, **2 million** left without water.
S: 4 million homeless, the earthquake triggered **avalanches** on **Mt Everest** killing **18 people.** Lack of clean water caused a **typhus** outbreak.

RESPONSES

I: India & China sent teams to rescue trapped people, people tried to recover the dead & treat injured but **damaged roads** made this hard, **130,000** emergency shelters set up by **Red Cross**
L-T: World Bank gave **$500million** for earthquake-proof buildings, repair roads. **2 years on** not all water is back.

HIC Earthquake Case Study: New Zealand 2016

CAUSES

A **destructive margin** and **conservative margin** the **Pacific Plate** is subducting beneath the **Australian** plate to the north and sliding past it to the south. On **14th November 2016** this caused a **7.8** magnitude.

EFFECTS/IMPACTS

P: 2 deaths, 50 injured, **$8.5billion** worth of damage, **60** people needed emergency housing
S: 100,000 landslides, **10** farms evacuated, **tsunami** generated with waves around **5m** leaving debris up to **250m** inland.

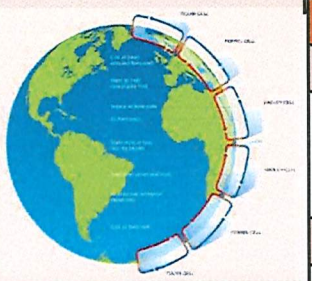
RESPONSES

I: Tsunami warning quickly issued, **power restored** within a few hours, **hundreds** places in emergency shelters.
L-T: $5.3million funding provided by **Kaikoura District Council** to help with rebuilding. New water pipe built earthquake proof, roads/rail reopened in **2 years.**

Global Pattern of Air Circulation

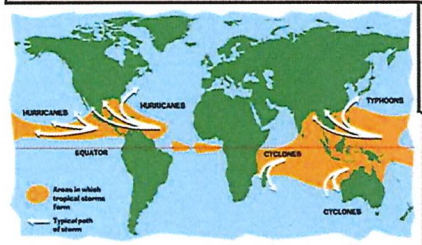
Atmospheric circulation is the large-scale movement of air by which heat is distributed on the surface of the Earth. This influences **weather & climate.**

Hadley Cell	Largest cell which extends from the **Equator** to between **30° to 40° north & south.**
Ferrel Cell	Middle cell where air flows **poleward** between **60° & 70°** latitude.
Polar Cell	**Smallest & weakness** cell that occurs from the poles to the Ferrel cell.



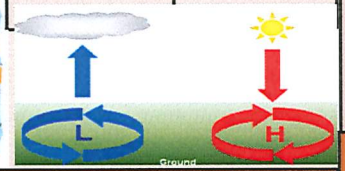
Distribution of Tropical Storms

They are known by many names, including **hurricanes** (North America), **cyclones** (India) **and typhoons** (Japan and East Asia). They all occur in a band that lies roughly 5 to 15 degrees north and south of the Equator.



High and Low Pressure

Low Pressure	High Pressure
Caused by **hot air rising.** Causes **stormy, cloudy weather.**	Caused by **cold air sinking.** Causes **clear and calm weather.**



Formation of Tropical Storms

1	The sun's rays heats large areas of ocean in the summer and autumn. This causes **warm, moist air** to rise over the particular spots
2	Once the **temperature is 27°**, the rising warm moist air leads to a **low pressure.** This eventually turns into a thunderstorm. This causes air to be sucked in from the **trade winds.**
3	With trade winds blowing in the opposite direction and the rotation of earth involved (Coriolis effect), the thunderstorm will eventually start to **spin.**
4	When the storm begins to **spin faster than 74mph,** a tropical storm (such as a hurricane) is officially born.
5	With the tropical storm growing in power, **more cool air sinks** in the centre of the storm, creating calm, clear condition called the **eye of the storm.**
6	When the tropical storm hits land, it **loses its energy source** (the warm ocean) and it begins to lose strength. Eventually it will 'blow itself out'.

Changing pattern of Tropical Storms

Scientist believe that **global warming** is having an impact on the **frequency** and **strength of tropical storms.** This may be due to an **increase in ocean temperatures.**

Management of Tropical Storms

Prediction & Monitoring

Storms can be **monitored** using *radar, satellites and aircraft.* Computer models can then be used to calculate a storms **predicted path.** Predicting **where & when** a tropical storm is going to happen gives people time to **evacuate. E.g. Haiyan 800,000 evacuated.**

Planning

Future developments e.g. new housing can be **avoid high-risk areas** e.g. low lying coastal zones. Governments can plan **evacuation routes, emergency services** can **prepare** by practising rescues from floods.

Protection

Buildings can be built to withstand storms or on **stilts** so they're safe from flood water. (Also **Flood defences** e.g. levees and sea walls)

Primary Effects of Tropical Storms

- The intense winds of tropical storms can destroy whole **communities, buildings** and **communication networks.**
- As well as their own destructive energy, the winds can generate abnormally high waves called **storm surges.**
- Sometimes the most destructive elements of a storm are these subsequent **high seas and flooding** they cause to coastal areas.

Secondary Effects of Tropical Storms

- People are **left homeless,** which can cause distress, poverty and ill health due to lack of shelter.
- **Shortage of clean water** and **lack of proper sanitation** makes it easier for diseases to spread.
- **Businesses are damaged** or destroyed causing employment.
- Shortage of food as **crops are damaged.**

Case Study: Typhoon Haiyan 2013

Causes: was a tropical depression on **2rd November 2013** and gained strength. Became a Category 5 **"super typhoon"** and made landfall on the Pacific islands of the Philippines. Winds reached **314km/h**

EFFECTS
Primary: 8,000 deaths, over **1 million homes** destroyed, **600,000 hectares** farmland flooded, **$13million** of damage **Secondary : 1.9 million homeless, 5.6million** workers lost their jobs, **dysentery** outbreaks.

RESPONSES
Immediate: 800,00 evacuated, some died in floods and evacuation centres. **State of emergency** declared- aid given. **Long Term:** UN appealed for **$300million** to rebuild. Charities built new homes. Tourism encouraged.

UK Extreme Weather Case Study: Beast from the East 2018

Causes: there was a change to the direction of the **northern polar jet stream** which then drew **cold air unexpectedly from the east.** The air picked up moisture from the **North Sea** bringing snow.

EFFECTS
- **Social: 10 deaths** linked to the cold, **schools closed,** people trapped in cars on **A303.**
- **Economic:** Insurance claims cost **£10million.**
- **Environmental:** small **ecosystems** affected by cold.

RESPONSES
- **Snow ploughs & gritters** cleared roads.
- **Met Office** issued a **red warning** to prevent unnecessary travel.
- **Army** deployed to rescue stranded people and drive **NHS** workers to work.

What is Climate Change?

Climate change is a **large-scale, long-term shift in the planet's weather** patterns or average temperatures. Earth has had tropical climates and ice ages many times in its 4.5 billion years.

Recent Evidence for climate change.

Global temperature	Average global temperatures have increased by more than **0.6°C since 1950.**
Ice sheets & glaciers	Many of the world's glaciers and ice sheets are melting. E.g. the Arctic sea ice has declined by **10% in 30 years.**
Sea Level Change	Average global **sea level has risen by 10-20cms** in the past 100 years. This is due to the additional water from ice and thermal expansion.

Enhanced Greenhouse Effect

Recently there has been an increase in **humans burning fossil fuels** for energy. These fuels (gas, coal and oil) emit **greenhouse gases.** This is making the Earth's atmosphere thicker, therefore trapping more solar radiation and causing **less to be reflected.** As a result, the Earth is becoming warmer.

Evidence of natural change

Orbital Changes	Some argue that climate change is linked to how the Earth orbits the Sun, and the way it wobbles and tilts as it does it.
Sun Spots	Dark spots on the Sun are called Sun spots. They increase the **amount of energy Earth receives** from the Sun.
Volcanic Eruptions	Volcanoes release large amounts of **dust containing gases.** These can **block sunlight** and results in cooler temperatures.

Managing Climate Change

Mitigation: reducing the **causes** of climate change.	**Adaptation:** responding to the **effects** of climate change.
- Carbon capture - Planting trees - Alternative energy production - International agreements	- Changing agricultural systems - Managing water supply - Coping with rising sea levels

Health and Social Care Knowledge Organiser: Component 1 Human Lifespan Development

Learning Aim A: Understand human growth and development across life stages and the factors that affect it

How do people grow and develop throughout their lives? How can factors such as lifestyle choices, relationships affect this? Understanding these processes is essential knowledge and understanding for health and social care practitioners.

A1 Growth and development across life stages

Lifestages

1. Infancy (0 – 2 years)
2. Early childhood (3 – 8 years)
3. Adolescence (9 – 18 years)
4. Early adulthood (19 – 45 years)
5. Middle adulthood (46 – 65 years)
6. Later adulthood (65+ years)

Holistic Development

1. **Physical development** – Physical growth and physiological change
2. **Intellectual development** – Developing thinking and language skill and common activities that promote learning and development
3. **Emotional development** – Developing feelings about self and other
4. **Social development** – Forming relationships

A2 Factors affecting growth and development

1. Physical factors

a) Genetic inheritance
b) Diet and lifestyle choices
c) Experience of illness and disease
d) Appearance

2. Economic factors

a) Income/ wealth
b) Material possessions

3. Social, Cultural and emotional factors

a) Educational experiences
b) Culture, e.g. community involvement, religion, gender
c) Influence of role models
d) Influence of social isolation
e) Personal relationship with friends and family

Learning Aim B: Investigate how individuals deal with life events

B1 Different types of life event

1. Physical events

a) Accident/ injury
b) Ill health

2. Relationship changes

a) Entering a relationship
b) Marriage
c) Divorce
d) Parenthood
e) Bereavement

3. Life circumstances

a) Moving house, school or job
b) Exclusion from education
c) Redundancy
d) Imprisonment
e) Retirement

B2 Coping with change caused by life events

1. How individuals adapt to these changes

2. Sources of support

a) Family, friends partners
b) Professional carers and services
c) Community groups, voluntary and faith based organisations

3. Types of support

a) Emotional
b) Information advice
c) Practical help, e.g. financial assistance, childcare, transport

Year 10 History: Term 1

Superpower Relations

Czechoslovakia and the Prague Spring (1966-1968)

Czechoslovakia was a Satellite State of the USSR since a coup 1948.

Since 1968 there had been student protests due to the low standard of living. When Dubcek became their new leader, he wanted 'socialism [communism] with a human face'.

Dubcek's reforms were known as the 'Prague Spring' and included relaxed censorship and trade with the West. Brezhnev (Soviet leader) feared that they would leave the Warsaw Pact.

The Warsaw Pact invaded with 500,000 troops to end the Prague Spring. Dubcek was arrested, and Brezhnev justified it with the Brezhnev Doctrine – he claimed that it was the Soviet responsibility to protect communism. This strengthened Soviet control in Eastern Europe.

Détente (1972-1979)

Détente was a period of relaxed tension between the USSR and USA.

It began because both sides wanted to reduce the tension and money they were spending on the arms race (the USA was also trying to fight a war in Afghanistan and the Soviets had low standards of living).

Various agreements were made to reduce tension. Beginning with SALT 1 , 1972 (reducing nuclear arsenals), moving to the Helsinki Accords, 1975 (agreeing on 3 baskets), before SALT 2 was agreed in principle in 1979.

SALT 2 was never ratified because in 1979 the USSR invaded Afghanistan (they wanted it as part of their buffer zone and were worried about American influence there). This ended Détente.

'Second' Cold War (1979-1985)

When the Soviets invaded Afghanistan (1979), relations rapidly deteriorated, with US President Carter claiming it was the biggest threat to world peace since WWII.

Increasing tensions were seen when the USA and their allies boycotted the 1980 Moscow Olympics (with the USSR retaliating in the 1984 LA Olympics).

When President Reagan was elected, his doctrine was anti-Soviet. He promised financial and military help to countries trying to overthrow communist governments, and increased spending on nuclear weapons. The USA also announced the development of a (fake!) space laser to deter nuclear war (called Strategic Defence Initiative).

The end of the Cold War (1989) and collapse of the USSR (1991)

Financial and social problems in the USSR were apparent when Gorbachev became Soviet leader in 1985. He introduced his 'new thinking to combat this'. This included perestroika (introducing capitalist ideas), glasnost (being able to criticise the government), and removing the Brezhnev Doctrine.

The USA liked Gorbachev's reforms, and had a series of summits when they reached agreements. This led to the end of Cold War declared at the 1989 Malta Summit.

Satellite States (such as East Germany) saw their opportunity to leave Soviet control (e.g. tearing down the Berlin Wall). This led to the collapse of the Warsaw Pact.

Soviet leaders lost faith in Gorbachev and tried to overthrow him. Although this failed, Gorbachev resigned and the Soviet Union collapsed in 1961.

Early Elizabethan England

Problems with Elizabeth first became Queen

Gender – The church taught that women were less capable than men, making Elizabeth an easy target.

Pressure to marry – Elizabeth had several proposals (including from the King of Spain), however chooses not to marry so that she does not have to give up power.

Legitimacy – As the Pope didn't grant Henry VIII a divorce from his first wife, Catholics believed that Henry wasn't legally married to Elizabeth's mother. This would make Elizabeth illegitimate and unable to rule.

Financial Problems – As Elizabeth's sister (Mary I) had waged an expensive war against France, the crown was in debt by £300,000 by 1558. However, the crown only made £286,667 a year.

Religion – There were religious divides in England (between Catholics, Protestants, and Puritans). Although Elizabeth was Protestant, there were more Catholics in the country.

Spain – Mary I (Elizabeth's sister) had been married to Philip II of Spain who was also a Catholic.

France – England and France had been at war during Mary I's reign, and to make peace in 1559 Elizabeth was forced to give up the important port of Calais. France was Catholic.

Scotland – Scotland was another Catholic country and had an alliance (called the Auld Alliance) with France. Elizabeth's cousin, Mary Queen of Scots, was the monarch of Scotland and was next in line for the English throne.

Catholicism – A type of Christianity. Catholics believed that the **Pope** was in charge of the Church (and God's representative on Earth). They also believed the Bible should be written in Latin, that churches should be expensively decorated, and that priests were special.

Protestantism – A new type of Christianity in the 1500s, set up by the German monk Martin Luther to protest the Catholic Church. Protestants believed that churches should be simply decorated, that priests weren't special, that the Pope shouldn't be in charge of the church, and that the Bible should be written in whichever language the person reading it spoke (such as English).

Puritans – Extreme Protestants. They believed that no one should be in charge of the church, the Bible should be followed exactly (e.g. no Christmas), and that churches should have no decoration.

Religious Settlement – A series of laws passed by Elizabeth's government in 1559. They were the religious rules that all people in England had to follow. Elizabeth aimed to follow 'the Middle Way'.

Act of Supremacy – Part of the Religious Settlement. It made Elizabeth the 'Supreme Governor' of the Church of England. In it, all clergy had to swear an oath of loyalty to Elizabeth.

Act of Uniformity – Part of the Religious Settlement. It included the rules for the appearance of churches and church services, including priests having to wear vestments, and an English prayer book.

Royal Injunctions – The laws to enforce the Religious Settlement. It included a fine of a shilling (12p) for those who did not attend church (recusants).

1569 – Revolt of the Northern Earls

Catholic plot to overthrow Elizabeth and put Mary QoS on the throne.

Rebels celebrated Catholic mass in Durham, but were then stopped by Elizabeth's army – 500 rebels were hanged.

The Pope consequently excommunicates Elizabeth.

1571 – Ridolfi Plot

Catholic plot (with Spanish backing) to put MQoS on the throne.

It was uncovered by Walsingham's spies.

Elizabeth passed harsher laws against Catholics.

1583 – Throckmorton Plot

Catholic plot (with French backing) to put MQoS on the throne.

Plot uncovered and Throckmorton executed.

1586 – Babington Plot

A message from Mary QoS was intercepted, proving she was trying to have Elizabeth killed.

Mary was put on trial and executed.

Puritan Controversies – Puritans showed opposition to Elizabeth's Settlement. For example, Puritan bishops threatened to quit over **crucifixes**, and Elizabeth had to fire clergy who refused to wear **vestments**.

VOCATIONAL IT

AUTUMN TERM

INPUT DEVICE
A piece of equipment that allows users to enter data into a computer. These device are used to create a digital product.

CAPTURING IMAGES
Scanner: To digitise documents which means to convert a hard copy (paper) into a digital version stored on a computer. There are two types of scanner: flatbed and handheld.
Digital camera: A way of capturing a digital image. Commonly embedded within smart devices now.
Graphics tablet: It allows the user to input a drawing to the computer using a type of pen called a stylus

CAPTURING SOUND
Webcam: Used to communicate with each other using an internet connection. This captures audio and visual elements and is commonly used for online meetings.
MIDI keyboard: A way of inputting sounds to a computer through digital signals.
Microphone: Used to input data that can be converted digitally or outputted to an output device like speakers.

Sensors: It uses different methods to input data into a computer for a specific purpose. For example, a thermostat will read room temperature and an infrared sensor may detect movement

OUTPUT DEVICE
A piece of equipment that allows users to receive data from a computer. These device are used to view a product in digital or hard copy form.

TO VIEW
Monitor/Screen
This allows you to view information on a screen.
Projector
This is used to view data on a larger screen, used in meetings and conferences.

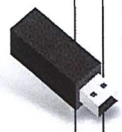
TO LISTEN
Speakers
This allows the user to hear sound such as: listening to music, watch a video, enhance the sound quality on a computer game.
Headphones
This is an alternative way of hearing sound but instead this is used so that one individual can hear the sounds instead of being heard by everyone.

PRINTERS:
Inkjet
Dot matrix
Dye-sublimation
Laser printer
Thermal printer
3D Printer

Plotter: This allows large scale drawings such as maps and large posters to be printed. It also uses vector graphics which enables high quality content to be printed.

PRIMARY STORAGE
Primary storage provides fast access to the CPU. That allows active programs to deliver optimal performance to the end-user.

VOLATILE AND NON - VOLATILE
Volatile memory means when the computer is switched off, data is lost. Whereas, non-volatile memory has the ability to retain data even when the computer is switched off.



SECONDARY STORAGE is a non-volatile form of storage which means data can be stored and accessed later on. It's not as close to the CPU as RAM therefore, it can be slower to access data.

MAGNETIC STORAGE

Description

The most common example of magnetic storage is a Hard Drive. The hard drive contains a number of moving mechanical parts such as a spinning platter with a thin magnetic coating. A "head" moves over the platter, writing 0's and 1's on the platter

Pros: Low cost per GB, It has an unlimited number of read/write cycles.

Cons: Slow to read and write data because it uses an

OPTICAL STORAGE

Description

Optical storage works when lasers write data to the disc and read from it using a series of pits and lands. Examples of magnetic storage include: CD, DVD and Blu-ray

Pros: Portable as it's small, lightweight and easy to carry around. Reliable if it's looked after properly (i.e. in a protective case)

Cons: Might not be as durable because the disk may get scratched. Low capacity in comparison to other portable alternatives (e.g. USB flash drive)

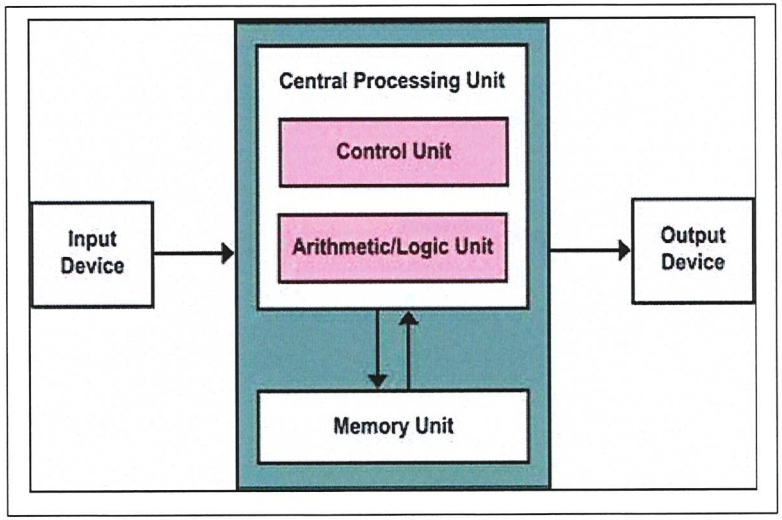
CLOUD STORAGE

Description

Cloud storage is a form of online storage that enables data to be stored and backed up over a network. Many individuals and organisations will pay cloud service providers to store their data remotely which can be accessed anywhere as long as there is an internet connection.

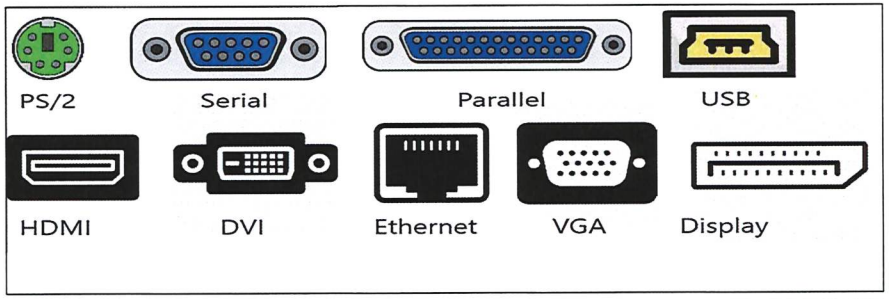
Pros: Data is backed up frequently and easy to recover.

Cons: If your Internet connection fails, so does your access to remotely stored data.



Control Unit:
Decodes instructions and sends signals the other components on how to respond to this instruction.

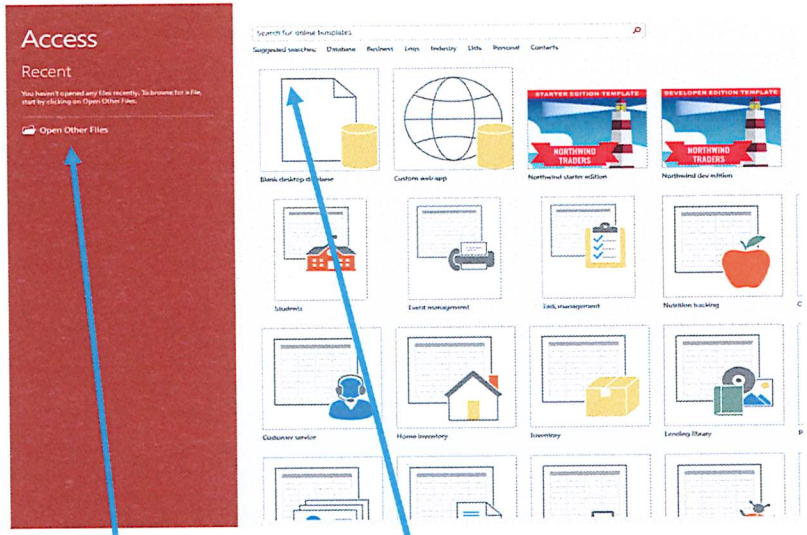
Arithmetic Logic Unit:
Responsible for performing arithmetic calculations and logical decisions.



Description:
Ports are slots on the motherboard into which a cable of external device is plugged in.

KEY TERMS	
COST	How much the device costs per MB.
CAPACITY	How much space is available on the storage device.
RELIABILITY	Longevity – how well it can maintain the same level of performance over time.
DURABILITY	How resistant it is to external factors such as being dropped, scratched and how it responds to being in extreme conditions.
PORTABILITY	How easy is it to transport from one place to another.
SPEED	How quickly the data can be read and transferred from the storage device.

DATABASE



OPEN A DATABASE
Click a database in the Open Recent Database or click more and browse for it

CREATE A DATABASE
Click Blank database button

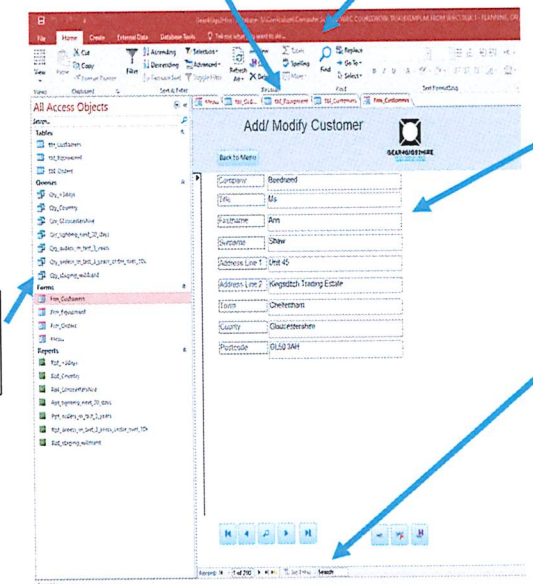
RIBBON: Holds the options to start a new database, open a saved file, save, print prepare for distribution, create queries, forms and records

Object tabs

Table in Form View

Record Navigator

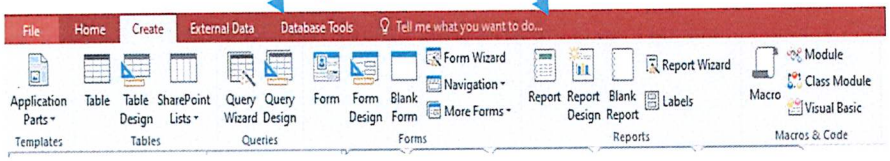
Navigation pane



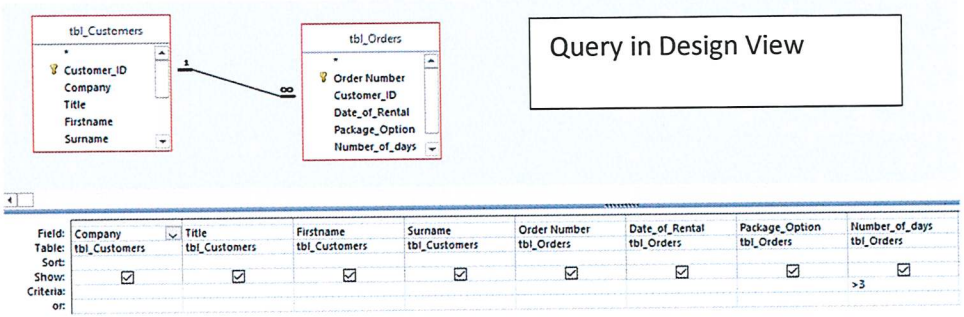
Create a form

Create a query

Create a report



Query in Design View



SPREADSHEETS

Spreadsheets are used to store information and data. Once we have our information in a spreadsheet we can run powerful calculations, make graphs and charts and analyse patterns.

Other uses for spreadsheets –
- Modelling and Planning
- Home/Business Finance and Budgeting
- Wages/Invoices
- Predictions / Simulations / Calculations
- Creating charts and graphs

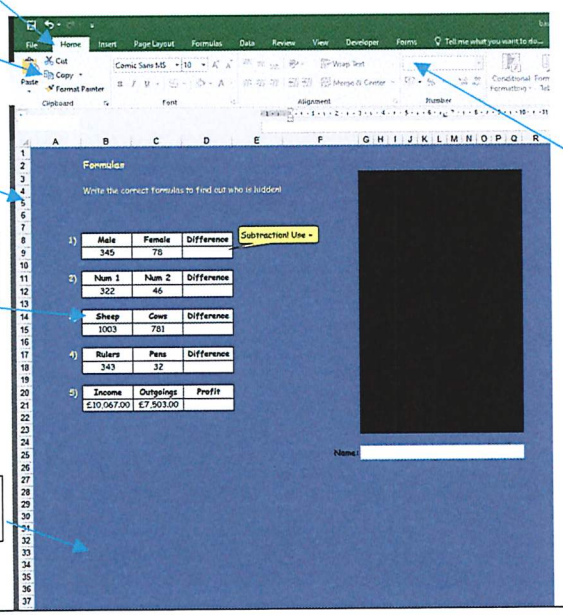
Active Cell

Column (Letter)

Rows (Number)

Text label

Worksheet



Formula Bar

GOLDEN RULES:

Every formula starts with an =

Cell References begin with a letter and finish with a number e.g. A1

A range is a selection of cells e.g. A2:F4

KEY VOCABULARY:

A **FORMULA** allows you to quickly make calculations and get totals of multiple Cells, Columns, or Rows in a spreadsheet

A **FUNCTION** is a complex formula such as VLOOKUP or IF

CONDITIONAL FORMATTING allows you to apply formatting to specific cells based on their values

KEY FORMULAS/FUNCTIONS:

= SUM - Adds a range of cells together

= AVERAGE – Finds an average for a range of cells

= MIN – Finds the smallest value in a range

= MAX – Finds the highest value in a range

= COUNT = Counts cells if they meet a condition

= IF – a logical function to return a value IF a condition is true or another IF a condition is false e.g. = IF(A2>B2, "OVER BUDGET", "OK")

NOTES:

GCSE Mathematics Command Words	PLOT Mark a point on a graph using a cross	MEASURE Find the length or a line or size of an angle using ... ... a ruler or protractor	CONSTRUCT Create an accurate drawing using the correct maths equipment Think ruler and compass
EXPAND Remove brackets from and algebraic expression $3(x+4) = 3x + 12$	GIVE or JUSTIFY Use reasons to explain thinking Think angle facts line 'angles at a point sum to 360°'	REPRESENT Display information in a graph or chart	FIND Work out an answer to a problem Think averages - find the mode
SOLVE Find the solution to an equation such as $4x - 3 = 24$	SHOW Give all working to get the answer	EVALUATE or CALCULATE or WORK OUT Find the value (calculate) Evaluate 4^3: $4 \times 4 \times 4 = 64$	CONVERT Change from one form to another Think units and fractions, decimals & percentages
EXPLAIN Give reasons to support the decision or answer	SIMPLIFY Make an algebraic expression simpler by collecting like terms OR make a ratio or fraction simpler by cancelling common factors	ROUND Make a number simpler but keep its value close to what is was 74.26 rounded to 1dp is 74.3	ORDER Use a rule to arrange Think ascending and descending
DRAW Create a neat drawing that show key features	FACTORISE Put brackets into an algebraic expression $x^2 + 6x + 8 = (x+2)(x+4)$	ESTIMATE Give a sensible approximate answer using rounding	WRITE Give the answer
SKETCH Create a rough drawing that shows key features (no need to use a ruler or compass)	DESCRIBE Use correct maths vocabulary to explain key features Think transformations	LABEL Attach the correct name to the diagram	COMPLETE Fill in missing values in a table or on a diagram

Foundation GCSE Mathematics Key Information

Prime Number

A number that has exactly 2 factors

2, 3, 5, 7, 11, 19, ...

Square Number

A number multiplied by itself

$5^2 = 5 \times 5 = 25$

Cube Number

A number multiplied by itself and then itself again

$5^3 = 5 \times 5 \times 5 = 125$

Multiple

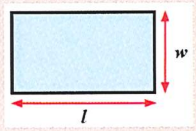
The first 5 multiples of 12 are 12, 24, 26, 48 and 60

Factor

The factors of 12 are 1, 2, 3, 4, 6 and 12

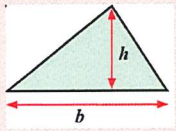
Area of a Rectangle

$A = l \times w$



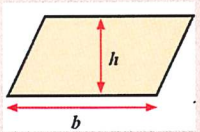
Area of a Triangle

$A = \frac{1}{2} \times b \times h$



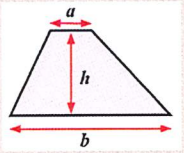
Area of a Parallelogram

$A = b \times h$



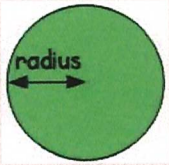
Area of a Trapezium

$A = \frac{1}{2} \times (a + b) \times h$



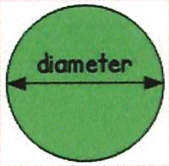
Area of a Circle

$A = \pi \times r^2$



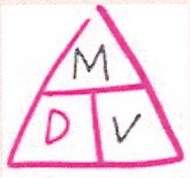
Circumference of a Circle

$C = \pi \times d$

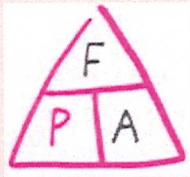


Speed

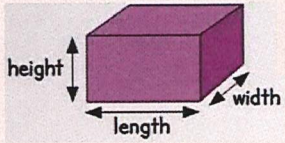
Density



Pressure

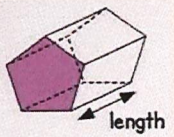


Volume of a Cuboid



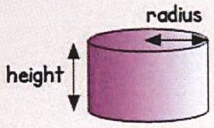
$V = l \times w \times h$

Volume of a Prism



$V = area\ of\ cross - section \times length$

Volume of a Cylinder



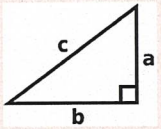
$V = \pi \times r^2 \times h$

Percentage Change

$$\frac{actual\ change}{original} \times 100$$

Pythagoras' Theorem

$a^2 + b^2 = c^2$



Metric Length Conversions

1km = 100m
1m = 100cm
1cm = 10mm

Metric Mass Conversions

1 tonne = 1000kg
1kg = 1000g
1g = 1000mg

Metric Capacity Conversions

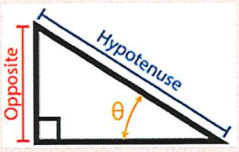
1l = 1000ml
1l = 100cl
1cl = 10ml

Error Interval

7·4 rounded to 1dp

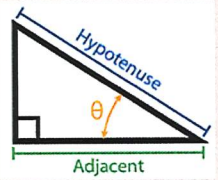
$7.35 \leq x < 7.45$

Sinθ



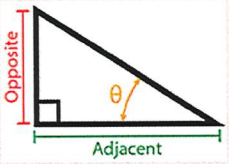
$Sin\theta = \frac{Opp}{Hyp}$

Cosθ



$Cos\theta = \frac{Adj}{Hyp}$

Tanθ



$Tan\theta = \frac{Opp}{Adj}$

Exact Values of Sin

θ	0°	30°	45°	60°	90°
$sin\theta$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1

Exact Values of Cos

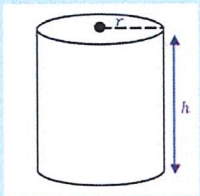
θ	0°	30°	45°	60°	90°
$cos\theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0

Exact Values of Tan

θ	0°	30°	45°	60°	90°
$sin\theta$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	

Higher GCSE Mathematics Key Information

Cylinder



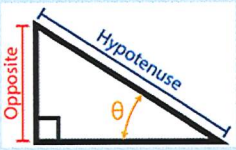
$Vol = \pi r^2 h$

Speed

Percentage Change

$$\frac{actual\ change}{original} \times 100$$

Sinθ



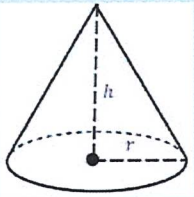
$$Sin\theta = \frac{Opp}{Hyp}$$

Quadratic Formula

$ax^2 + bx + c = 0$

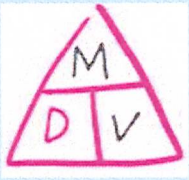
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Cone



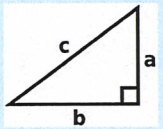
$Vol = \frac{1}{3}\pi r^2 h$

Density

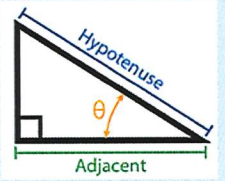


Pythagoras' Theorem

$a^2 + b^2 = c^2$



Cosθ



$$Cos\theta = \frac{Adj}{Hyp}$$

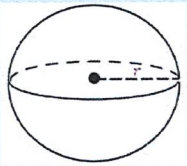
Surds

$\sqrt{a} \times \sqrt{a} = a$

$\sqrt{a} \times \sqrt{b} = \sqrt{a \times b}$

$\frac{\sqrt{a}}{\sqrt{b}} = \sqrt{\frac{a}{b}}$

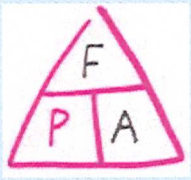
Sphere



$Vol = \frac{4}{3}\pi r^3$

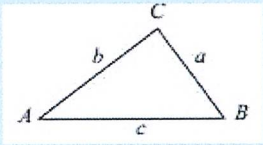
$S.A. = 4\pi r^2$

Pressure

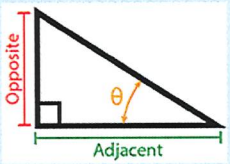


Trigonometry

Non-right angled triangles



Tanθ



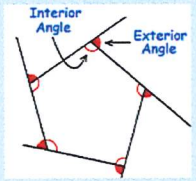
$$Tan\theta = \frac{Opp}{Adj}$$

Error Interval

7·4 rounded to 1dp

$7.35 \leq x < 7.45$

Angles in Polygons

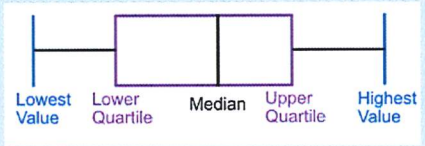


sum interior angles
= (n − 2) x 180°

sum exterior angles = 360°

interior + exterior = 180°

Box Plots



Sine Rule

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

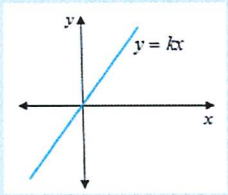
Exact Values of Sin

θ	0°	30°	45°	60°	90°
$sin\theta$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1

Direct Proportion

$y \propto x$

$y = kx$



Histogram

bar chart with unequal bar width and frequency density on vertical axis

Frequency density = frequency ÷ class width

Cosine Rule

$a^2 = b^2 + c^2 - 2bc\ cosA$

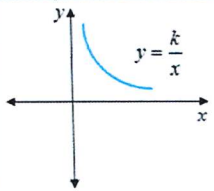
Exact Values of Cos

θ	0°	30°	45°	60°	90°
$cos\theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0

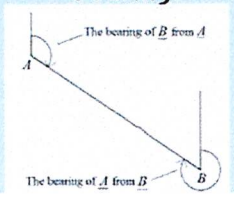
Inverse Proportion

$y \propto \frac{1}{x}$

$y = \frac{k}{x}$



Bearings



Rules of Indices

Rule 1 $a^0 = 1$	Rule 4 $(a^m)^n = a^{m \times n}$
Rule 2 $a^m \times a^n = a^{m+n}$	Rule 5 $a^{-m} = \frac{1}{a^m}$
Rule 3 $a^m \div a^n = a^{m-n}$	Rule 6 $a^{n/m} = \sqrt[m]{a^n}$

Area Triangle

$Area = \frac{1}{2}absinC$

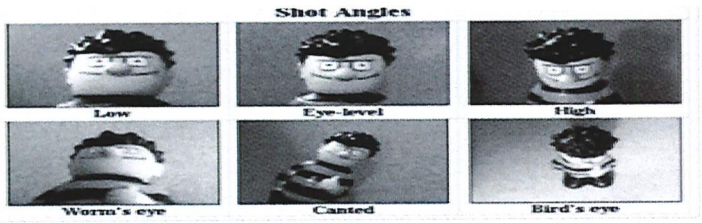
Exact Values of Tan

θ	0°	30°	45°	60°	90°
$sin\theta$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	

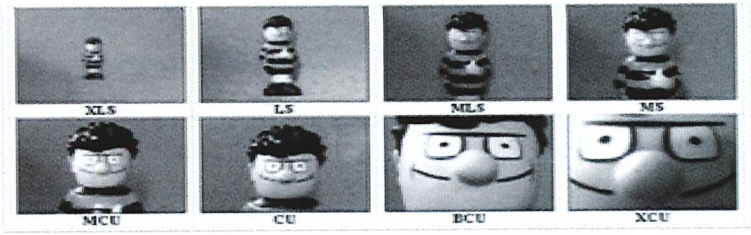
Media Studies

Key Words	
Blockbuster	a Hollywood movie that's made with a large budget and big stars.
Independent Film	An indie film is any feature-length or short film that is made without a major studio or big production company attached.
Marketing	the action or business of promoting and selling products or services, including market research and advertising.
Vertical Integration	Vertical integration refers to the process of acquiring business operations within the same production vertical. A company that opts for vertical integration takes complete control over one or more stages in the production or distribution of a product.
Conglomerate	a large corporation.
Subsidiaries	a company controlled by a holding company.
Horizontal Integration	Horizontal integration and vertical integration are competitive strategies that companies use to consolidate their position among competitors. Horizontal integration is the acquisition of a related business. A company that opts for horizontal integration will take over another company that operates at the same level of the value chain in an industry.
Zeitgeist	the defining spirit or mood of a particular period of history as shown by the ideas and beliefs of the time.
Globalisation	the process by which businesses or other organizations develop international influence or start operating on an international scale.
Public Service Broadcaster	Public broadcasting involves radio, television and other electronic media outlets whose primary mission is public service.
Commercial Broadcaster	Commercial broadcasting is the broadcasting of television programs and radio programming by privately owned corporate media, as opposed to state sponsorship.
Manufactured Artist	artists who don't have any input in their music, have writing camps and have a big team of people working with them to make decisions.
Authentic Artist	Artists that influence their own music and image.
Performance Video	A video that is styled to be like a performance to an audience.
Narrative Video	A video with a story.
Convergence	Technological convergence, also known as digital convergence, is the tendency for technologies that were originally unrelated to become more closely integrated and even unified as they develop and advance.
Freemium Gaming	Freemium, a portmanteau of the words "free" and "premium," is a pricing strategy by which a basic product or service is provided free of charge, but money is charged for additional features, services, or virtual or physical goods that expand the functionality of the free version of the software.
Intrinsic Narrative	Story is written for the player to play.
Extrinsic Narrative	Story can be controlled and changed by the player.
Hyperreality	an inability of consciousness to distinguish reality from a simulation of reality, especially in technologically advanced postmodern societies

Key Theories	
Connell's Theory of Gender	Subordinated Femininity: women are subservient to men and have little power. Emphasised Femininity: the idea that women must conform to the needs and desires of men, through their looks and sexual appeal. Resistant Femininity: women as resisting the stereotypes and presenting themselves as powerful. Hegemonic Masculinity: perpetuates the idea that men are dominant in society/ Stereotypical, manly man. Complicit Masculinity: men who subvert the stereotypes of men, often engaging more with 'feminine' roles such as the stay at home dad. Subordinated Masculinity: LGBTQ+. Considered to lack power in society.
Laura Mulvey's Male Gaze Theory	Laura Mulvey's Male Gaze Theory: Female images in media texts are objectified and viewed through the eyes of a heterosexual man.
Judith Butler's Theory of Gender Stereotypes	Suggests that the existence of stereotypes is due to the fact that they are repeated over and over again in the media.
Propp's Character Theory	Hero, Villain, False Hero, Donor (gives the hero something), Helper, Princess, Father, Dispatcher (sends hero on their way).
Todorov's Theory of Equilibrium	Equilibrium: state of balance. Disequilibrium: state of conflict/chaos. New Equilibrium: resolution.
Binary Opposites	opposition exists in narratives to propel a story forward.
Enigma Codes	questions/mystery exist in media texts to engage the audience.
Active Audience Theories	Suggests that audiences can respond to and interpret media texts in their own ways. Uses and Gratifications Theory: suggests audiences choose to go to media texts to gain: Personal Identity, Information, entertainment, education or social interaction. Dyer's Utopian Theory: suggests audiences go to media texts to gain a sense of escapism from their normal lives.
Passive Audience Theories	Suggests that audiences accept the messages of the media without questioning them. Hypodermic Needle Model: messages are injected into the minds of audiences, without them questioning it. Cultivation Theory: The more an audience is exposed to something, the more likely they are to believe it is true.



Media Studies



Codes	Technical, written and symbolic tools used to construct or suggest meaning in media forms and products.
Genre	a style or category of art, music, or literature.
Mise-en-scene	the arrangement of the scenery, props, etc. on the stage of a theatrical production or on the set of a film. The setting or surroundings of an event.
Anchorage	Where the meaning of a media text is fixed or stabilised by a caption, shot type, costume or so on *(ie: it anchors the meaning)*.
Semiotics	the study of signs and symbols and their use or interpretation.
Signifier	a sign's physical form (such as a sound, printed word, or image) as distinct from its meaning.
Signified	the idea or meaning being expressed by that signifier.
Denotation	the literal meaning of a sign.
Connotation	the associated meaning of a sign.
Polysemic	a sign with multiple connotations can be described as polysemic.
Representation	the way a person or social group is presented.
Conform	following the rules or expectations.
Subvert	going against the rules or expectations.
Under-representation	a person or social group who isn't represented often or enough in media.
Misrepresentation	a person or social group is represented inaccurately through media.
Stereotypes	an assumption made about a person or social group.
Direct Mode of Address	visually, looking towards the audience, verbally, addressing them with "you."
Indirect Mode of Address	no reference made to the audience; lack of eye contact or direct speech.
Demographic	socioeconomic factors relating to an audience.
Psychographic	specific interests or attitudes of an audience.
Geographic	the location of a specific audience.

Social Mobility	the movement between social class levels.
Cultural Capital	social assets (education, intellect, style of speech, dress, etc.) The term was coined by 1970s French sociologist Pierre Bourdieu, who developed the idea as a way to explain how power in society was transferred and social classes maintained.
Mass Audience	a large audience, made up of varying demographics, psychographics and geographics.
Niche Audience	a specific audience type with specific interests and socioeconomic factors.
Diegetic Sound	Natural, ambient sound.
Non-Diegetic Sound	Edited or added sound.
Dialogue	Speech in a narrative.
Cross Cut	Transitioning between two lines of action, indicating they are happening at the same time.
Cutting on action	Transitioning from one angle of the action, to the other, to show what has happened.
Continuity editing	Editing that creates a smooth flow to the order of events.
Dissolve	A gradual scene transition, where the end of one shot is overlapped by another.
Montage	Many scenes edited together to create a summary of events.
Jump Cut	A cut that creates a lack of continuity, by leaving out parts of the action.
Smash Cut	An abrupt cut, going from loud to quiet, or quiet to loud.
Invisible Cut	Where the cut is hidden, so the audience are unable to see it.
Shot reverse shot	Cutting between over the shoulder shots, to show a conversation taking place.
Shallow Focus	Where the subject closest to the camera is in focus.
Deep Focus	Where the subject furthest away from the camera is in focus.
Focus Pull	Pulling the focus from shallow to deep, or deep to shallow.
J-Cut	Where the audio begins before the scene in which it appears.
L-Cut	When the audio from the previous scene continues into the next scene.
CGI	Computer Generated Image.
Panning, tracking and tilting	Panning – camera stays put, but pans the scene in front. Tracking – camera moves with the subject moving in the shot, or follows the subject around. Tilting – camera stays still, but tilts up and down.

Clarinet Concerto in A Major 3rd Movement Rondo

Solo instrument plays main melody

Piece with solo instrument and orchestral accompaniment

Overall key of the piece

We're just learning the final 3rd part of a full concerto which has 2 sections before ours

Form/structure of the piece with A,B,A,C,A sections

MUSIC

Horns in A

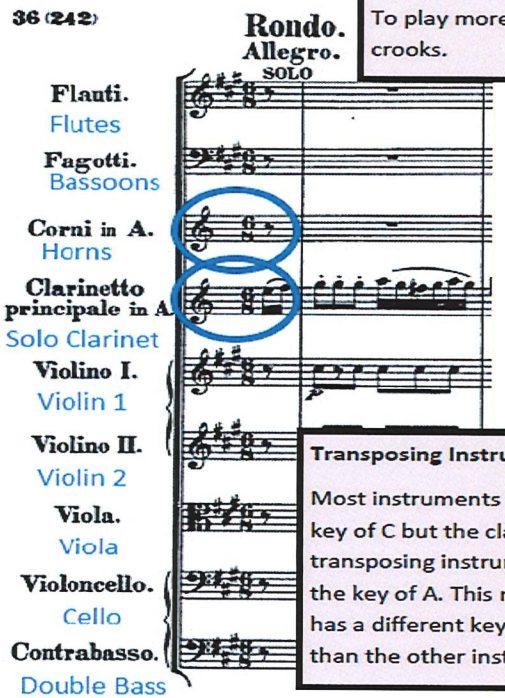
The natural horns can only play limited notes so Mozart uses the horn that is already in the key of A and it doesn't need a key signature. To play more notes, the horn player inserts crooks.

Diatonic

Overall the harmony of the piece is diatonic. This means it follows the rules of key signatures, chords and cadences

Tempo

The tempo is Allegro which means fast



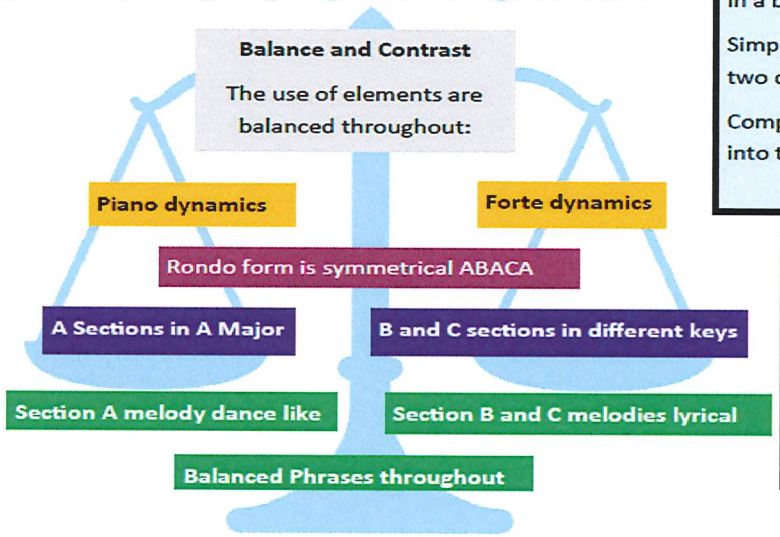
Transposing Instruments

Most instruments are in the key of C but the clarinet is a transposing instrument in the key of A. This means it has a different key signature than the other instruments.

Mozart Set Work

Balance and Contrast

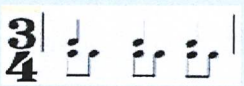
The use of elements are balanced throughout:



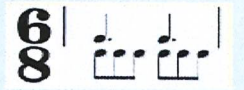
Compound Time Signature

The piece is in 6/8 which means 6 quaver beats in a bar split into two sets of 3 quavers.

Simple time split into two quavers:



Compound time split into three quavers:



Dynamics

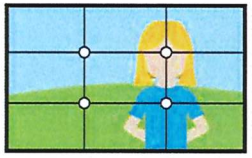
The piece mostly uses piano (quiet) and forte (loud) dynamics creating a sense of balance. There are some crescendos (gradual change to loud) and ***sfp*** sforzando piano is used for sudden loud to quiet

	Section A	Section B	Section A1	Section C			Section A3	
					Section A2	Section B2		Coda
Melody	Conjunct 2 bar phrases Dance-like feel	Conjunct and disjunct 4 bar phrases Lyrical feel	Conjunct 2 bar phrases Dance-like feel	Disjunct 4 bar phrases Lyrical feel	Variation of main theme heard with just part of it	Conjunct and disjunct 4 bar phrases Lyrical feel	Conjunct 2 bar phrases Dance-like feel	
	All themes use chromatic notes							
Tonality	**Tonic key– A Major**	Starts in Tonic key A Major **Lots of modulations to different major and minor keys**	**Tonic key– A Major**	Starts in relative minor key– F# Minor **Lots of circle of fifths modulations**	**Changing key** to lead back into tonic	Starts in Tonic key A Major **Lots of modulations to different major and minor keys**	**Tonic key– A Major**	
Harmony	Section A melody and whole section ends on **perfect cadence** to sound finished	Section B **ends on dominant** after lots of key changes to help lead back into tonic next section	**Starts on tonic** to re-establish tonic key A Major	Dominant chords used for quick circle of fifths key changes	Ends on dominant after key changes to help lead back into tonic next section	Ends on dominant after key changes to help lead back into tonic next section	**Starts on tonic** to re-establish tonic key A Major	Whole piece ends with **perfect cadence** to sound finished
Texture	Some unison and octaves used in accompaniment		Homophonic to end section with all parts moving together			Imitation used creating contrapuntal texture		Homophonic to end section with all parts moving together
	Mostly Melody and Accompaniment texture throughout to bring out the solo clarinet part							
Rhythm	Section A melody has **anacrusis** to drive melody forward	Section B melody **does not have anacrusis** to contrast and help with lyrical feel	**Hemiola** used created by tremolo effect making it feel like a different time signature– builds tension at end of section	Section C melody has **anacrusis** similar to section A	Section A melody has **anacrusis** to drive melody forward	Two big **pauses** interrupt the flow of the pulse	Section A melody has **anacrusis** to drive melody forward	

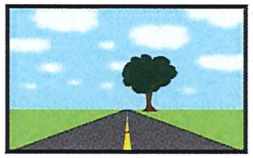
Photography

Useful websites:
Techniques - https://www.bbc.co.uk/bitesize/guides/zgwpnbk/revision/2
Free at home Photoshop - https://www.photopea.com/

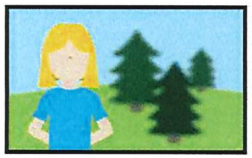
PHOTO BASICS



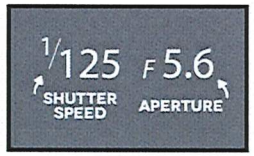
RULE OF THIRDS
The photo is divided by nine boxes. The subject is in one of the intersecting lines, or the circles.



LEADING LINES
The road in this picture serves as a guide that lead your eyes to the subject of the photo.



DEPTH OF FIELD
This is when the subject of the photo is completely in focus and the background is blurry. This can be controlled by aperture.

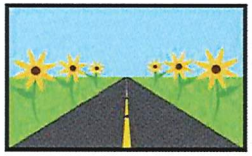


SHUTTER SPEED & APERTURE
These figures are on your SLR camera screen. The higher the number (1/400), the faster the shutter speed. You are able to shoot faster subjects. As your aperture number gets lower (F2.8), more light is allowed into the lens. More light allows you to shoot in lower light situations.

FRAMING
This is when there are objects around the subject that frame the subject, making your eyes more drawn to it.

BALANCE
Placing your main subject off-centre, as with the rule of thirds, creates a more interesting photo. You should balance the "weight" of your subject by including another object of lesser importance to fill the space.

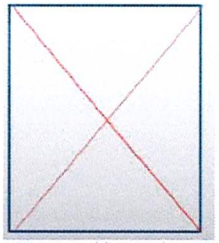
VIEW POINT
Before shooting your subject, think about where you will shoot it from. The viewpoint has a massive impact on the composition of a photo, and it can greatly affect the message that the shot conveys.



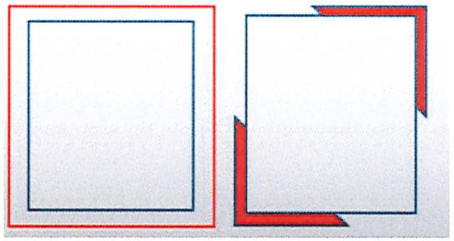
SYMMETRY
This is when the photo is equally balanced or has a pattern, creating symmetry within the photo. This can be very eye-catching, particularly in situations where they are not expected.

School cameras:
Canon 4000D
Canon 1300D

Annotation key:

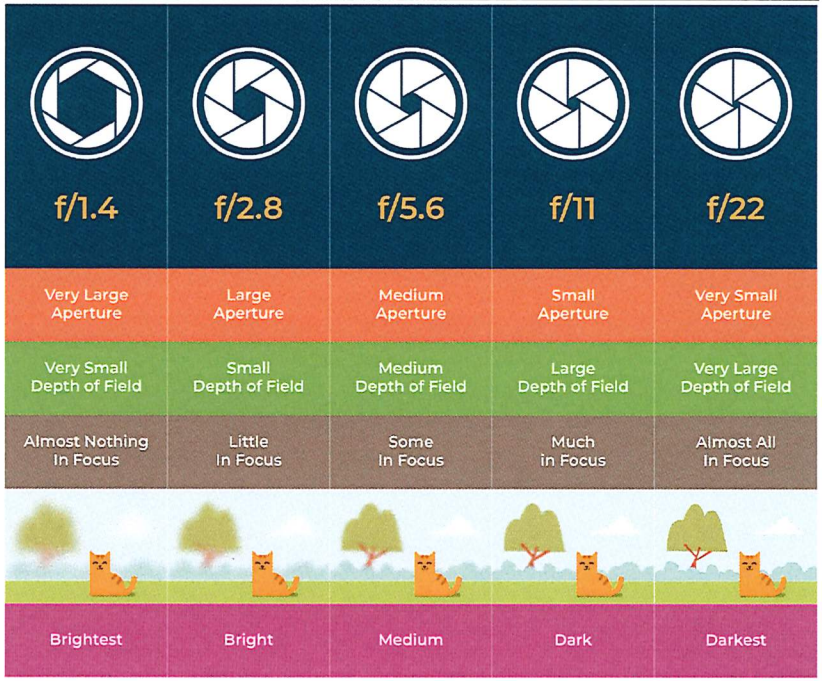


Discounted/not relevant to photoshoot



Point of focus - successful photo in relation to statement of intent

Photo needs cropping



Keywords:

- **Aperture** - how small/big the opening of the lens is to let light in.
- **Composition** - how you place the subject of your photograph.
- **Digital manipulation** - photos edited digitally. E.g. using Photoshop or a phone app.
- **Exposure** - how dark/light a photograph is. Under exposed = too dark. Over exposed = too much light.
- **F stop** - the aperture size. Low F stop = bigger aperture/more light. High F stop = smaller aperture/less light.
- **Manual manipulation** - photos edited manually. E.g. cutting up and rearranging, putting filters in front of the camera lens.
- **Shutter speed** - how long the camera takes a photo for. Short shutter speed = less chances of blurring/capturing movement. Long shutter speed = blurring and movement, e.g. light trails.

1. Aerobic and Anaerobic respiration

A

- There are two types of respiration – aerobic (which needs oxygen) and anaerobic (which doesn't need oxygen).
- Aerobic exercise can be maintained for long periods and includes activities like walking, jogging, cycling and swimming.
- The word equation of aerobic respiration is:

glucose + oxygen ➡ energy + carbon dioxide + water

- This means that after exercising for a prolonged period of time, your body breaks down glucose and therefore provides your working muscles with energy. This is called respiration

B

Anaerobic respiration

- When you exercise at a high intensity, the respiratory system cannot supply enough oxygen to the muscles. This is known as anaerobic respiration.
- These types of activities include sprinting, weightlifting, throwing and jumping.
- The word equation for anaerobic respiration is:

glucose ➡ energy + lactic acid

- Lactic acid occurs in the muscles and is a by-product of anaerobic respiration that can lead to short term muscle soreness.

C

Excess Post-exercise Oxygen Consumption (EPOC)

Oxygen debt is the amount of oxygen that the performer was short of during the exercise.

Rapid and heavy breathing after exercise will return the body to a resting state and repay the oxygen debt.

Oxygen debt builds up rapidly as a result of anaerobic exercise

D

Sporting Examples of Aerobic Respiration

Marathon running, Long distance cycling, Long distance swimming

Sporting Examples of Anaerobic Respiration

Javelin, Shotput, Discus, Long Jump, Sprinting

Sporting Examples of where you would use both Aerobic and Anaerobic Respiration

These include most team based sports. An example:

Netball (Aerobic) General movement around the court in game play.

(Anaerobic) Short sharp movements such as Goal Shooter receiving the ball and taking a shot at pace

E

The recovery process from vigorous exercise

1. Cool down – maintain an increased breathing rate and blood flow.

2. Stretching - A thorough full body stretch will aid the removal of lactic acid and reduce the stiffness and soreness felt post exercise.

3. Rehydration and glycogen stores- Eating a high-carbohydrate meal will speed up the glycogen replacement, and should be done within 1 hour post exercise.

4. Ice Baths- Ice baths are a very popular recovery method. The cold water causes the blood vessels to tighten and drains the blood out of the legs.

5. Massage-Sports massage is a form of bodywork geared toward participants in athletics. It is used to help prevent injuries, to prepare the body for athletic activity.

1. Heart and circulatory

A

1. Heart rate - beats per minute
2. Stroke volume – blood pumped out per beat
3. Cardiac output = stroke volume x heart rate – amount of blood pumped out per minute
4. Maximum heart rate – 220 – age
5. Resting heart rate – lowest possible heart rate when you are inactive
6. Recovery rate – time taken for heart rate to get back to normal

B

Structure of the Heart:

- Left / Right Atriums – Upper Chambers
- Left / Right Ventricles – Lower Chambers
- The heart contains valves to prevent the backflow of blood
- Vena Cava – Vein that brings deoxygenated blood back to the right side of the heart.
- Aorta – Artery that takes oxygenated blood from the left side of the heart to the body tissues / cells.
- Pulmonary Artery – only artery in the body that carries deoxygenated blood. This artery takes the blood from the right side of the heart to the lungs.
- Pulmonary Vein – only vein in the body that carries oxygenated blood. This vein takes blood from the lungs and returns it to the left side of the heart.

C

Arteries:

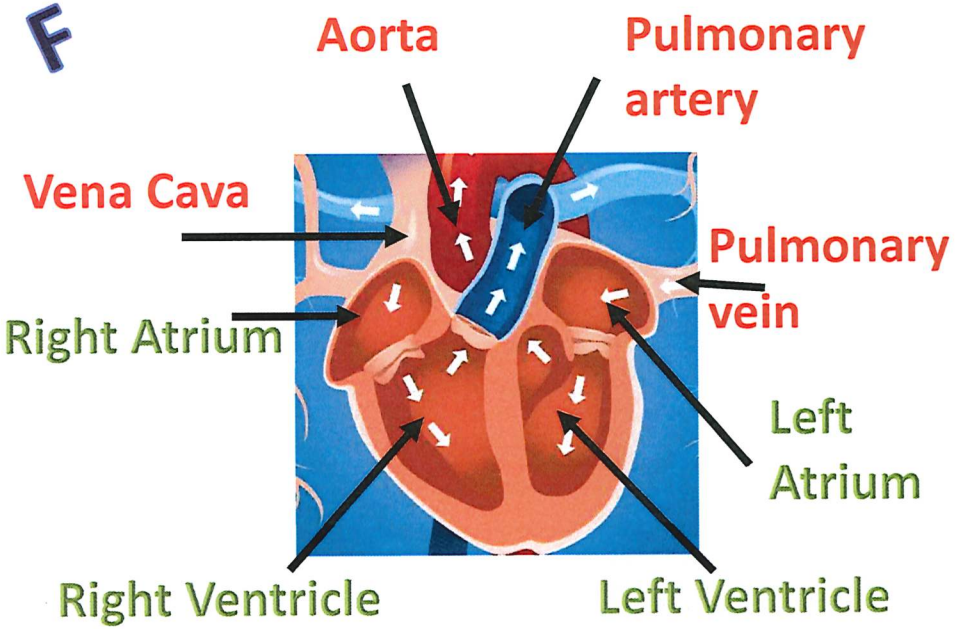
- Carry blood away from the heart.
- Most arteries carry oxygenated blood (oxygen rich).
- Thick walls to withstand the high blood pressure.
- Small / narrow lumen so that the blood is forced around the body at a high pressure.
- Strong elastic walls that can easily increase and decrease in diameter.

D

Veins:

- Veins carry blood towards the heart.
- Most veins carry deoxygenated blood (carbon dioxide rich).
- Thinner walls than arteries as the blood is pumped through at a low pressure.
- Due to the low pressure veins contain valves to prevent the backflow of blood.
- They also have a large lumen to allow more blood to pass through them

F



E

Capillaries:

- In Capillaries gaseous exchange takes place.
- Capillaries are one cell thick to enable substances to enter and leave the blood stream (allows rapid diffusion).
- Capillaries surround our alveoli and body tissues (e.g. muscles) to allow gaseous exchange to take place (the exchange of oxygen and carbon-dioxide).
- Huge network throughout the body linking arteries and veins (large surface area for gaseous exchange to take place).

G

Vasoconstriction / Vasodilation

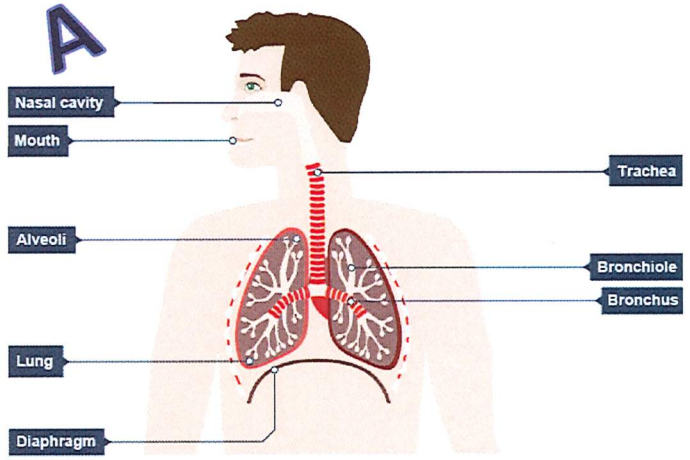
- Vasoconstriction and vasodilation work together to cause 'blood shunting' (the redistribution of blood around the body).
- Vasoconstriction is reducing the diameter of small arteries, so by reducing the blood flow to certain parts of the body.
- Vasodilation is increasing the diameter of small arteries to increase blood flow to certain parts of the body.
- This occurs during exercise. Vasoconstriction reduces blood flow to parts of the body not needed during exercise e.g. bladder / stomach, and that blood is redistributed to the muscles that are being used in the activity.
- Vasodilation occurs around the muscles so that more blood, carrying oxygen, can get to the muscles to create more energy. This will allow a performer to perform for longer and maintain their standard of play.

2) Respiratory System

B

Alveoli:
-These are small air sacs found in the lungs.
-This is were gaseous exchange takes place within the respiratory system.
-Oxygen enters the blood stream to be sent to the heart.
-Carbon dioxide replaces the oxygen (exchanged) in the alveoli so that it can be removed from the

A



C

Gas exchange at the alveoli is diffusion of carbon dioxide and oxygen. Oxygen combines with haemoglobin in the red blood cells to form oxyhaemoglobin. Haemoglobin can carry carbon dioxide.

D

	Breathing In	Breathing Out
Ribs	Intercostal muscles cause ribs to rise - Up and Out	Their weight causes the ribs to descend - Down and in
Chest Cavity	Chest cavity increases to allow for increased lung volume	Chest cavity decreases causing reduced lung volume
Lungs	Expand/inflate to allow for larger volume of air	Reduce/deflate causing air to exit the lungs
Muscles used at rest	Intercostal muscles and diaphragm contract to allow for breathing to take place. Diaphragm contracts and flattens.	Intercostal muscles and diaphragm relax to allow for breathing to take place. Diaphragm relaxes into a dome shape.
Muscles used when exercising	Sternocleidomastoid and pectorals contact to assist inspiration	Abdominals contract to assist expiration

ASH MANOR SCHOOL
Aspire & Achieve

GCSE PE Practical Sports Options

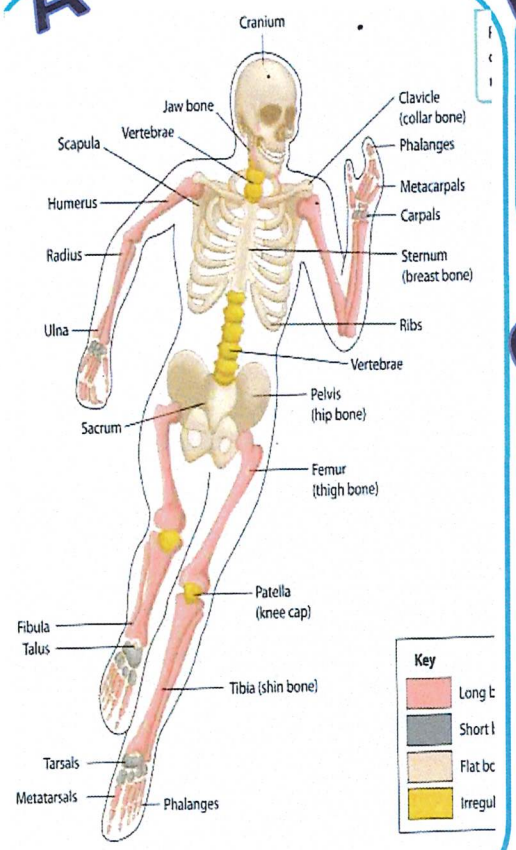
Your practical grade is made of one team activity, one individual activity and one choice from the team activities list **or** individual activities list.

Team activities			Individual activities		
Association football/futsal	**Badminton**	**Basketball**	Amateur boxing	**Athletics**	**Badminton**
Camogie	**Cricket**	**Dance**	Canoeing	Cycling	**Dance**
Gaelic football	Handball	Hockey	Diving	Golf	**Gymnastics**
Hurling	Lacrosse	**Netball**	Equestrian	Kayaking	**Rock climbing**
Rowing	**Rugby League**	**Rugby Union**	Rowing	Sculling	Skiing
Squash	**Table tennis**	**Tennis**	Snowboarding	Squash	Swimming
Volleyball	Sail		**Table tennis**	**Tennis**	**Trampolining**
Ice Hockey	Roller Hockey	Water Polo	Wind surfing	Acrobatic Gym	Figure Skating
Sailing			Sailing	BMX (races only)	

- Sports in bold and underlined you will be given the opportunity to experience and be assessed in GCSE PE teaching time
- Sports in just bold we are able to assess you in within school
- Sports that are not in bold or underlined you will have to provide video evidence for and perform outside of school.
- Assessment guidance and criteria can be found: https://filestore.aqa.org.uk/resources/pe/specifications/AQA-8582-SP-2016.PDF **Page 46 onwards.**

1. Skeletal System

A



B

Types of bone:

Long Bone-(humerus/ femur/ulna)
Short Bone-(carpals/ tarsals)
Flat Bone-(cranium/ sternum)
Irregular Bone-(vertebrae)

C

Functions of the Skeletal System:

- Support
- Protection of vital organs by flat bones
- Movement
- Structural shape and points for attachment
- Mineral storage
- Blood cell production.

D

Movement at a joint:

Flexion-decrease in the angle of the bones at a joint
Extension-increasing the angle of bones at a joint
Abduction- movement away from the body midline
Adduction- movement towards the body midline
Rotation- movement around an axis
Circumduction - turning or circular motion around a joint (which occurs in more than one plane).
Plantar flexion-pointing the toes at the ankle/increasing the ankle angle
Dorsi flexion- toes up at the ankle/ decreasing the ankle angle.

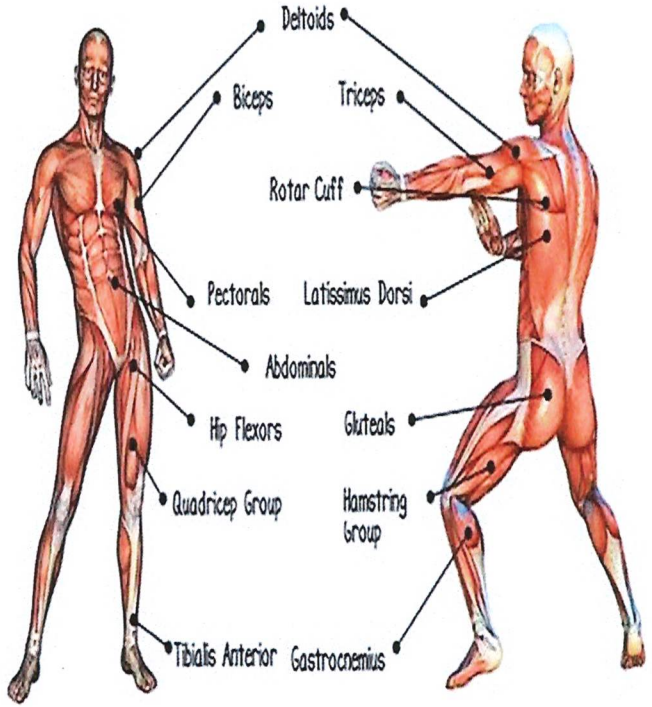
E

Components of a synovial joint

Articulating bones: Where two or more bones meet to allow movement at a joint
Synovial membrane: secretes synovial fluid
Synovial fluid: provides lubrication
Joint capsule: encloses/supports
Bursae: sacks of fluid to reduce friction
Cartilage: prevents friction/bones rubbing together
Ligaments: attach bone to bone.

2) Muscular System

F



G

Antagonistic pairs

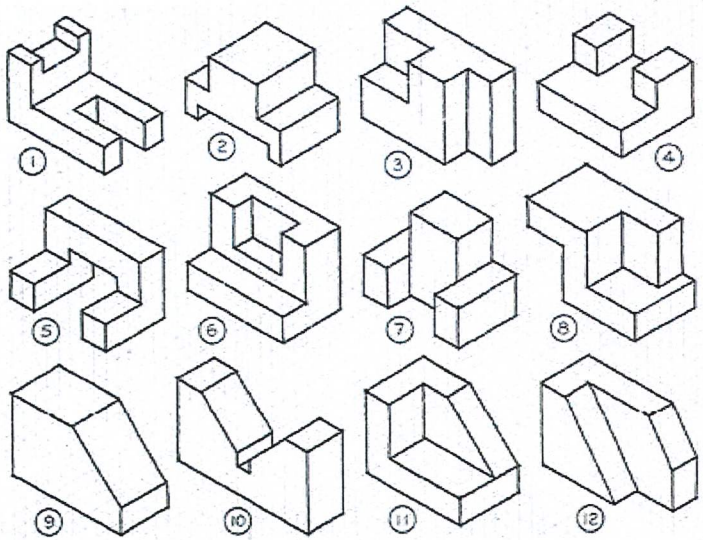
The body work antagonistically on the major joints of the skeleton to affect movement in physical activity at the major movable joints

Agonist (prime mover)- Muscle or group responsible for the movement. In the upwards phase of a bicep curl, the agonist muscle is the bicep.

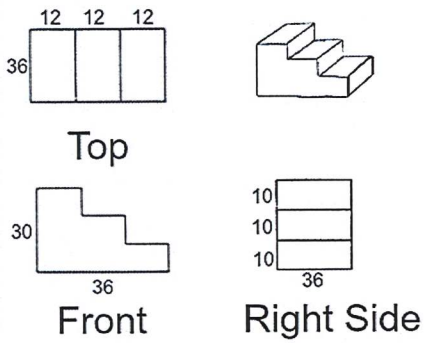
Antagonist- Acts to produce the opposite action to the agonist. They work in antagonistic pairs. In the upwards phase of a bicep curl the antagonist muscle is the tricep.

Product Design

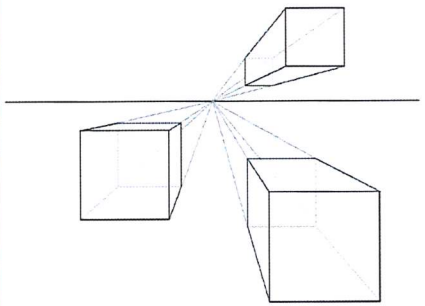
Isometric Drawing



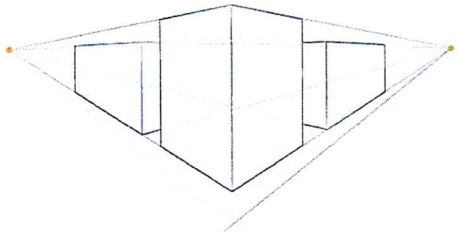
Orthographic Drawing



One Point Perspective



Two Point Perspective

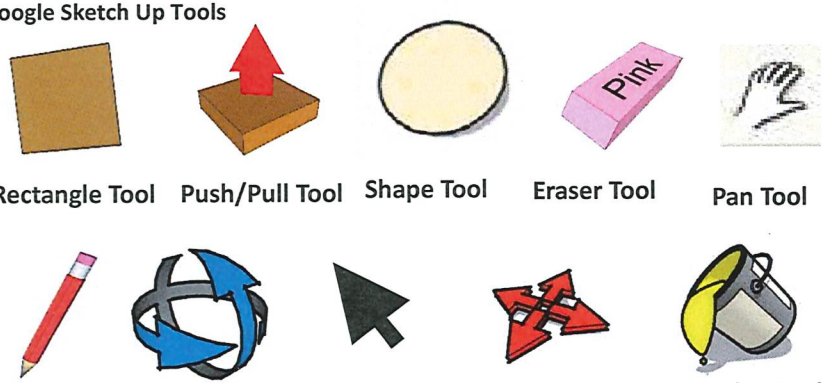


Research Types:
- Location Analysis
- Product Analysis
- Designer
- Design Movements
- Museum

Freehand Drawing

Light Sketch → Refine → Refine → Define

Google Sketch Up Tools



Rectangle Tool | Push/Pull Tool | Shape Tool | Eraser Tool | Pan Tool

Line Tool | Orbit Tool | Select Tool | Move Tool | Paint Bucket Tool

Key Words

Design Specification: This is a list of criteria that your design ideas should include.

Quality Control: The way in which you can ensure a product is good quality.

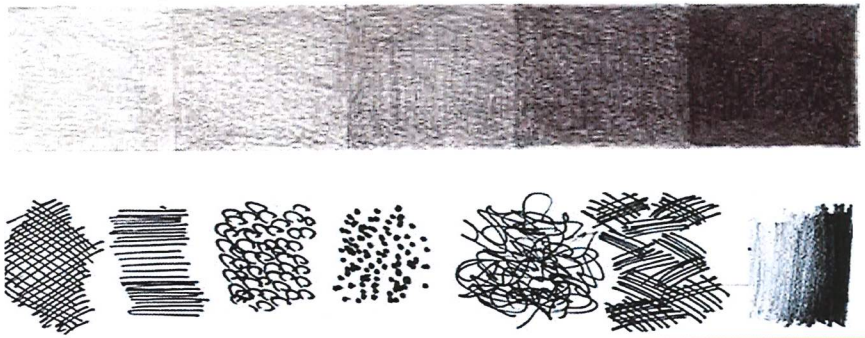
Hazard: An object or activity that could cause a risk (harm).

Risk: The harm/danger that is caused by the hazard.

Control: A way in which you can prevent the risk from happening.

Tone and Texture

Different marks/tones can be used to render a design idea to make it look 3D.



Product Design

Softwoods come **coniferous** trees. These trees are **evergreen** and grow all year round. They usually have thin spikey leaves and produce nuts

Softwoods	Key info	Uses/ Examples
Pine	Light, easy to work with but can split	Cheap furniture, construction and decking

Manufactured Boards are man-made using a mixture of natural timbers and adhesives

Board	Key info	Uses/ Examples
Plywood	Thin layers of wood are placed at 90 degrees from each other and glued. These angles prevents warping and helps strength	Indoor furniture, floorboards
Aeroply	Plywood made from birch. Thin and lightweight. Easy to bend.	Jewellery, gliders and furniture
Flexi-ply	The two outer layer of the plywood are made from open-grained timber, allowing it to flex.	Laminated furniture and curved panels
Chipboard	Wood chips compressed with resin	Kitchen units, shelving and flat-pack furniture
MDF	Compressed wood dust/fibres with resin	Model making and furniture

Hardwoods come from **deciduous** trees. These trees loose their leaves, and stop growing, in winter and produce fruit and flowers in spring.

Hardwood	Key info	Uses/ Examples
Oak	Hard, tough and good weather resistance. Attractive grain.	Furniture, flooring, joinery

Wood Finish

Varnish	Water-Based Paints	Stains	Colour Wash	Wax	Yacht Varnish	Danish Oil	Teak Oil	Pressure Treating

Annotating
All of your work must be accompanied by a brief annotation.

WHAT
What have you done?
What was your inspiration?

HOW
How did you come up with your ideas?
How did you create the piece?
How does the piece link to your artist/designer?

WHY
Why did you make the piece, how does it link to the project?
Why did you make the piece that way?

WWW/EBI
What has gone well?
What can be improved?
Which is the best one and why?

NEXT –
Your next steps are...?

When analysing or researching use **ACCESS FM:**

- **Aesthetics** – Shape, appearance, features, colours, design.
- **Cost** – How expensive is it/does it look/would it cost to make?
- **Customer** -How it is an effective product in relation to the user
- **Environment** – How environmentally friendly is it?
- **Safety** – Is it safe to use, was it dangerous to make?
- **Size** – Dimensions, proportions
- **Function** – What will it be used for? Is it suitable for it's intended use?
- **Materials** – What materials are used & are they suitable?

Writing about the work of other artists/ designers:

Paragraph 1 - Introduction
This should be brief. Look at their work and research key information about them to provide a contextual context.
• Nationality
• Dates - Are they contemporary or from a key historical movement
• Notable pieces of work and or style Avoid referring them by their first name, use a full name or surname.
Avoid irrelevant or uninteresting information.

Paragraph 2 - Form
1. Select one particular pieces to explore in detail.
2. Describe what you see as if explaining it to someone over the telephone.
3. Consider the formal element of line, shape, tone/value, colour, space, etc.

Paragraph 3 - Context
- What is the piece inspired by?
- How can you tell?
- How does the artist/designer link to your project?

Paragraph 4 - Opinion
Give your thoughts and feelings about their work.
What is effective about the artwork and would you change anything? Explain why.

Paragraph 5 - Inspiration
What will you take away as inspiration for your own work? How might you respond?

AQA Religious Studies A – Theme A: Relationships and Families

Key Words			
Adultery	Having sex with someone who is not your husband or wife, outside of marriage	Gender Prejudice	Holding biased opinions about people based on their gender
Artificial Contraception	Methods of preventing pregnancy e.g. condoms, the pill, the coil	Heterosexual	Sexual attraction to the opposite gender
Cohabitation	Living and starting a family with someone who you are not married to	Homosexual	Sexual attraction to the same gender
Divorce	The legal ending of a marriage	Marriage	A legal and religious ceremony joining two people together in love
Family Planning	Using a woman's natural cycle of fertility to try and avoid pregnancy	Procreation	Bringing babies into the world
Gender Discrimination	Acting against people based on their gender	Remarriage	Marrying someone else after divorce

Key Ideas

Religious Views on Sexuality

Sexual Orientation

- The Roman Catholic church teaches that sex between people of the same gender is 'disordered'
- They argue that **homosexual** relationships are banned by the Bible
- Liberal Christians teach that Jesus wanted people to love each other and show **mercy** and that we should be accepting of homosexuals
- **Gay marriage** is banned in the Catholic Church and Church of England

"Do not have sexual relations with a man as one does with a woman" – Leviticus 18:22

Adultery and Sex Outside Marriage

- Roman Catholics argue that all **sex before marriage** and after a divorce is unacceptable. Sex should only take place inside a marriage which is a lifelong, loving relationship.
- **Adultery** means the act of having sex with someone who is not your husband or wife.
- It is prohibited by the Bible and Christians argue it is wrong as it undermines marriage involves lies and secrecy.

"You shall not commit adultery" - Exodus 20:14

Artificial Contraception

- **Artificial contraception** means using something to stop yourself from getting pregnant. This could be a condom, the pill or a device like the coil.
- **Family planning** means using the natural cycle of fertility which women go through to predict when a woman would be least fertile. It is much less effective than artificial contraception.
- God tells Adam and Eve (the first couple) to *"be fruitful and multiply"* (Genesis 1:2) which encourages them to have children.

☒ The ***Catholic Church*** argues that all sexual acts inside marriage must be open to **procreation** (having babies) and that a baby is a gift from God. They may use family planning as it is a natural method.
☑ The ***Church of England*** argues that contraception should be allowed so that couples can take time and consider if they want to have children.

Marriage and Divorce

- **Marriage** is a religious and legal ceremony in which two people make **vows** (promises) in front of their friends and family and (if in a church) in front of God
- During the ceremony you agree to be **together for life** saying *"til death do us part"* (Marriage Ceremony)
- **Divorce** is the legal break-up of a marriage. It is **legal** in the UK and many marriages currently end in divorce.
- Many Christians do not like it as it is seen to **break the promises** made in a marriage.

☒ The ***Catholic Church*** do not support divorce. They believe that sex after divorce is a form of adultery and you cannot get remarried in a Catholic Church once you have been divorced. Jesus says *"if a man divorces his wife [...] he involves her in adultery"* (Matthew 5:32)
☑ The ***Church of England*** accepts divorce, especially if it is for reasons of abuse but you have to receive special permission to get remarried in a church. They might see it as a merciful option.

Family

Types of Family

- **Nuclear Family** is a family with a mother, father and children – some Christians argue this is the ideal
- **Extended Family** is a family where grandparents and other relatives are involved
- **Single Parent Family** this is a family where one parent brings up the child

Purpose of the Family

- **Procreation** – the family should be for the purpose of having and bringing up children
- **Stability** – the family should be for providing a secure, stable environment for children
- **Faith** – the family should be a way of bringing children up as good Christians

Gender

- **Gender equality** means that men and women should be equal and given the same rights and opportunities as each other
- In the UK women can face gender **prejudice and discrimination** where they are not treated equality
- The **Catholic Church** argues that women have a special role as mothers and they do not allow women to be priests
- The **Church of England** has allowed women priests since 1994

AQA Religious Studies A – Theme B: Religion and Life

Key Words			
Abortion	The ending of a pregnancy	Liberal	A type of Christian who reads the Bible as stories, myths and metaphors
Big Bang Theory	Scientific theory of the creation of the universe through a large explosion	Literalist	A type of Christian who believes the Bible is literally true + the word of God
Dominion	The power humans have over God's creation	Natural Resources	Materials found in nature (e.g. coal, oil) which are exploited by humans
Euthanasia	The painless killing of a terminally ill patient	Purgatory	Where Catholics believe souls are purified after death + before heaven
Evolution	Scientific theory of the development of humans from apes	Quality of Life	How easy or difficult someone's life is – e.g. cancer causes a low quality of life
Heaven	Paradise where those judged good go after death to be forever with God	Sanctity of Life	The belief that all life is sacred as man is made in God's image
Hell	Damnation where those judged bad go after death to be forever without God	Stewardship	The responsibility God gave humans to look after the world
Judgement	After death Christians believe you are judged by God	Vegetarian	The choice not to eat animals

Key Ideas		
Ideas about Creation 	**Christian Ideas** - Christians believe the universe was designed and made by God - The creation story in **Genesis 1** says that God made the world in six days - **Literalist Christians** believe this is true and that God created Adam + Eve from whom all humans come - **Liberal Christians** say the creation story in the Bible is just a story and may agree with scientific ideas about creation *"In the beginning God created the heavens and the earth" – Genesis 1:1*	**Scientific Ideas** - The **Big Bang Theory** argues that the universe started as a dense collection of mass which massively expanded creating stars, galaxies and planets - The **Theory of Evolution** comes from Charles Darwin who observed that animals change over time and argued that humans were not designed by God but evolved from apes - These theories do not fit with a **literalist Christian's** view but could fit with a **liberal** view
Stewardship + Dominion 	**Stewardship** - **Stewardship** means Christians have a **duty** to look after the environment on behalf of God and for future generations - This can be seen where Christians campaign for environmental charities or choose to reduce waste and recycle *"Rule over [..] every living creature" - Genesis 1:28*	**Dominion** - **Dominion** is the idea that God gave humans power and authority over the world - Some Christians believes this allows them to use **natural resources** (e.g. oil and coal) and animals to make their lives better - In **Genesis** God gives Adam and Eve the power to name the animals and rule over them
Abortion 	- **Abortion** is the removal of a foetus from the womb in order to end a pregnancy. - In the UK (except Northern Ireland) it is **legal** during the first 24 weeks of pregnancy unless the mother's life is in danger or the foetus is severely deformed. ☒ The ***Catholic Church*** is strongly against abortion. They believe in **sanctity of life**, the idea that life is a sacred gift from God which only God can take away. They see the foetus as a living thing. ☑ The ***Church of England*** think abortion is sometimes acceptable as a pregnancy as a result of rape or where the child would be very ill would lead to a very poor **quality of life**	
Euthanasia 	- **Euthanasia** is the painless killing of a patient with a terminal illness. - **Voluntary** euthanasia is where the patient asks for their life to be ended. - **Non-voluntary** euthanasia is where the patient is not capable of asking to die, perhaps in a coma. - All forms of euthanasia are currently **illegal** in the UK. ☒ The ***Catholic Church*** is strongly against euthanasia. They believe that only God can give and take life and that life is sacred (**sanctity of life**) ☑ Some ***liberal Christians*** think euthanasia can be an act of mercy which Jesus tells them is a good thing to do, this is especially the case when someone's **quality of life** is very poor.	
The Afterlife 	- Christians believe that when you die you will be judged and that those who are found to be good will go to **heaven** but those who have sinned and gone against God's wishes will go to **hell**.	
	Roman Catholics believe that there is a middle stage called **purgatory** where souls go to be purified of sin before they go to heaven	**Some Christians** believe that Jesus will return on a future **Day of Judgement** when all souls will be judged

- ***Acids produce hydrogen ions (H^+) in aqueous solutions.***
- **Alkalis are *aqueous solutions which contain hydroxide ions (OH^-).***

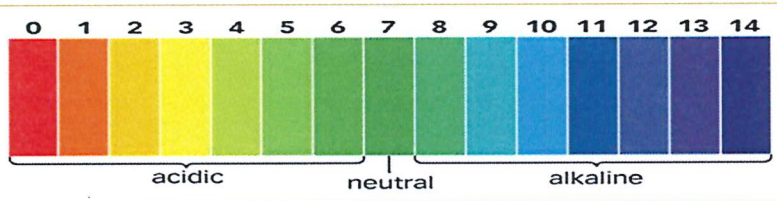
YEAR 10 CHEMISTRY-
Acids

The pH scale and neutralisation

Acids can be neutralised by alkalis and bases An **alkali** is a soluble base e.g. metal hydroxide. A **base** is a substance that neutralises an acid e.g. a soluble metal hydroxide or a metal oxide.

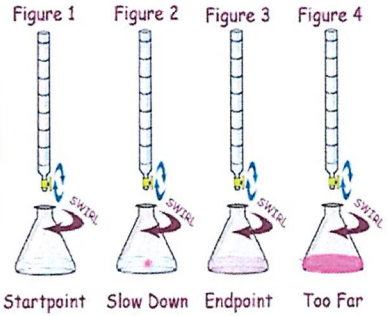
In neutralisation reactions, hydrogen ions react with hydroxide ions to produce water: $H^+ + OH^- \rightarrow H2O$

You can use universal indicator or a pH probe to measure the acidity or alkalinity of a solution against the pH scale



Strong acid	**Completely dissociates in aqueous solution**
Weak acid	**Only partially dissociated in aqueous solution**
Hydrogen ion concentration	As the pH decreases by one unit the hydrogen ion concentration increases by a factor 10

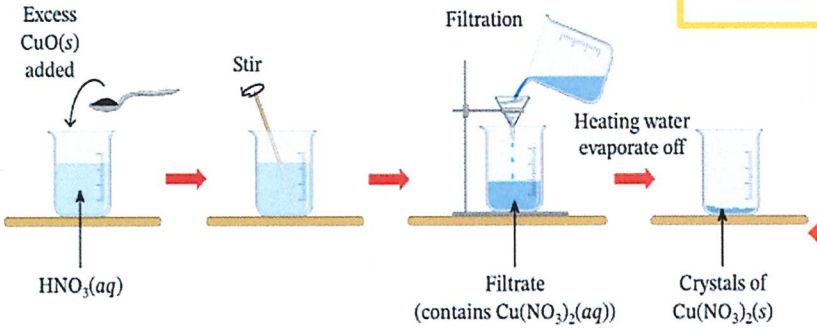
Titration: core practical



Acid	Salt formed
Hydrochloric acid	chloride
Sulphuric acid	sulphate
Nitric acid	nitrate

Common acids	Formula
hydrochloric	HCl
sulfuric	H_2SO_4
nitric	HNO_3
Common alkalis	**Formula**
sodium hydroxide	NaOH
potassium hydroxide	KOH
calcium hydroxide	$Ca(OH)_2$

Preparation of soluble salts: core practical

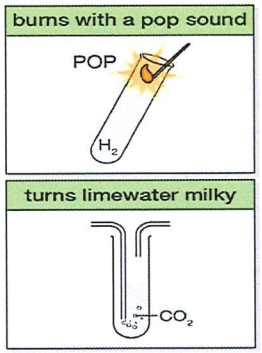


Examples of reactions of acids to make salts:

- sodium hydroxide + hydrochloric acid → sodium chloride + water
- zinc + sulfuric acid → zinc sulfate + hydrogen
- calcium carbonate + sulfuric acid → calcium sulfate, + carbon dioxide + water

Corrosive

Irritant



Soluble in water	Insoluble in water
All nitrates	
Most chlorides	Silver and lead chlorides
Most sulphates	Lead, barium and calcium sulphates
All common sodium, potassium and ammonium salts	
Sodium, potassium and ammonium carbonates	Most carbonates
Sodium, potassium and ammonium hydroxides	Most hydroxides

YEAR 10 CHEMISTRY
Electrolysis and Extracting metals

Electrolysis

The ions discharged when an aqueous solution is electrolysed using inert electrodes depend on the relative reactivity of the elements involved.

Electrolysis of aqueous solutions

At the negative electrode	Metal will be produced on the electrode if it is less reactive than hydrogen. Hydrogen will be produced if the metal is more reactive than hydrogen.
At the positive electrode	Oxygen is formed at positive electrode. If you have a halide ion (Cl^-, I^-, Br^-) then you will get chlorine, bromine or iodine formed at that electrode.

Process of electrolysis	***Splitting up using electricity***	When an ionic compound is melted or dissolved in water, the ions are free to move. These are then able to conduct electricity and are called electrolytes. Passing an electric current though electrolytes causes the ions to move to the electrodes.
Electrode	***Anode*** ***Cathode***	The positive electrode is called the anode. The negative electrode is called the cathode.
Where do the ions go?	***Cations*** ***Anions***	Cations are positive ions and they move to the negative cathode. Anions are negative ions and they move to the positive anode.

You can display what is happening at each electrode using half-equations:

At the cathode: $Pb^{2+} + 2e^- \rightarrow Pb$

At the anode: $2Br^- \rightarrow Br_2 + 2e^-$

Extracting metals using electrolysis

Metals can be extracted from molten compounds using electrolysis.

This process is used when the metal is too reactive to be extracted by reduction with carbon.

The process is expensive due to large amounts of energy needed to produce the electrical current.
Example: aluminium is extracted in this way.

Extraction of Metals

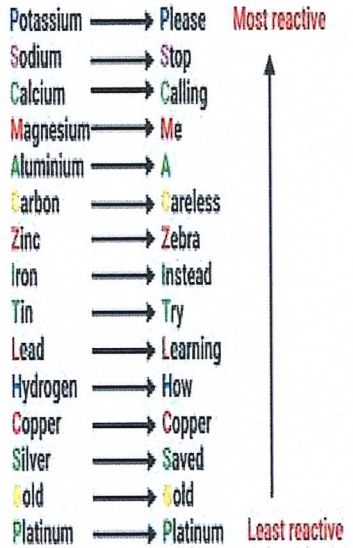
An ore is a rock which contains a metal that can be extracted

REDOX

Oxidation is loss of e-

REDuction is gain of e-

Reactivity series



Higher: An **ionic equation** shows only the atoms and ions that change in a reaction: **$Fe(s) + Cu^{2+}(aq) \rightarrow Fe^{2+}(aq) + Cu(s)$**

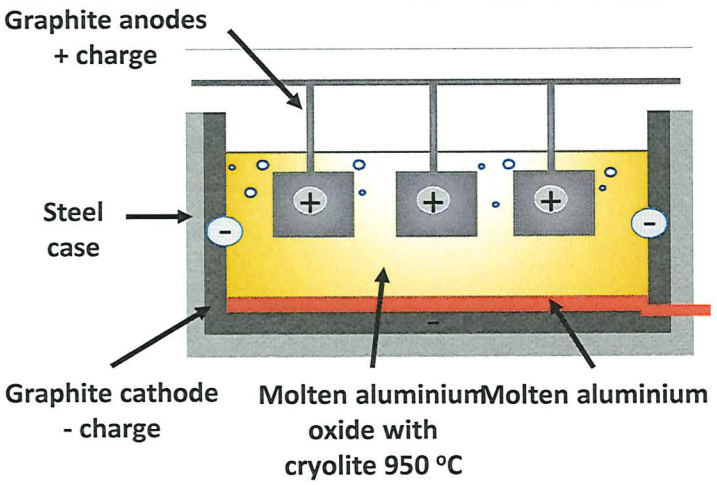
Half equations show what happens to each reactant:

$Fe \rightarrow Fe^{2+} + 2e^-$ **(Iron has been oxidised because it has lost 2 electrons)**

$Cu^{2+} + 2e^- \rightarrow Cu$ (Copper has been reduced because it gained 2 electrons)

YEAR 10 CHEMISTRY-TRIPLE
Electrolysis and Extracting metals

Metals can be extracted from **molten compounds** using electrolysis.
It is used if the metal is too reactive to be extracted by reduction with carbon or if the metal reacts with carbon.
Large amounts of **energy** are used in the extraction process to melt the compounds and to produce the electrical current.
Aluminum is manufactured by electrolysis of molten aluminum oxide.
aluminium oxide → aluminium + oxygen



Aluminium oxide has a very **high melting point** so is mixed with molten **cryolite** to lower the temperature required to carry out the electrolysis.
Aluminium goes to the negative electrode and sinks to bottom.
Higher: $Al^{3+} + 3e^- \rightarrow Al$
Oxygen forms at positive electrodes.
Higher: $2O^{2-} \rightarrow O_2 + 4e^-$
The oxygen reacts with the carbon electrode making carbon dioxide and causing damage.
The electrode needs **replacing** due to this reaction.
$C + O_2 \rightarrow CO_2$

Extraction of Metals

The lower the position of a metal in the reactivity series, the easier it is to extract.

Potassium, Sodium, Calcium, Magnesium, Aluminium	Extract through Electrolysis
(Carbon), Zinc, Iron, Tin, Lead	Extract by burning with carbon
Copper	Extract by burning in air
Silver, Gold	Occur native in the ground

When metals react with other substances the metal atoms form **positive ions** called **CATIONS**.

The reactivity of a metal is linked to its tendency to form cations.

The **non-metals hydrogen** and **carbon** are often included in the series as they can be used to extract less reactive metals.

metal + acid → salt + hydrogen

Phytomining uses **plants** to **absorb metal compounds** (often from the waste from previous mining). The plants are harvested and then burned to produce ash that contains metal compounds.

Bioleaching uses **bacteria** to produce **leachate solutions** that contain (dissolved) **metal compounds**. The metal compounds can be processed to obtain the metal. For example, copper can be obtained from solutions of copper compounds by displacement using scrap iron or by electrolysis.

The periodic table of the elements

1	2											3	4	5	6	7	0
							1 H hydrogen 1										4 He helium 2
7 Li lithium 3	9 Be beryllium 4											11 B boron 5	12 C carbon 6	14 N nitrogen 7	16 O oxygen 8	19 F fluorine 9	20 Ne neon 10
23 Na sodium 11	24 Mg magnesium 12											27 Al aluminium 13	28 Si silicon 14	31 P phosphorus 15	32 S sulfur 16	35.5 Cl chlorine 17	40 Ar argon 18
39 K potassium 19	40 Ca calcium 20	45 Sc scandium 21	48 Ti titanium 22	51 V vanadium 23	52 Cr chromium 24	55 Mn manganese 25	56 Fe iron 26	59 Co cobalt 27	59 Ni nickel 28	63.5 Cu copper 29	65 Zn zinc 30	70 Ga gallium 31	73 Ge germanium 32	75 As arsenic 33	79 Se selenium 34	80 Br bromine 35	84 Kr krypton 36
85 Rb rubidium 37	88 Sr strontium 38	89 Y yttrium 39	91 Zr zirconium 40	93 Nb niobium 41	96 Mo molybdenum 42	[98] Tc technetium 43	101 Ru ruthenium 44	103 Rh rhodium 45	106 Pd palladium 46	108 Ag silver 47	112 Cd cadmium 48	115 In indium 49	119 Sn tin 50	122 Sb antimony 51	128 Te tellurium 52	127 I iodine 53	131 Xe xenon 54
133 Cs caesium 55	137 Ba barium 56	139 La* lanthanum 57	178 Hf hafnium 72	181 Ta tantalum 73	184 W tungsten 74	186 Re rhenium 75	190 Os osmium 76	192 Ir iridium 77	195 Pt platinum 78	197 Au gold 79	201 Hg mercury 80	204 Tl thallium 81	207 Pb lead 82	209 Bi bismuth 83	[209] Po polonium 84	[210] At astatine 85	[222] Rn radon 86

Key

relative atomic mass
atomic symbol
name
atomic (proton) number

**** The elements with atomic numbers from 58 to 71 are omitted from this part of the periodic table.***

The relative atomic masses of copper and chlorine have not been rounded to the nearest whole number.

Year 10 Biology

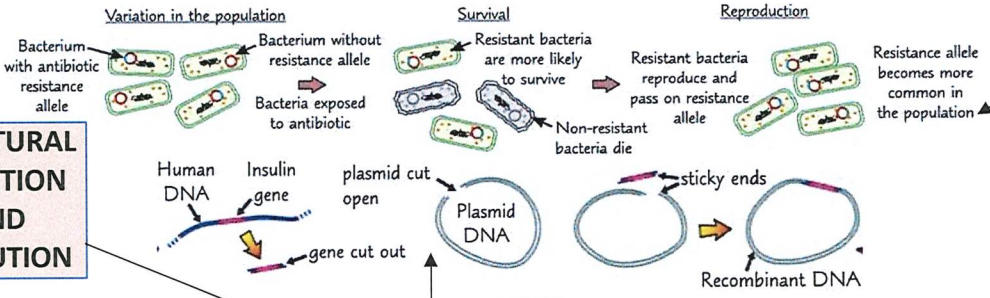
B4 NATURAL SELECTION AND EVOLUTION

Evidence for human evolution

Fossils	*Stone tools*
Ardipithecus ramidus 'Ardi' from 4.4 million years ago	Earliest simple stone tools from 3.3 million years ago.
Australopithecus afarensis 'Lucy' from 3.2 million years ago	The age of different layers of rock can be dated. Stone tools found in those layers are the same age.
Leakey's discovery of *Homo habilis* from1.6 million years ago	

Charles Darwin — *Theory of evolution by natural selection.*

- Individual organisms within a particular species show a wide range of variation for a characteristic.
- Individual most suited to the environment are more likely to breed successfully.
- Characteristics enable individuals to survive are then passed on to the next generation.



Antibiotic resistant bacteria — *Mutations produce antibiotic resistant strains which can spread*

- Resistant strains are not killed.
- Strain survives and reproduces.
- People have no immunity to strain and treatment is ineffective.

Genetic engineering

Modification of the genome of an organism to introduce desirable characteristics

Selective Breeding

Selective breeding

Choosing parents with the desired characteristics from a mixed population

Chosen parents are bred together.

⇩

From the offspring those with desired characteristics are bred together.

⇩

Repeat over several generations until all the offspring show the desired characteristics.

Desired characteristics are chosen for usefulness appearance

Risks and benefits (practical and ethical)

Genetic engineering	**Risks:** Seeds from GM plants can be very expensive. Some people think eating GM plants is bad for health although there is no evidence to support this view.
	Benefits: decreased use of herbicide with increase in yield from food crops. Medicines tailored for individuals.
Selective breeding	**Risks:** alleles that may be useful in future may be lost. Populations with low variation can be vulnerable to genetic diseases.
	Benefits: Increased growth and yield of plants and animals for food.

Classification of living organisms

Carl Linnaeus classified living things

Kingdom	Animalia
Phylum	Chordata
Class	Mammalia
Order	Primates
Family	Hominidae
Genus	*Homo*
Species	*sapiens*

The five kingdoms are animals, plants, fungi, protista, prokaryotes

Carl Woese

3 domains instead of kingdoms based on genetic analysis.

Archaea (primitive bacteria), true bacteria, eukaryota.

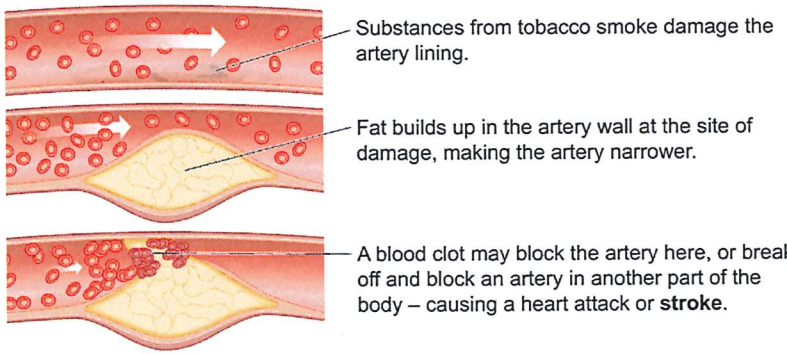
Year 10 Biology

Cardiovascular disease

B5 HEALTH AND DISEASE

Pathogens, spreading pathogens & physical and chemical barriers

Smoking and heart disease



Damage to blood vessels by substances from tobacco smoke can cause the uild-up of fat in an artery.

Obesity

Waist-to-hip (waist:hip) ratio:
Waist circumference ÷ hip circumference

$$BMI = \frac{mass}{height^2}$$

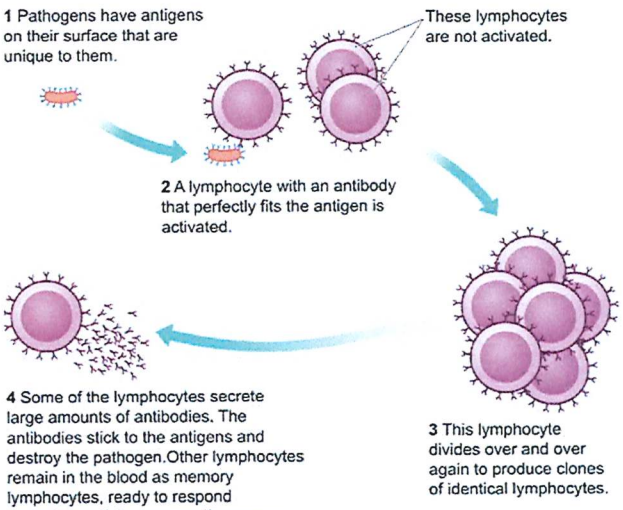
BMI Categories
Underweight : under 18.5
Normal: 18.5 – 25
Overweight: 25 – 30
Obese: over 30

Disease	Effect	Disease causing organism	Transmission
Cholera	Causes diarrhoea	Bacteria	Water
Chalara ash dieback	Causes leaf loss and bark lesions	Fungi	Airborne
Malaria	Causes damage to blood and live	Protists	Animal vectors
Tuberculosis	Causes lung damage	Bacteria	Airborne

STIs

HIV/AIDS – Virus
Chlamydia – bacteria
Prevented though avoiding contact with sexual fluids, such as using a condom as an artificial barrier during sexual intercourse

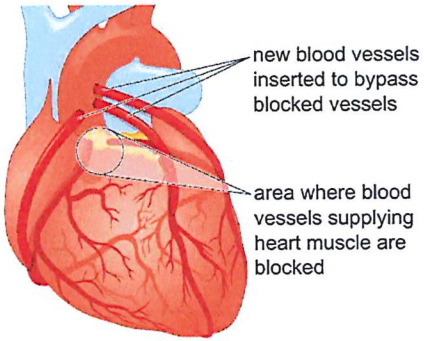
Immune response



Physical barrier	Chemical barrier
Barrier that pathogen needs to penetrate	Substances which defend from pathogens
E.g. skin	E.g. lysozyme (an enzyme that breaks down cell walls of some bacteria

Treating cardiovascular disease

- ***High blood pressure*** **– exercise more and give up smoking (medicines may be used if blood pressure is very high)**
- **A narrowed blood vessel my be widened by inserting a small mesh tube (*stent*)**
- **Blocked arteries can be bypassed by inserting other blood vessels**



D Blocked blood vessels can be bypassed by inserting new blood vessels.

Year 10 Biology - Triple

Making new proteins (protein synthesis) transcription and translation

Composed of chains of amino acids. A sequence of 3 bases (codon) codes for a particular amino acid.

RNA polymerase binds to non-coding DNA located in front of a gene.

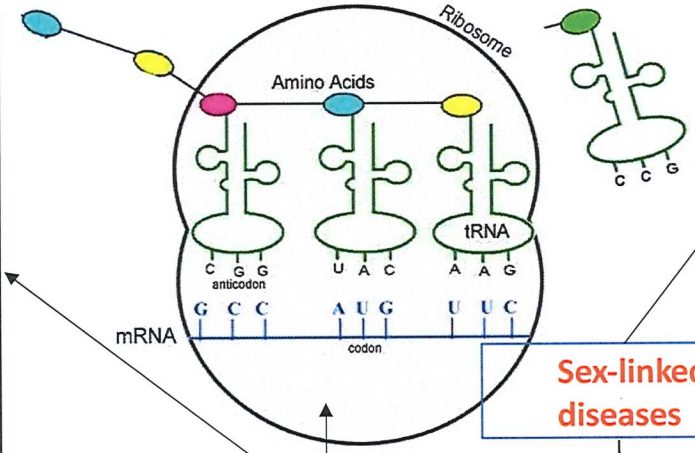
RNA polymerase produces a complementary mRNA strand from the coding DNA of the gene.

mRNA moves from the nucleus and attaches to a ribosome in the cytoplasm.

Ribosomes translate each triplet of bases (codons) into specific amino acids according to mRNA template

Amino acids are transferred to the ribosome by tRNA.

Amino acids are linked together to form polypeptides.



Protein Synthesis

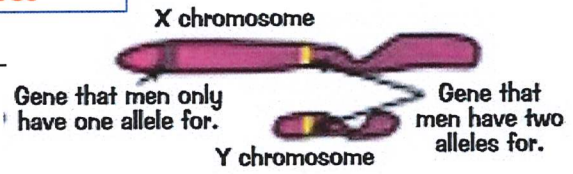
B3 and B4 Triple

Sex-linked diseases

Some disorders are inherited on the chromosomes that determine sex (sex linked genetic disorders)

Colour blindness in men.

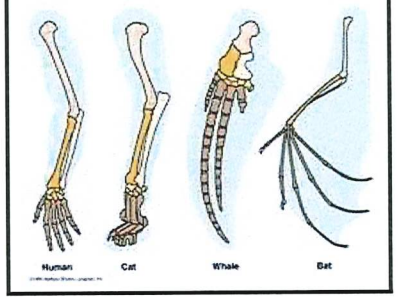
The X chromosome carries one normal or one faulty allele (the normal is dominant). The shorter Y chromosome does not carry the allele and so X chromosome allele is always expressed in men.



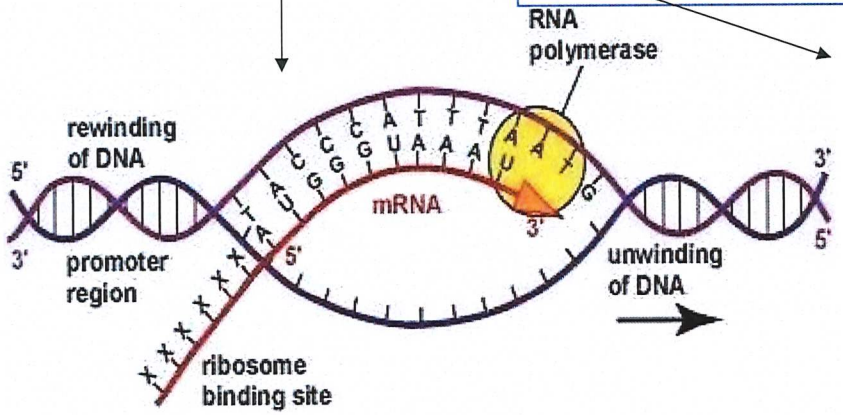
Evidence for evolution from anatomy

The pentadactyl limb

Darwin suggested that the five finger (pentadactyl) limb found across many vertebrates suggest a common ancestor.



Codominance



Blood groups

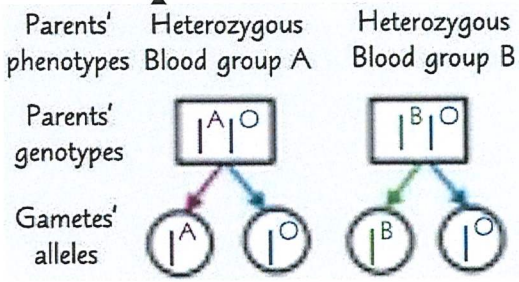
Determined by multiple alleles (A,B,O) and codominance

AO, AA blood group A

BO, BB blood group B

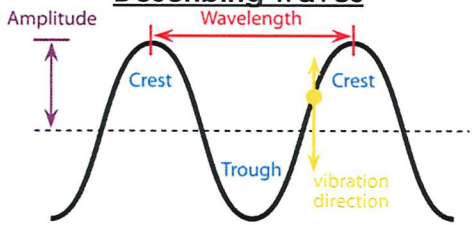
OO blood group O

AB blood group AB. A and B are codominant



Waves

Describing waves



Amplitude (m) – maximum displacement rest point.

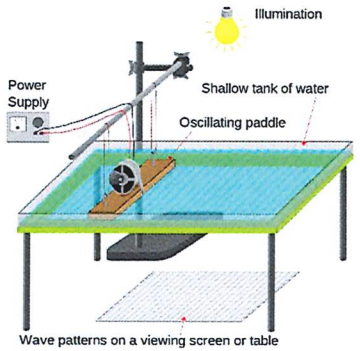
Wavelength (m) – distance from the point on one wave to the next.

Frequency (Hertz, Hz) – number of waves per second. A frequency of **5Hz** means there are 5 complete waves passing a point in 1 second. **Frequency = 1 ÷ time period (s)**

Time period (T) is the time taken to complete one wavelength.

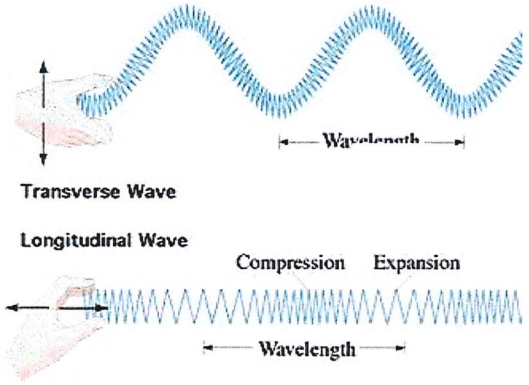
Wave Speed (m/s) – speed at which the energy transfers through a media.
Wave speed = frequency x wavelength
v = f x λ

Ripple Tank



Transverse waves

Vibrations are **perpendicular** to the direction of energy transfer. E.g. Light

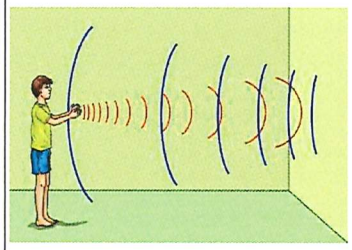


Longitudinal wave

Vibrations are **parallel** to the direction of energy transfer. E.g. sound.

Compression is an area when the particles are bunched up.

Rarefaction is when the particles are spread out.



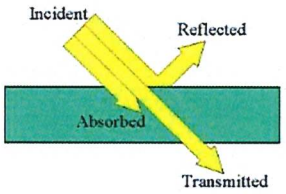
An **echo** is a reflection of the sound wave. However, remember the distance travelled is 2x the distance to the wall!

To work out a sounds speed;

Speed (m/s) = distance (m) ÷ time (s)

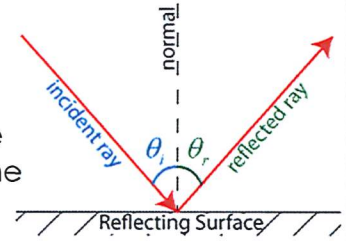
Reflection and refraction of waves

Waves can **reflected** or **absorbed** or **transmitted** at a boundary between two different media.



Reflection

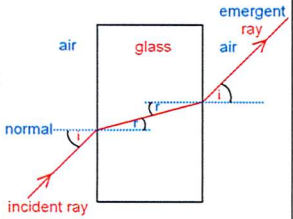
The dashed line represents the **normal**. It is drawn at 90° to the boundary and is the line from which all angles are measured.



Law of reflection

Angle of incidence (i) = angle of reflection (r).

Refracted:
A wave changes direction when it enters a different medium. The glass block above is **denser** than the air, so the light slows down and bends towards the normal. The **refracted angle (r)** and is smaller than the **incident angle (i)**. Light exiting the block returns the speed it enters. Bending away from the normal with a larger refracted angle in comparison to the incident angle.



The **direction** of refraction depends on:
- **Angle** it hits the boundary
- The **density** of the material.

Higher **density** materials slow down the wave.

Electromagnetic Waves

Increasing energy/Increasing frequency/ decreasing wavelength

Similarities

- transverse waves
- travel at the speed of light
- travel through a vacuum

ENERGY

"OSCILLATIONS"

Differences

- frequency
- wavelength
- amount of energy transferred

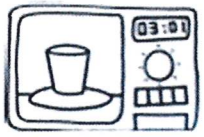
Radio waves

- low frequency, low energy, long wavelength

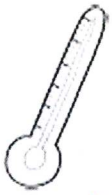
- used for TV and radio signals, and satellite communications

Micro waves

- used for mobile phone signals, and cooking



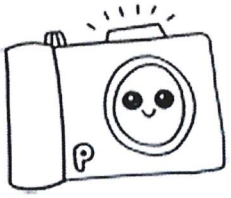
Infrared



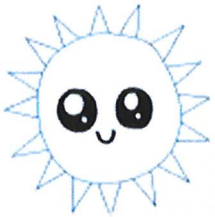
- felt as heat, used for thermal imaging cameras and night vision goggles

Visible light

- the only EM wave we can see, made up of seven colours



Ultraviolet



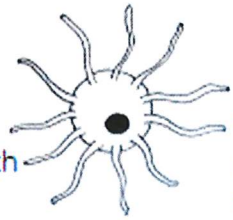
- used in tanning beds, can cause skin cancer
- Used in fluorescent scanning to detect

X-rays

- used to detect broken bones and in airport scanners to detect concealed weapons

Gamma rays

- high frequency, high energy, short wavelength



- can be focused to kill cancerous cells but prolonged exposure can cause cancer

Wavelength and speed affects how it is transmitted, absorbed, reflected or refracted by a media, and use.

Shorter wavelengths transfer more energy. This means they are harmful to living cells.

Ciudades *Cities*

Local area, Holiday, and Travel and **Identity and Culture**

¿Cuál es tu ciudad favorita? ¿Por qué te gusta?
What is your favourite city? Why do you like it?

Mi ciudad preferida es Estrasburgo ya que es tan hermosa. Hay tantos canales alrededor de la ciudad y la arquitectura gótica me da ganas de mudar para allá.

¿Cómo es la ciudad o el pueblo donde vives?
What is the town or city that you live in like?

Vivo en Aldershot, un pueblo mediano al suroeste de Londres. Mi pueblo es bastante tranquilo y hay unos parques, pero hay mucho tráfico por la mañana así que a veces es ruidoso.

¿Qué es mejor, vivir en la ciudad o en el campo? ¿Por qué?
Is it better to live in the city or in the countryside? Why?

A mí me encanta la tranquilidad del campo, pero hay tantas cosas que hacer en una ciudad. Por ejemplo, voy al centro comercial cada finde con mis amigos, pero en el campo solo hay aranias. ¡Qué aburrido!

¿Qué hay para turistas en tu zona?
What is there for tourists in your region ?

En mi zona hay muchos museos y monumentos históricos. También hay dos catedrales. ¡¿Te lo puedes creer?! Hay tantas turistas que vienen durante el verano y sacan muchas fotos. Pero por lástima, dejan mucha basura por las calles que destruye el medio ambiente.

¿Qué hiciste recientemente en tu zona?
What have you recently done in your region ?

La semana pasada fui a la charcutería con mi novio. Compramos un par de carnes especiales para el día de San Valentín. ¡Somos tan románticos juntos!

¿Cómo cambiarías tu zona?
How would you change your region?

Si fuera rica, compraría todos los edificios abandonados en el centro y los convertiría en apartamentos para los sin techo. Serían un lugar donde ir por si acaso la vida no ocurre como pensabas.

¿Qué haras en tu ciudad este fin de semana?
What will you do in town this weekend?

Este finde iré al polideportivo para nadar en la piscina climatizada al aire fresco. Será genial ya que me encanta hacer deporte acuático al exterior.

¿Dónde te gusta comprar? ¿Por qué?
What do you like to shop? Why?

Normalmente los lugares donde me gusta comprar más son los grandes almacenes porque hay tantas cosas que se pueden comprar. Sin embargo, las tiendas benéficas tienen tesoros escondidos que me encantan descubrir.

¿Adónde fuiste de compras la última vez y qué compraste?
Where did you go shopping last time and what did you buy?

La última vez que fui de compras, fui a Primark para comprar un nuevo vestido azul para la boda de mi prima. También compré unas medias blancas con unos zapatos azul marinos. Espero que hará buen tiempo.

Describe une visita que hiciste a una ciudad
Descrive a visit you have made to a city

Recientemente visité a Las Vegas en los Estados Unidos. Había tanta gente a conocer y lo pasé bomba gracias a los espectáculos variados.

Question you will ask:

Fancy Phrases:

PRESENTE

hablar *to speak*	**comer** *to eat*	**vivir** *to live*
habl-**o**	com-**o**	viv-**o**
habl-**as**	com-**es**	viv-**es**
habl-**a**	com-**e**	viv-**e**
habl-**amos**	com-**emos**	viv-**imos**
habl-**áis**	com-**éis**	viv-**ís**
habl-**an**	com-**en**	viv-**en**

The present tense is used to describe what you're doing at the present moment in time, e.g: "I am eating breakfast" or what you do routinely, e.g: "I eat breakfast every day".

PRESENTE CONTINUO

hablar *to speak*	**comer** *to eat*	**vivir** *to live*
estoy hablando	**estoy** comiendo	**estoy** viviendo
estás hablando	**estás** comiendo	**estás** viviendo
está hablando	**está** comiendo	**está** viviendo
estamos hablando	**estamos** comiendo	**estamos** viviendo
estáis hablando	**estáis** comiendo	**estáis** viviendo
están hablando	**están** comiendo	**están** viviendo

The present continous tense is used to indicate what is happening at the time of speaking, or when one action is happening at the same time as another. Estar+past participle

PARTICIPIO PRESENTE			**PARTICIPIO PASADO**		
-AR	-ando	hablando	**-AR**	-ado	hablado
-ER	-iendo	comiendo	**-ER**	-ido	comido
-IR	-iendo	viviendo	**-IR**	-ido	vivido

The present participle or gerund is recognised in English by the ending –ing .e.g. talking, eating, living.
To find the past participle of a verb in English, just imagine that the words 'I have' are in front of it. E.g. 'to eat' put 'I have' in front of it you would say 'I have eaten' so 'eaten'.

There is/are= hay
There was/were= había

In Spanish the infinitive **form of a verb always ends with the letter r and falls into three categories:**
1) those which end with -ar **(ar verbs) e.g.** ***hablar*** **= to speak**
2) those which end with -er **(er verbs) e.g.** ***comer*** **= to eat**
3) those which end with -ir **(ir verbs) e.g.** ***vivir*** **= to live**

For regular verbs in the present, preterite and imperfect tenses, you must first remove the -ar, -er **or** -ir **endings from the infinitive form of the verb, and then add the correspondent endings.**

FUTURO SIMPLE

nadar *to swim*	**beber** *to drink*	**abrir** *to open*
nadar-**é**	beber-**é**	abrir-**é**
nadar-**ás**	beber-**ás**	abrir- **ás**
nadar-**á**	beber-**á**	abrir-**á**
nadar-**emos**	beber-**emos**	abrir-**emos**
nadar-**éis**	beber-**éis**	abrir-**éis**
nadar-**án**	beber-**án**	abrir-**án**

The future tense is used to say what you will do in the future.

CONDICIONAL

nadar *to swim*	**beber** *to drink*	**abrir** *to open*
nadar-**ía**	beber-**ía**	abrir-**ía**
nadar-**ías**	beber-**ías**	abrir-**ías**
nadar-**ía**	beber-**ía**	abrir-**ía**
nadar-**íamos**	beber-**íamos**	abrir-**íamos**
nadar-**íais**	beber-**íais**	abrir-**íais**
nadar-**ían**	beber-**ían**	abrir-**ían**

The conditional is recognised in English by the use of the word "would" or sometimes "should", e.g. "I would swim"

FUTURO INMEDIATO (I am going to +Verb)

voy	a	trabajar	*I am going to work*
vas	a	estudiar	
va	a	beber	
vamos	a	comer	
vais	a	abrir	
van	a	vivir	

The immediate future tense can be used to express what is going to happen in the future. E.g. I am going to work, I am going to study, I am going to drink, I am going to eat....

Most verbs in Spanish have **six** forms which correspond to their respective pronouns and which will be listed in the following order:
1) **yo** (I)
2) **tú** (you-familiar a person you know well, a familiar relationship)
3) **él/ella/usted** (he/she/you-formal a person you don't know, a formal relationship)
4) **nosotros/nosotras** (we)
5) **vosotros/vosotras** (you-plural-familiar [only used in Spain])
6) **ellos/ellas/ustedes** (they/you-plural-formal [Spain]/you-plural [L. America])
It's **essential** that you get the **correct ending** for the person you're talking about in Spanish because **pronouns don't tend to be used in Spanish.**

PRETERITO

preguntar *to ask*	**comer** *to eat*	**escribir** *to write*
pregunt-**é**	com-**í**	escrib-**í**
pregunt-**aste**	com-**iste**	escrib-**iste**
pregunt-**ó**	com-**ió**	escrib-**ió**
pregunt-**amos**	com-**imos**	escrib-**imos**
pregunt-**ásteis**	com-**ísteis**	escrib-**ísteis**
pregunt-**aron**	com-**ieron**	escrib-**ieron**

The preterite is sometimes known as the simple past. It's used to talk about events in the past, e.g. I asked, I ate, I wrote.

IMPERFECTO

trabajar *to work*	**comer** *to eat*	**escribir** *to write*
trabaj-**aba**	com-**ía**	escrib-**ía**
trabaj-**abas**	com-**ías**	escrib-**ías**
trabaj-**aba**	com-**ía**	escrib-**ía**
trabaj-**ábamos**	com-**íamos**	escrib-**íamos**
trabaj-**ábais**	com-**íais**	escrib-**íais**
trabaj-**aban**	com-**ían**	escrib-**ían**

The imperfect tense is used for things that 'used to happen' or 'were happening' e.g.I worked, I used to work, I was working

PRESENTE PERFECTO

hablar *to speak*	**comer** *to eat*	**vivir** *to live*
he hablado	**he** comido	**he** vivido
has hablado	**has** comido	**has** vivido
ha hablado	**ha** comido	**ha** vivido
hemos hablado	**hemos** comido	**hemos** vivido
habéis hablado	**habéis** comido	**habéis** vivido
han hablado	**han** comido	**han** vivido

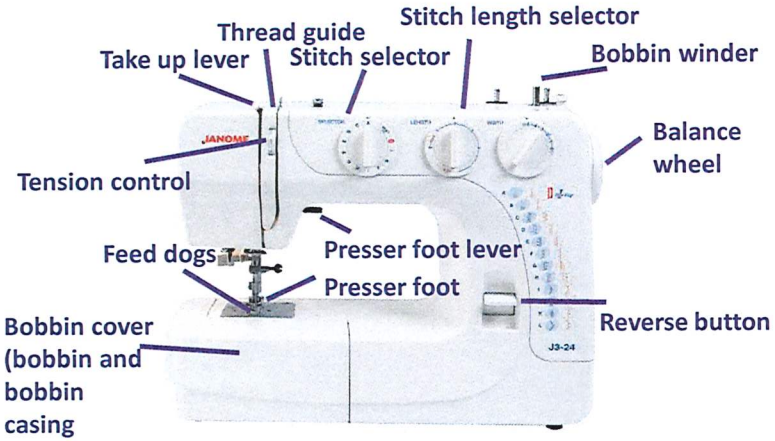
The present perfect in English always contains 'has' or 'have' in it. E.g.I have spoken, I have eaten, I have lived.

PASADO PERFECTO

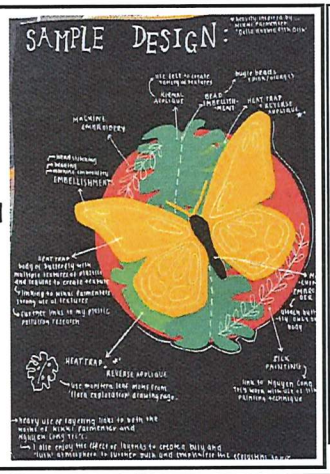
hablar *to speak*	**comer** *to eat*	**vivir** *to live*
había hablado	**había** comido	**había** vivido
habías hablado	**habías** comido	**habías** vivido
había hablado	**había** comido	**había** vivido
habíamos hablado	**habíamos** comido	**habíamos** vivido
habíais hablado	**habíais** comido	**habíais** vivido
habían hablado	**habían** comido	**habían** vivido

The past perfect is used to indicate an action that happened and was completed before another action took place in the past. E.g.I had spoken/lived/eaten

TEXTILES



Sample planning
I have done the following:
- ✓ Drawn what my sample will look like by hand/computer.
- ✓ Added labels to show different techniques and links to artists.
- ✓ Included colour where appropriate.
- ✓ Annotated with a statement of intent to show where my idea has come from.



Annotation checklist
- **What** have you done?
- **How** have you done it?
- **What** inspired you?
- **What** else did you try?
- **Why** was it successful?
- **Is** there anything you would change/need to do now?

Sentence starters:
- I have explored... in response to...
- I think that... is successful because...
- I could develop this technique by...
- This technique wasn't successful because...
- I could improve this technique by...

Assessment objective definitions:

AO1	
AO2	
AO3	
AO4	

As **Textile Artists** we should be **discriminative** and **discerning** in our work.

Definitions:

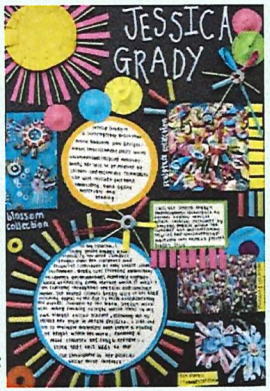
Discrimination:
- Making fine distinctions; discerning
- Able to recognise small differences between things

Discerning:
- Having or showing good judgment

Sketchbook page success criteria:
I have:
- ✓ Considered the layout of my page before sticking it down.
- ✓ Made sure my work is the star of the page – colours/presentation do not over power it.
- ✓ Annotated all of my practical work.
- ✓ Clearly labelled work if I am responding to an artist.

Artist Research Success Criteria

I have done the following:
- ✓ Written an opinion – minimum 4 sentences.
- ✓ Written facts about the artist – minimum of 3 facts
- ✓ Included images of the artist's work – minimum 2.
- ✓ Have created a practical **copy** from the artist's work.
- ✓ Have create your own **personal** response from the artist's work.
- ✓ Explained how the artist will/has inspired me.



Notes

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