Bishop Ullathorne Catholic School
Knowledge Organiser

Year 9
Summer Term
2023-2024

Name
Tutor Group

"If you are not willing to learn, no one can help you.
If you are determined to learn, no one can stop you."

Your Knowledge Organiser and Self Quizzing Book

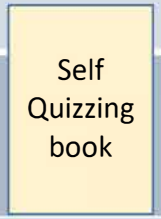
Knowledge Organisers

Knowledge Organisers contain critical, fundamental knowledge that you MUST know in order to be successful in Year 9 and subsequent years.

They will help you recap, revisit and revise what you have learnt in order to move the knowledge within from your short-term memory to your long term memory.

You must keep all of your Knowledge Organisers and Self Quizzing books at home because the fundamental knowledge required in Year 9 will also be required in Year 10 to 11.

Self Quizzing Book



This is the book that you should write in to complete your Knowledge Organiser Home Learning. **You do not need to bring this to school.**

Follow the simple rules on the right about how to use your Knowledge Organiser. You can also watch the video on our Home Learning webpage for more ideas on how to use the Knowledge Organiser.

You will be tested as a starter activity in your lesson on the day that the Home Learning is due. This will be completed in your normal exercise book and you will mark it in class.

The 'Look Cover Write Check' method

Step 1 Check Class Charts for what section your teacher has set you to learn for your Home Learning.

Step 2 Write the title of the section in your Self Quizzing Book .

Step 3 Write out the section that you have been asked to learn.

Step 4 Cover up the section in your Self Quizzing book. Read it, Cover it, Say it in your head, check it…REPEAT until confident.

Step 5 Cover up the section and write from memory in your Self Quizzing book.

Step 6 Check your answers and correct where required. Repeat steps 4 to 6 until you are confident.

Contents

Year 9 Art - Observational Drawing- 'Collections'

Observationa	Observational art is to draw or paint a subject as accurately as possible. The subject may be a still life, figure model, portrait or landscape and the image must be created from real life rather than a photograph or the artist's imagination
Hyper realism Art	Hyperrealism is a genre of painting and sculpture resembling a high-resolution photograph. Hyperrealism is considered an advancement of Photorealism by the methods used to create the resulting paintings or sculptures
Continuous line drawing	CONTINUOUS LINE DRAWING. The line in a continuous line drawing is unbroken from the beginning to the end. The drawing implement stays in uninterruped contact with the surface of the paper during the entire length of the drawing.
Composition	Composition is the term given to a complete work of art and, more specifically, to the way in which all its elements work together to produce an overall effect.
Grid drawing	Grid drawing is a technique that will help improve your accuracy without compromising the development of your freehand drawing in the long-term. It basically involves placing a grid over your reference photo and canvas, then using that grid to assist with the placement of your drawing.

Home learning tasks:
1. Observational drawing of a collection of objects (pencil case contents) in pen.
Artists study of chosen artist
Artists copy of chosen artist

Close up,
Section, Scale
Overlap,
Layer
Juxtapose
Observation
Angle
Reflective
Smooth
Texture
Line
Tone
Shade
Scale

a.Sarah Graham- Hyper realism- Graham paints everday objects in a way that it often looks like a photograph

Patrick Caulfield

c. Michael Craig Martin uses precise, bold outlines demarcating flat planes of intensely vibrant colours., he uses composition to explore spatial relationships by juxtaposing and layering colours

c. Colour Contrast-using colour theory to create contrast in your work

d. Using viewfinder to produce a close up of a subject

1

Year 9 Computer Science - Micro:bit (Expert)

Keywords

Keyword	Definition
Algorithm	Step by step instructions to solve a given problem
Pattern Recognition	Looking for similarities or characteristics that can help solve the problem
Decomposition	Breaking the problem down into smaller problems to solve
Abstraction	Removing aspects that are not required to solve the problem
Selection	A choice built into the program to determine the next section of code to execute based on the output to a set condition
Sequence	The order the program code must be in to work correctly
Repetition	A loop of a set section of the program code
Variable	A single temporary storage location within the program code that can be changed or edited
Function	A set of instructions that are given a name and only when this name is called in the main program, is it executed

Sequence

A program which is executed line by line

```
# -*- coding: utf-8 -*-
"""
Created on Thu Dec 28 22:53:20 2017

@author: Philippe BOULANGER
"""
from math import cos, sin, pi


def create(nb):
    step   = pi / nb
    var    = ( ( i, step * i ) for i in range( nb+1 ) )
    values = [ ( i, x, cos(x), sin(x) ) for i, x in var ]
    with open( "concat_test.csv", "w" ) as file:
        for t in values:
            text = ""
            for i, v in enumerate(t):
                if i != 0:
                    text += ';'
                text += str( v )
            file.write( text + "\n" )

nb = 1000000
create( nb )
```

Selection

A program which makes a choice or decision – sometimes there may be more than one.

```
# -*- coding: utf-8 -*-
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create( nb )
```

Iteration

A program which repeats a number of times or until a condition is met

```
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create( nb )
```
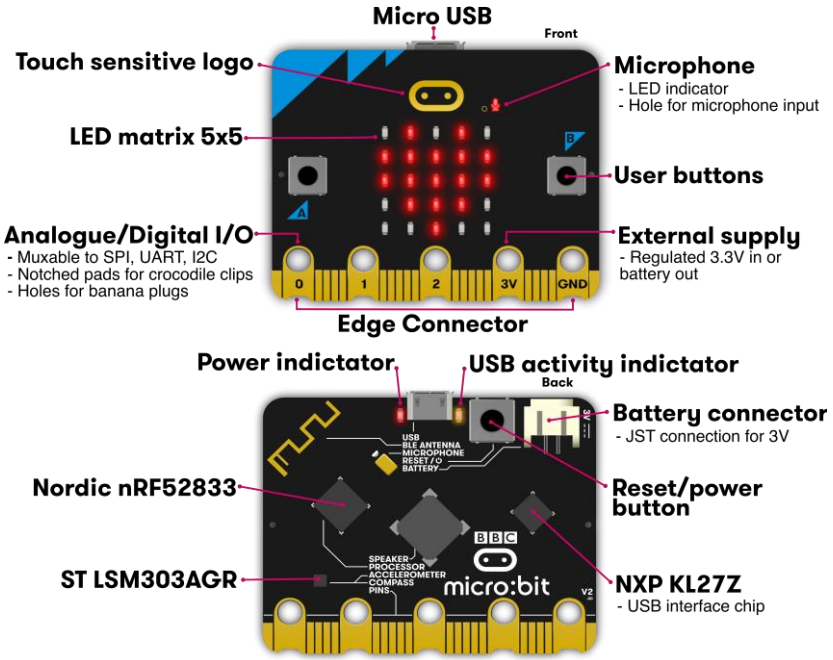

Micro:bit Hardware

Definition: The micro:bit is a tiny computer.

You can write programs for the micro:bit on your computer and then transfer them to the micro:bit to be run.



Functions

A function is a piece of code that is created with a name and you can call this function anywhere else by using its name.

```
# -*- coding: utf-8 -*-
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def create(nb):
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    values = [ ( i, x, cos(x), sin(x) ) for i, x in var ]
    with open( "concat_test.csv", "w" ) as file:
        for t in values:
            text = ""
```

2

Year 9 CPSHE Summer Term 1

Topics covered include:

Financial wellbeing and exams

Lesson overview
The Ullathorne Way
Current affairs
Financial wellbeing - Debt
Financial wellbeing—What's best for me?
Exam revision

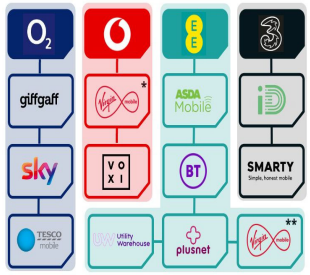
Keywords	**Definitions**
Debt	A sum of money that is owed or due.
Budgeting	An estimate of income and expenditure for a set period of time.
Contract	A written or spoken agreement, especially one concerning employment, sales, or tenancy, that is intended to be enforceable by law.
Current affairs	Events of political or social interest and importance happening in the world at the present time.

1

Things to consider before you buy a new mobile phone contract:

2

- Upfront costs and data allowance.
- Potential price rises.
- Mobile coverage.
- Contract length.
- Roaming costs.
- Flexible contracts.



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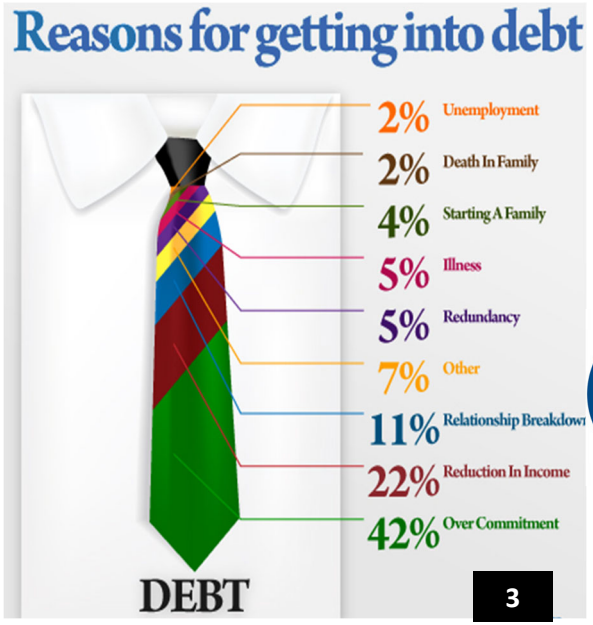

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3

Year 9 CPSHE Summer Term 2

Topics covered include:

Exams and Local / National / International

Lesson overview
Exams
CPSHE end of year exam
Conflict and Resolution—Local and National
Conflict and Resolution—International
Summer safety

Keywords	Definitions
Conflict	A serious disagreement or argument, typically a protracted one.
Resolution	The action of solving a problem or contentious matter.
Local	Relating or restricted to a particular area or one's neighbourhood.
National	Relating to a particular country.
International	Between many nations.

1

National conflicts include:

- HS2 route and cost
- Moving forward with COVID / Vaccinating people

5

7

Local conflict

3

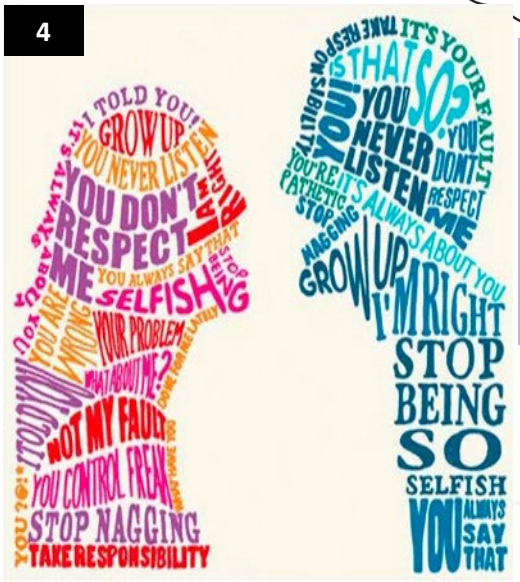
Examples include, in the home:

- Sibling issues
- Parenting disagreements
- Relationship changes
- Money concerns

Outside the home include:

- Coventry bin strike

4



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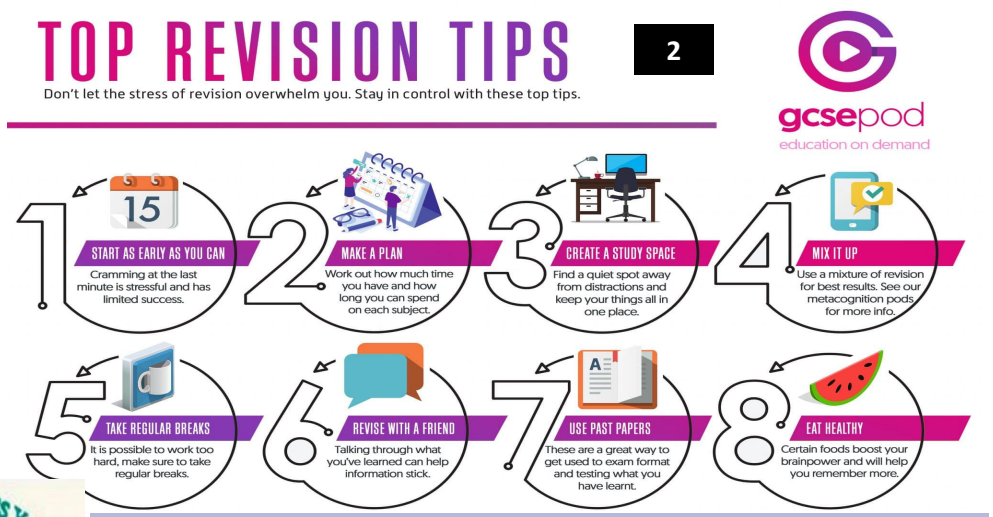

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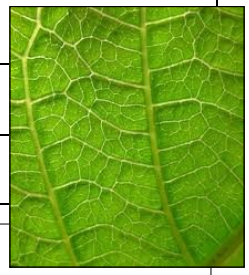
4

Year 9 - Art Textiles - Natural Forms

1. Keywords	
Aesthetics	The overall look of something, to study its appeal and beauty
Annotation	Notes or explanations added to a piece of work to explain your thinking
Texture	The quality of something that can be decided by touch
Techniques	A practical skill learnt in Art Textiles such as printing, embroidery
Poly printing	A printing techniques where marks are left in Styrofoam and then ink rolled
Natural Form	an objects in nature in its original form. Examples:- Leaves, flowers, pine cones, sea weed, shells, bones, insects, stones, fossils, crystals, feathers,
Image Page	A page covered in images which reflects a theme
Theme	The main focus or subject of the work
Reflective	To think about and analyse your thoughts and ideas



2. Assessment Objective 1—Researching for a project

What you should include in your sketchbook

A Theme Mind Map – Mind map all the things you can think of relating to your topic! Include images if you want to.

Image Page – Collect images linked to your theme into an image page – annotate keywords about the images / theme.

Artist / Designer Analysis – Look at an existing artist or designer and complete an analysis of their work

3. Assessment Objective 3—Annotation of work

What should you include in your sketchbook. You need to annotate your work through out and be reflective.

Describe—What? What is it that you have made?

Explain—How? How did you do it? What techniques did you use? How does it fit the brief?

Reflect—Why? Why did you use those techniques? Why did it work/not work? What might you do differently next time? How will you use this in the future of your pro-

4. Assessment Objective 2 and 4—Techniques

The techniques you will focus on this project are:

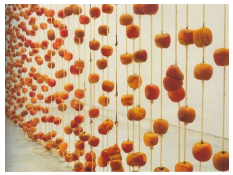
Mono Printing

Poly Printing

Ink work

5. Artist—Anya Gallaccio

A British textile artists that creates installation art based on organic and natural matter.



6. Artist—Cas Holmes

A multi media textile artist that works with found materials and stitch

8. Artist—Yellena James

An illustrator that works with under the sea theme and specialises in silk and gutta work

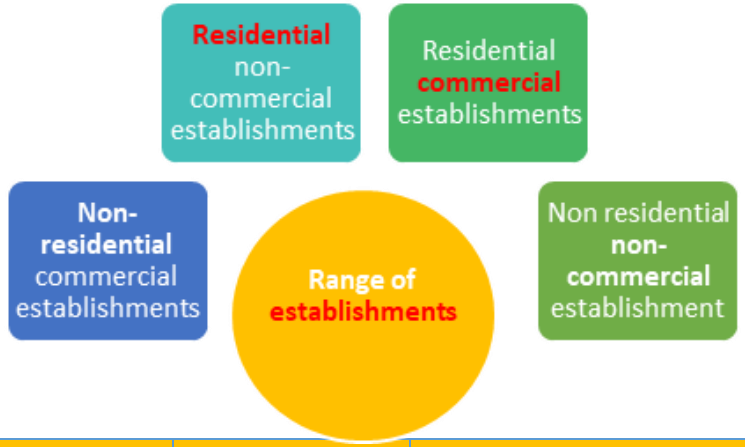
7. Artist—Caroline Dangerfield

A freelance artist that explores landscapes and nature in her local area.

5

Catering - Year 9 Knowledge Organiser

1 Types of Provider



Establishment	Services provided	Examples
Commercial residential	Accommodation, house keeping, food, beverages, conference or training facilities	Hotels, guest houses, campsites, bed and breakfasts, holiday parks, farmhouses.
Commercial non-residential	Food and beverage to eat in or take away, areas to sit eat and drink.	Restaurants, cafes, tea rooms, coffee shops, fast food outlets, pubs and bars, street food and pop up restaurants, mobile vans.
Non-commercial residential	Accommodation, food and beverages	Hospitals, care homes, prisons, armed forces, boarding schools, colleges, universities.
Non-commercial non-residential	Food and beverages	Canteens in offices, day-care centres, schools and nurseries, charity food suppliers e.g. soup kitchen

2 Front of House roles

Reception

Receptionist: meet customers and direct them to the correct person or place; they manage visitor lists and booking systems

Porter/ Concierge; assist hotel guests by making reservations, booking taxis and booking tickets for local attractions and events.

Restaurant and bar

Restaurant manager (Maître d'Hote): The restaurant manager is in overall charge of the restaurant,; they take bookings, relay information to the head chef, complete staff rotas, ensure the smooth running of the restaurant

Head waiter (ess): Second in charge of the restaurant,. Greets and seats customers, relays information to the staff, Deals with complaints and issues referred by the waiting staff.

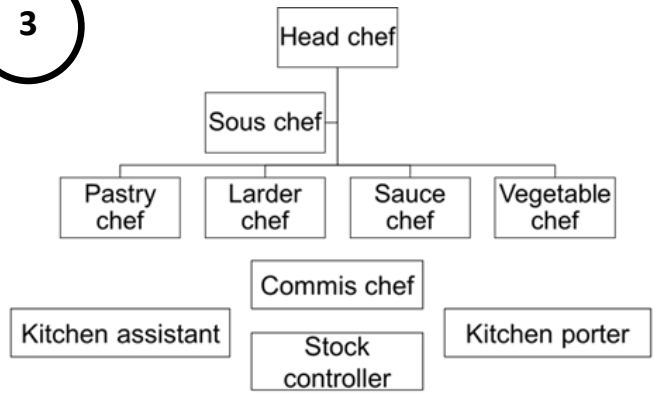
Waiting staff Serve customers, clear and lay tables, check the customers are satisfied with the food and service. May give advice on choices from the menu and special order foods

Wine waiter- Le sommelier: Specialises in all areas of wine and matching food, advises customers on their choices of wine, Wine waiters serve the wine to the customer and can advise customers on their choices as well

Bar staff serve drinks and take food orders , wash up, clear tables, change barrels and fill shelves.

Baristas make and serve hot and cold beverages, in particular different types of coffee such as espresso, cappuccino and latte.

3 The Kitchen brigade- Back of House



Most large establishments could have **chefs de partie** in the following areas:

Sauce chef- Le Saucier

Pastry chef- Le Patissier- baked goods and dessert

Fish chef- Le Poisonnier

Vegetable chef- L'entremetier

Soup chef- Le Potager

Larder chef- Le garde manger- cold starters and salads

The **commis chef** or assistant chef is a chef in training

The **kitchen porter** washes up and may do basic vegetable preparation

The **stock controller** is in charge of all aspects of store keeping and stock control.

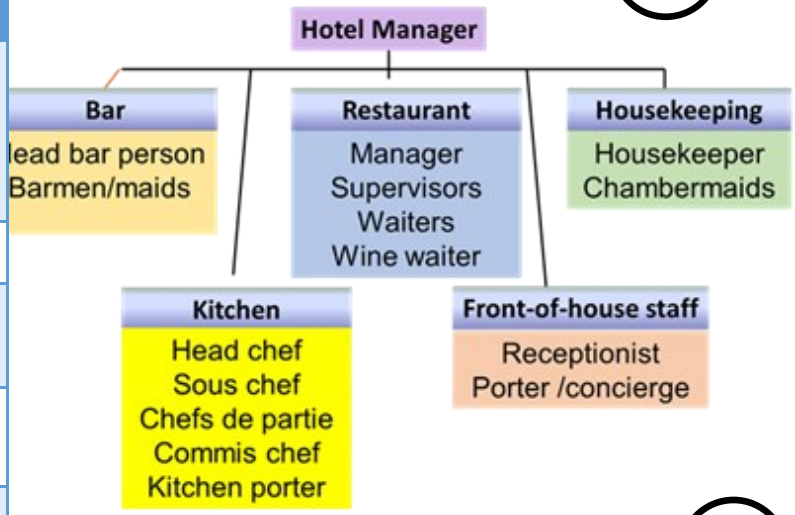
6

Food service	Description
Formal food	Food is usually served to customers by waiting staff. **Plate**—the meal is plated up and bought to the customers table by waiting staff. **Waiting service**—the food is served to the customers at the table by waiting staff. **Gueridon** - the customers food is cooked at the table, usually for dramatic effect.
Street food	Ready-to-eat food or drink sold on the street or in a public place such as a market or festival.
Self-service	Customers help themselves to food, for example, a carvery where the meat is on display and carved by a chef, then the customers help themselves to vegetables and gravy.
Fast food	Food is made to order very quickly and can be taken away from the restaurant or stall to eat. Seats and tables are often provided.
Cafeteria	Small and inexpensive restaurant or coffee bar, serving light meals and refreshments.
Takeaway	Takeaway restaurants take an order and deliver the food to the customers home, customers can also order at the restaurant and take the food away to eat.
Buffet	A selection of dishes is laid out for the customers to help themselves. Different buffet styles include: **Sit-down buffet**—once the customer has chosen their food from the buffet, they can sit down at a table to eat it. **Stand-up or fork buffet**—once the customer has chosen their food, they stand to eat it; this allows guests to circulate and meet other guests. **Finger buffet** - all the food is prepared to be eaten with fingers (without the need for a knife and fork). Foods are normally bite-size and easy to eat.
Automatic vending	Drinks and snacks are stored in a machine with a glass front and items are selected by the customer. They are often coin operated and placed in establishments where it may not always be possible to get access to food.
Transport catering	A variety of food service options are available on train, planes and ships.
Hotel	Provides overnight accommodation and food and drink options. Many hotels offer breakfast, evening meals, bar snacks, lunch and room service.
Bed & Breakfast	Offers overnight accommodation and breakfast. Often these are private family homes where rooms are made available to guests. Breakfast is usually served in a dining room or the owners kitchen.

4

Staff structure in a hotel

6



5

Proposing ideas

You need to be able to match different types of visitors to suitable types of catering and/or accommodation. The different types of visitors include:

- Families with children under 12
- Families with teenage children
- Groups of people, for example a school group
- Old age pensioners (OAP's)
- Overseas visitors
- Single people
- Couples

A range of information must be gathered to be able to make a structured proposal for catering and accommodation for a specific requirement such as: Budget, type of occasion, type of venue, number of people, information about the area.

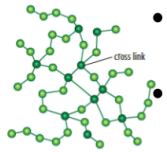
7

Thermoforming Polymers

- Can be reheated and reshaped
- Can be recycled

Examples: Acrylic, PVC, HIPS, HDPE, Styrofoam

Thermosetting Polymers

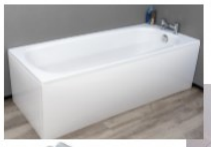


- CAN'T be reheated or reshaped
- CAN'T be recycled

Examples: Urea formaldehyde, polyester resin

1

acrylic



Tough, easily cleaned, food safe
Widely available
Easy to cut&finish
Can be shaped using heat
Self finishing

Can be scratched easily
Breaks easily if dropped

Life Cycle Analysis of a Carrier Bag

1. **Raw materials** (crude oil) is extracted from the ground with **oil pumps and oil rigs**. An oil leak can devastate local wildlife

2. **Factories** use **energy** and create **pollution** to make the bags

3. The carrier bag is created and **transported** to the shops it will be sold

4. In use

5a. Reused. The person uses the bag every time they go shopping.

5b. Recycled. Taken to a factory to be washed and reprocessed into material that can be made into new products

5c. Bin and landfill. The bag will sit in landfill for 500+ years as it cannot biodegrade

5d. The bag ends up in rivers and oceans. It will break down into microplastics and fish will mistake it for food.

How to cut acrylic:

2

1. with these hand tools:

Coping Saw		A saw with a very narrow blade stretched across a D-shaped frame, used for cutting curves in wood
Sand-paper		A low grade abrasive material used to smooth woods and plastics
Wet and dry paper		A high grade abrasive material used to achieve a high quality finish
Vice		Used to hold work in place when sawing and filing

The adhesive you use to glue acrylic together is Tensol Cement

2. with CAD/CAM:

Step 1: create the design on **2D Design** computer software

Step 2: put the correct **colour, size and thickness** of acrylic on the laser cutter **bed** and ensure **the lid is closed**

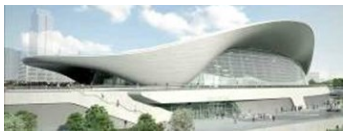
Step 3: **program** the laser cutter for the right **settings** for **speed and power**

Step 4: turn the **extraction** on and **run** the program. **You must not use the laser cutter without proper extraction because of the fumes**!

Step 5: after it has finished, take out your items

3

Year 9 END OF YEAR EXAM Product Design Knowledge Organiser page 2

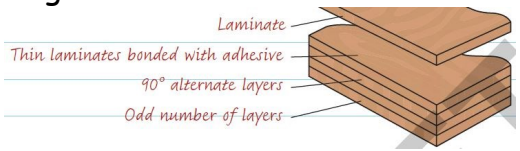
Name	What are they known for?	Why are they influential?
Alessi   	• Designer and mass producer of **functional but visually appealing homeware** and **kitchen** products	• Uses famous designers, such as Philippe Starck, to create **iconic kitchen products**, such as the spider-like Juicy Salif lemon squeezer and retro kettles, setting a standard for other homeware companies
Apple    	• Producer of **consumer electronics** and **software using cutting-edge technologies**, e.g. iPad, iWatch, iPod, iPhone, iTunes	• Ground-breaking design: **products looked completely different to anything before** • Breaking with tradition and legacy, Apple's iPod made **digital music mainstream** • A loyal customer base
Heatherwick Studio   	• Around 200 designers, architects and makers have worked on **projects from perfume bottles to Routemaster buses and Singapore University buildings**. Famously designed the London 2012 Olympic Flame Cauldron	• **Stretches the boundaries** of materials, craftsmanship and artistic thinking, showing that products and buildings can be **unusual**, **experimental** and **interesting**
Joe Casely-Hayford  	• Noted for his **original but wearable designs** that push barriers of conformity, **made by master craftspeople** using **traditional English tailoring methods**	• Sets standards for British tailoring that **combines style with character** and is **popular with celebrities** like Lewis Hamilton and Benedict Cumberbatch
Pixar 	• Among the first to develop **computer-animated feature films**	• Uses **new techniques and technologies** to make **popular and successful films**, including Toy Story and Finding Nemo
Raymond Loewy     	• 'The father of modern design' • Emphasised the importance of **combining simplicity with functionality**, working with more than 200 companies on designs **ranging from refrigerators to planes, trains and spacecraft**	• Introduced the idea that **if two products have the same price, function and quality, the products with better aesthetics will be more popular** • His designs are recognisable today, including the Coca-Cola bottle, Le Creuset Coquelle dish and logos for Shell and BP
Tesla, Inc.  	• Produces electric cars that **don't compromise on power or quality**, **have zero emissions**, are **affordable** and **can be charged at home**	• Leads **electric car design** and technology, including the **Tesla Model X SUV** (2016)
Zaha Hadid  	• Integrated geometric forms with **expressive, sweeping fluid forms** • Promoted **architecture as a visual art form**, with buildings intended to give **aesthetic pleasure**	• Overcame racial and gender barriers to establish an architecture practice that has **designed more than 1000 iconic buildings** worldwide

9

4

E.g. oak, beech ash **Hard-woods** E.g. mahogany		Timbers from deciduous trees that lose their leaves in winter. They produce expensive, close gained woods.
E.g. pine **Soft-woods** E.g. cedar		Timbers from coniferous trees that have needles and cones. They produce cheaper woods with lots of knots.
Manufac-tured Boards E.g. plywood, MDF		Boards that we make from scraps of other timbers e.g MDF, chipboard,

Plywood is made up of layers of veneers glued at 90 degrees to each other:



Manufactured boards (from recycled timbers) are better for the environment because:

→ it means no new materials need to be made so less trees are being cut down meaning less deforestation.

→ it stops waste timber going to landfill as it is used for other materials

→ less energy is needed to manufacture

→ pollution is reduced as there is less transportation and factories involved in processing

Potential advantages of recycling and reuse
Less waste material to go to landfill
Reduces the demand for new raw materials
Helps reduce global warming caused by emissions from processing raw materials
Can reduce the need for transportation and mining
Jobs can be created in the recycling industry
Money is saved as the materials are used for a second time

Potential disadvantages of recycling and reuse
The recycling process can be complex when separating materials
Not always cost efficient, as a lot of energy is needed to transport, process and reassemble recyclable materials
The recycling process may produce waste and pollutants, creating more environmental problems
Jobs created in recycling industry may be low quality
The quality of the recycled material may be inferior

Renewable energy sources

Solar Wind Hydroelectric

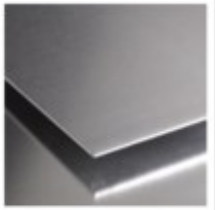
Tidal Biodiesel Biomass



Advantages:
More environmentally friendly
Some can be stable and a reliable source (e.g. tidal)

Disadvantages:
Some can vary (wind)
Can be expensive to set up
Some only available in certain areas

5

E.g. cast iron **Ferrous Metals** E.g. stainless steel		Metals which contain iron and will rust and will attract a magnet
E.g. copper **Non-ferrous Metals** E.g. aluminium		Metals which DO NOT contain iron and will NOT rust and will NOT attract a magnet
E.g. ferrous alloy: stainless steel **Alloys** E.g. non-ferrous alloy: brass, bronze		Metals that are a mixture of two or more metals or elements to make a new metal with improved properties

Aluminium needs **bauxite ore** to be extracted. The extraction sites create a lot of **noise and pollution** and destroy natural **habitats**.

Smelting or electrolysis is used to get aluminium from the bauxite. This needs a lot of **electricity**. These factories are usually powered from **non-renewable** sources like coal, oil and gas which we

---

Stainless steel is an alloy. It is ferrous (because it contains iron) but **does not rust** because of the mixture of metals in the alloy. This means it can be washed easily and used repeatedly.

It is used for items like surgical equipment and kitchen cutlery because it is **tough** (so will not break on impact), **hard** (so cannot be scratched or dented), and it **resists wear** (so can be used for a long time.

10

Year 9 DRAMA

Devising Skills

A method of theatre-making in which the script originates from a performing ensemble working collaboratively. Improvisation to develop the plot, characters and relationships.

How to create original theatre based off a range of stimuli (a starting point for inspiration) such as song lyrics, a painting, a newspaper article.

AO2 Apply theatrical skills to realise artistic intention s in live performance (GCSE Drama)

Drama conventions	A range will be explored including: devil and angel, soundscape, monologues, direct address, narration, placards
Genre	The category. Examples include: drama, comedy, tragedy, horror, thriller
Stimuli/stimulus	A starting point for creating original drama. Examples include: Headline, a painting, a poem, a historical moment in time, political figure
Performance style	The way in which the actors tell the story vocally and physically . For example: naturalistic, non-naturalistic, physical theatre
Theatre practitioner	A person who specialises in a particular style of acting. For example Brecht's Epic Theatre, Berkoff's Total Theatre or Stanislavski 's Naturalistic Method of Acting.
Structure	Dramatic structure refers to **the way the play is divided up into parts**. Just as books are divided into sections and those section are divided into chapters, plays are divided into acts and scenes; again, like books, plays sometimes also include prologues and epilogues. There are various structures including: linear, non-linear, cyclical, episodic.
Characterisation	The creation or construction of a fictional character through improvisation, hot-seating, refinement , observation skills and research

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Year 9 DRAMA
Key Skills

DRAMATIC CONVENTIONS/TECHNIQUES

Devising: Creating a performance (usually from a stimulus).

Performance: Present your scenes to an audience.

Flashback: A scene used in film/television/theatre to reference events that have taken place previously at an earlier time in the story.

Hotseating (in role): Interviewing the character.

Hotseating (out of role): Interviewing the actor.

Open questions: Questions that require more than a 'yes' or 'no' answer.

Still Image/Freeze Frame: A 'living picture' showing a moment in time – as though the pause button has been pressed.

Narration: Give the audience information particularly of what they don't see.

Direct Address: A character talks to the audience and any other charters on stage do not appear to hear.

Multi-role: Play more than one character.

Voice-over: Narrating off stage.

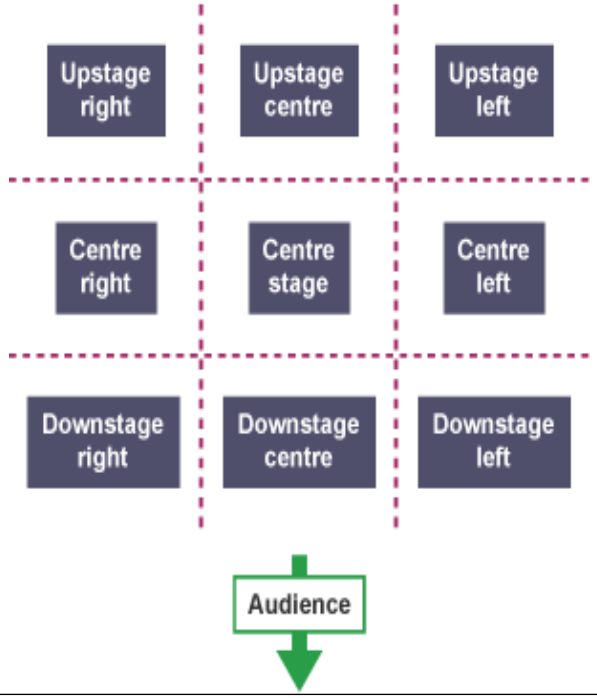
Cross-Cutting: Alternating between two different scenes both on stage simultaneously.

Technical SEMIOTICS:

Signs and symbols in drama (Definition)

Props, Costume, Lights, Sound Effects (FX), Music, Scenery, Set, Hair, Make-up, Backdrop…

Areas of the Stage



Remember: The stage positions are always from the **actor's** point of view, as they are the ones standing on the stage.
Demonstrate good **spatial awareness** by using all areas of the stage, where appropriate.

COMMAND WORDS

Identify: Establish or indicate who or what someone or something is.

Describe: Set out characteristics of something

Analyse: Look at the information provided and break it down to identify and interpret the main points being raised.

Explore: Travel through an unfamiliar subject or situation in order to learn about it.

Collaborate: Work with others to reach a conclusion.

Hypothesis: a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation.

Justify: be a good reason for.

Explain: Set out purposes or reasons

Communicate: convey or share an emotion or feeling in a verbal or non-verbal way.

Evaluate: Make a judgment from the evidence available

Creating: The process of developing a drama's content and roles through practical exploration, experimentation and problem solving.

12

Year 9 English - *'Othello'* by William Shakespeare

1 Plot Overview

Iago is angry that Othello, the general of the army, has promoted Cassio to be his lieutenant instead of Iago.

Othello has secretly married Desdemona, the daughter of a senator in Venice.

Iago tells Desdemona's father about the secret marriage to cause trouble for Othello.

Desdemona's father makes a formal complaint about Othello's behaviour to the Duke of Venice. His complaint is ignored, and the Duke sends Othello to Cyprus to continue fighting in a war.

Othello goes to Cyprus and takes his new wife Desdemona with him, together with Iago and Michael Cassio.

Iago encourages Cassio to get drunk whilst on duty. Cassio ends up in a drunken fight and is demoted from his position as lieutenant.

Iago begins to plant seeds of suspicion in Othello's mind about his wife's relationship with Michael Cassio. Iago gets hold of a handkerchief belonging to Desdemona and hides it in Cassio's room pretending it is proof of Desdemona's unfaithfulness.

Desdemona pleads with Othello to give Cassio his job back. She does this innocently, but Othello takes this as proof of her feelings for Cassio.

Iago continues to manipulate Othello to the point where Othello punishes his new wife for her supposed lies and unfaithfulness.

Iago's wife, Emilia, tells Othello that Iago has lied. Othello realises his tragic mistake as Iago is arrested.

2 Characters

Othello:
- Respected
- Impulsive
- Victimised
- Suspicious

Desdemona:
- Submissive
- Kind
- Naïve
- Innocent

Iago:
- Manipulative
- Disloyal
- Resourceful
- Duplicitous

Emilia:
- Loyal
- Outspoken
- Independent
- Down-trodden

3 Historical Context

In Elizabethan England, the term "Moor" could be used to refer to a wide range of non-European people, including black Africans, North Africans, Arabs, and even Indians. References to Othello's origins throughout the play are frequent: Iago calls Othello a 'Barbary horse'; Barbary was an area in Africa between Egypt and the Atlantic Ocean. Roderigo, however, calls him 'thicklips', suggesting that he may come from further south on the African continent. Brabantio calls him 'sooty'; Othello, along with numerous other characters, refers to himself as 'black'. Shakespeare's reference to Othello as a 'Moor' is almost certainly an indication that Othello's ethnicity is of African descent.
In England during Shakespeare's time, views regarding 'Moors' were slightly more complex because of strong anti-Catholic sentiment in England and English fears of invasion by the Spanish. In fact, England maintained independent trade relationships with "Moorish" Northern Africa, despite Spanish and Portuguese protest. The English slave trade also brought black slaves to Europe, from mid-sixteenth century onward.

4 Useful 'translations' from Shakespearean to modern English:

Thee and thou = *you*
Thy = *your*
('thee', 'thou' and 'thy' were more informal versions of '*you*' in Shakespearean times. Characters are more likely to use '*you*' and '*your*' when they are being respectful or polite, e.g. when speaking to someone with a higher status than them.)
art = are
chide = tell off/ scold/ rebuke/ reprove
cuckold = (mocking/insulting) a man with an unfaithful wife
false = treacherous, traitorous, perfidious
forsooth = =in truth, certainly, truly, indeed
hath = *has*
humour = *mood / temperament*
morn = *morning / dawn*
o'er = *over*
oft = *often*
prate = *talk / chat*
prithee = *Please, may I ask*
thy = *your*
'twixt = *between*
vex'd = angry
wench = *girl*
whence = *why*

5 KEY QUOTES EXPLAINED

'I'll [...] make the Moor thank me, love me, and reward me For making him egregiously an ass.' Iago is left alone and delivers soliloquy revealing his evil scheme. He has announced that winning Desdemona for himself would be the best possible form of revenge against Othello, but that he will settle for driving Othello mad with jealousy by tricking him into thinking Desdemona has been unfaithful. Iago finishes his speech with the alarming boast that he will make Othello **'thank me, love me, and reward me'** for making a fool out of him, again using the racist imagery and says he will turn Othello into an ass (donkey). This passage is a reminder of Iago's scheming nature—he wants to destroy Othello not only for the pleasure of vengeance, but also for the "reward" of advancing his own career. It also reveals the truly stubborn, heartless extent of his desire for revenge. It is not enough for Iago to ruin Othello; he wants Othello to "thank" and "love" him for it too.

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Year 9 English - *'Othello'* by William Shakespeare

6 The Purpose and Function of Allusion

What is an allusion?

In literature, an allusion is an unexplained reference to someone or something outside of the text. Writers commonly allude to other literary works, famous individuals, historical events, or philosophical ideas, and they do so in order to layer associations and meanings from these sources onto their own work. Allusions can be direct or indirect, meaning that they might explicitly state the name of the thing they're referring to, or they might hint at it in other, subtler ways.

Reasons why writers use allusion:

- To efficiently convey big ideas or refer to stories that would take too long to explain.
- To deepen and enrich the meaning of a text by adding a layer that may not be obvious to all readers.
- To invite readers to reflect on the similarities between their own lives and the lives of authors or characters being alluded to.

Where can we see allusion in *'Othello'*?

He hath not yet made wanton the night with her, and / she is sport for Jove."
In the allusion to Jove in *Othello*, Iago is using deceitful tactics to play with Cassio's mind by attempting to attract him to Desdemona. He claims that Desdemona is "sport for Jove," signifying that Desdemona is a woman fine enough to belong to the King of Gods. Since the King of the Gods is likely to have a woman of high class and beauty, the allusion to Jove is ideal. In addition Jove had many different wives and famously cheated on Hera, suggesting Othello might be the same.

8 Shakespeare alludes to the following mythological characters in Othello.

In Roman mythology, Jove is the king of the gods as well as the god of sky and thunder. Jove is also commonly known as Jupiter was the chief deity of Roman state religion throughout the Republican/ Imperial eras, until the Empire came under Christian rule. He is the Greek equivalent of Zeus, who wielded bolts of thunder.

In Greek mythology, the Hydra is poisonous serpent-like water beast that possessed up to nine heads. Additionally, for each head cut off, it grew two more, and it had extremely infectious poisonous breath and blood; the stench from its breath was enough to kill man or beast. Hercules found the Hydra and killed it. Heracles cut off the heads one by one from the Hydra and Iolaus held a torch over the open wounds to stop them from growing, until just one head was left. Hercules used a golden sword from Athena to destroy the last head with a mighty blow.

The term Janus describes someone who is duplicitous. Shakespeare's mythological allusion to Janus is, ironically, a quote by Iago. Even more surprisingly, when he uses it he is not telling a lie; he simply swears no by Janus when Othello asks him if Brabantio is approaching. Nevertheless, Janus, as a two faced god, is very appropriate and fitting for Iago's own role during the play. Iago himself is many faced with all of his feigned behaviours. His duplicity is further demonstrated when Othello steps away and Iago shows his other face of Janus and begins his malicious scheming again, yet switches back his original "face" when Othello returns.

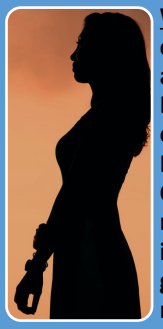
7 Themes

PREJUDICE: Othello shows the impact of racial prejudice. In nearly every case, the prejudiced characters use terms that describe Othello as an animal or beast. In other words, they use racist language to try to define Othello

not only as an outsider to white Venetian society, but as being less human and therefore less deserving of respect. Othello himself seems to have internalized this prejudice. On a number of occasions he describes himself in similarly unflattering racial terms. And when he believes that he has lost his honour and manhood through Desdemona's supposed unfaithfulness, he quickly becomes the kind of un-rational animal or monster that the white Venetians accuse him of being:

Jealousy:

Iago refers to jealousy as the "green-eyed monster." As this metaphor suggests, jealousy is closely associated with the theme of appearance and reality. For instance, at one point Othello demands that Iago provide "ocular proof" of Desdemona's infidelity—he demands to see reality. But Iago instead provides the circumstantial evidence of the handkerchief, which Othello, consumed by his jealousy, accepts as a substitute for "ocular proof." Othello's jealousy impedes his ability to distinguish between reality and appearance.



Women and marriage: Two contrasting images of womanhood dominate Othello: the virtuous and loyal woman, or Madonna, embodied by Desdemona; and the strong and opinionated, embodied, to a certain extent by Emilia. Desdemona often describes her devotion to Othello in front of other people, she plays the role of the virtuous wife. Emilia is far less idealistic about marriage and the world in general than Desdemona is, she is loyal to her mistress.

1. # ENGLISH: YEAR 9- End of Year Exam- Explorations in Reading and Creative Writing.

THE BASICS:
Read the text – 5 mins

Section A
Q1 – List 4 things (4 marks)
Q2 – How does the writer use language to… (8 marks)
Q3 – How does the writer structure the text to… (8 marks)
Q4: [statement] To what extent do you agree? (20 marks)

Section B
Q5: Writing to describe or narrate (45 mins including planning time)

2. **Section A:**
Question 1

Question stem: Write down four things you learn…

1. Read the question and highlight the key words, including the lines it asks you to focus on.
2. Draw a box around the lines you need to focus on in the insert.
3. Write in full sentences. 4. One point per line.
5. Keep it simple i.e. explicit inferences.

3. **Question 2**

Question stem: How does the writer use language to…

1. Read the question and highlight the key words to ensure you understand what the focus of your answer will be.
2. Re-read the section of text the question asks you to focus on.
3. Highlight key quotations which will help you answer the focus of the question. Consider the use of different language devices.

4. **Question 3**

Question stem: How has the writer structured the text to interest you as a reader?

1. Read the question and highlight the key words. This question is about how the text is put together and organised, rather than the language devices used.
2. Annotate where you see evidence of the following structural features:

Opening	Character	Time	Setting	Cyclical structure
Perspective	Shift in focus	Ending	Dialogue	Zooming in/out

3. Skim through the whole source again. Highlight and label where you see different features particularly focus on how the opening and ending are effective.

Top tip: for a really clear response, think about what the writer focuses your attention on at the beginning; what they focus on in the middle, and what they focus on at the end-and whether this is similar or different. Then ask WHY?

5. **Question 4**

Question stem: '[statement about the text]' To what extent do you agree?

1. Read the question and highlight the key words, including the section of the text if specified. Think carefully about how far you agree with the statement.

Top Tip: Usually it is best to AGREE with the statement. But consider how far you agree. Is there evidence to argue against this opinion? Create a debate in your answer.

2. Draw a box around the section of the text specified.
3. Read through and highlight words/phrases/language devices you will use to argue FOR, and maybe against the statement.

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ENGLISH: YEAR 9- End of Year Exam- Explorations in Reading and Creative Writing.

Section B: Question 5

Writing to narrate (story) or describe. Planning (THIS IS REALLY IMPORTANT!) 1. Decide which task you would like to do (narrate or describe).
2. Plan using the structures below.
3. Write your story or description. *REMEMBER*: If you do not show your examiner you can do use a certain skill (e.g. use capital letters/ adventurous vocabulary/ paragraphs/ varied punctuation etc.) They are left to simply assume you can't. You do not have hours and hours, so quality is preferred over quantity.

-V.S.S The VERY SHORT SENTENCE
Deliberate use of a sentence consisting of no more than 5-6 words in total. Must be for effect and every word must count.

- Out went all light.
- Call me Ishmael.

Prepositional openers – used to show the relationship between the noun and other words in a sentence

- In a flurry …
- Off in the distance …
- Throughout …
- Since last year …

-ing or –ed openers. Use of a verb in its present or past form

- Frightened, the child backed away …
- Singing softly, mum soothed my brother …
- Having far to much fun, they decided to stay another hour …

6. **How do I open a sentence without using an article or pronoun?**

Transitional openers – to begin sentences with interruptions or to change the direction of your story / argument

- Pop! He sent small smoke-rings in to the air.
- Moreover, they did not realise there would be no phone signal here.

Clausal openers- use any of the clausal words to start a sentence (when, where, while, as, since although, if)

- When she demanded it back, Toby confessed that he had…
- If he had got here sooner, we wouldn't have had to queue

Adverb openers – a word or phrase that modifies the meaning of an adjective or other adverb expressing manner, place, time or degree

- Tentatively
- Confidently
- Slowly

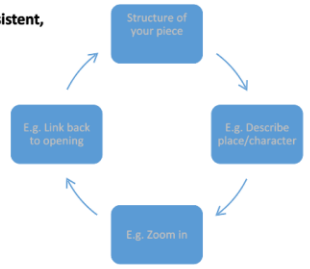
9.

AO5~ Specific to Qu asked

TiPToP- Purposeful Paragraphing reminder -Time Place Topic or Person

Perspective- Be consistent, unless changing for deliberate effect.
1st person (I)
2nd person (you)
3rd person (he/she)

Tense- Be consistent
Past
Present
Future



Tools for engagement & cohesion: (Avoid Clichés and be original)
Connectives:(examples only- list the 5 you will use within and between paragraphs.)
TIME (when): Meanwhile, eventually, soon after, later, suddenly, since, moments later, years before, now. **PLACE** (where): Everywhere, somewhere, nearby, here **CAUSE** (how): whether, even though, probably, unless, eventually, even, despite.
Tools: (examples only- put your own 3-4 in here)

* Cyclical structure
* Powerful verbs
* Exaggeration
* Personification
* Emotive language
* Metaphor/Simile (imagery)
* Dialogue to move plot forward
* Repetition/motif
* 5 senses (Show, Don't tell!)

7.

8.

AO6 ~ NON-NEGOTIABLES

Vocabulary (Your chosen words to show off spelling.)

- ❑
- ❑
- ❑
- ❑
- ❑
- ❑

Punctuation
Must be used correctly, deliberately AND for effect.
; : … " "
Double check accuracy, but **EXPECTED** that you will use these correctly , ' . ! ?

Sentence openers
Very short sentence
-ly (adverb)
-ed (verb)
-ing (verb)
preposition (In, over, beside)
Clausal (when, while…)
Transitional (above all moreover…)

Sentence types
Simple
Compound
Complex
Embedded clause

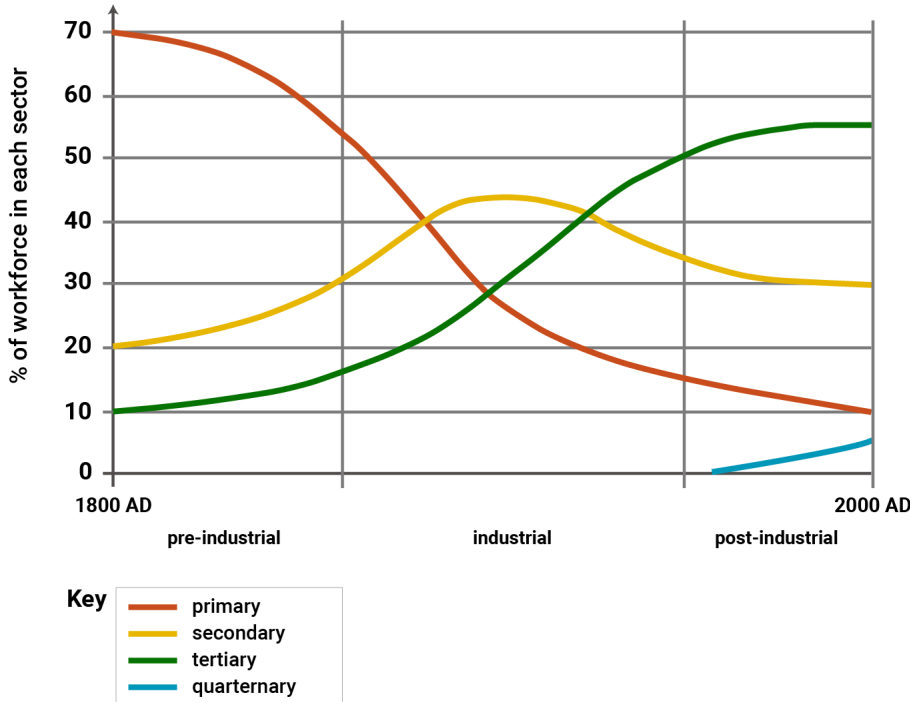
YEAR 9 GEOGRAPHY —GLOBALISATION

1 KEY VOCABULARY

Primary Industry	industry, such as mining, agriculture, or forestry, that is concerned with obtaining or providing natural raw materials for conversion into commodities and products for the consumer.
Secondary Industry	Industry that converts raw materials provided by the primary industry into commodities and products for the consumer; manufacturing industry.
Tertiary Industry	the part of a country's economy concerned with the provision of services.
Quaternary Industry	The sector of industry that involves the intellectual services: research, development, and information
Globalisation	the process by which businesses or other organizations develop international influence or start operating on an international scale.
Megacity	A megacity is a very large city, typically with a population of more than 10 million people.
LIC	Low income country—a developing poor country
HIC	A high income country—A developed rich country
NIC	Newly industrialising countries—Countries that are considered to be 'developing' but have experienced rapid growth (especially in manufacturing and industries) in recent years
MNC	A multinational company (MNC) is a corporate organization that owns and controls the production of goods or services in at least one country other than its home country.
Interdependence	The relationship between two or more living things where each one benefits from the other

2. EMPLOYMENT STRUCTURE

Figure 1: Changes over time in the employment structure of a country.



3. EMPLOYMENT STRUCTURE EXPLAINED

Countries in the early stage of development usually have a high percentage of the population in primary employment. This is because most people are engaged in agricultural activities.

As a country begins to develop an industrial base there is an increase in the secondary sector. An increase in machinery on farms means fewer people are needed. People tend to migrate to urban areas to get jobs in factories.

When a country becomes more economically developed there is a greater demand for services such as education, healthcare and tourism. Therefore the tertiary sector undergoes growth. By this time computers, machinery and robots replace people in the secondary sector hence the decrease in secondary jobs.

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YEAR 9 GEOGRAPHY—GLOBALISATION

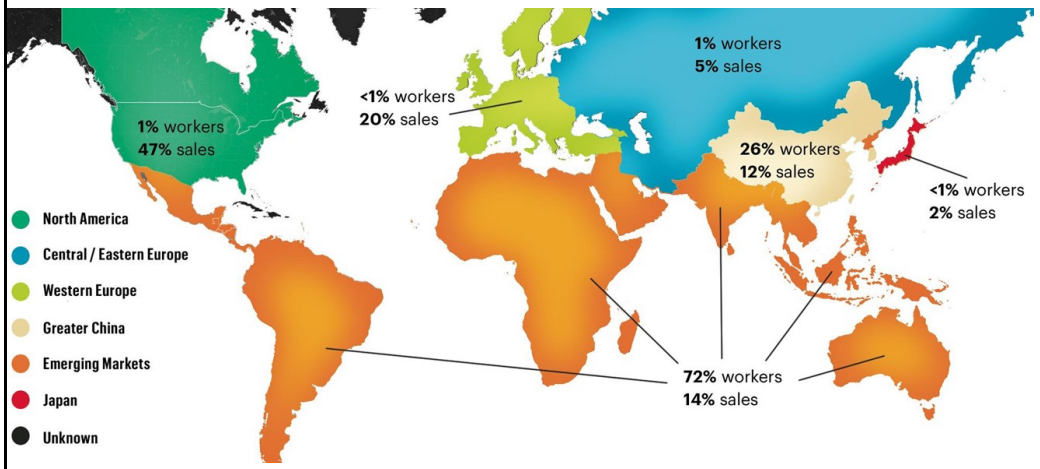
4. ADVANTAGES AND DISADVANTAGES OF MNCS

Advantages	Disadvantages
• They create jobs with the wages often being higher than the local companies and more reliable • The amount of disposable income that people have increases, stimulating the growth of the economy • Local companies that supply MNCs increase their income • When they are located in LEDCs they create skilled jobs and this triggers more education and training in that area • MNCs spend money on infrastructure and services and pay taxes that are used to develop the economy and country	• Countries can become over-reliant on MNCs which can lead to government decisions being influenced • Employees in LEDCs may have to work long hours in poor working conditions • Profits often go back to the country the MNC is based in • Local companies may struggle to compete or find workers so are forced to shut down • The jobs that are created are not always secure - the MNC could relocate at any time • Large sites attract large amounts of traffic, which increases air and noise pollution in the area • Employees in LEDCs may be paid lower wages than employees in MEDCs

5 NIKE SLAVE LABOUR

- Nike has been caught using slave labour to make it shoes at a low cost and making maximum profit. They have manufactured their shoes in multiple LIC countries. Recruiters in desperate countries can work for a company making their products. They must pay, sign contracts and give over their passports to get the job but once they start, they often find it difficult to escape.
- People are crammed into small spaces and live together with poor quality housing, little facilities and very poor sanitation.
- Workers are forced to work 6 days a week for very little money, this is an example of forced labour.
- Companies such as NIKE spend huge amounts of money on advertising and deals with sports persons but then have paid their workers very little money to make the shoes or clothes they are advertising.

6 MAPPING WHERE NIKE MAKES AND SELLS SHOES



7. CLEAN CLOTHES CAMPAIGN

The Clean Clothes Campaign is dedicated to improving working conditions and supporting the empowerment of workers in the global garment and sportswear industries. They educate and mobilise consumers; they lobby companies and governments at a regional and national scale; they train their workers. They also cooperate extensively with similar labour rights campaigns outside of their network to help others who aren't part of the campaign.

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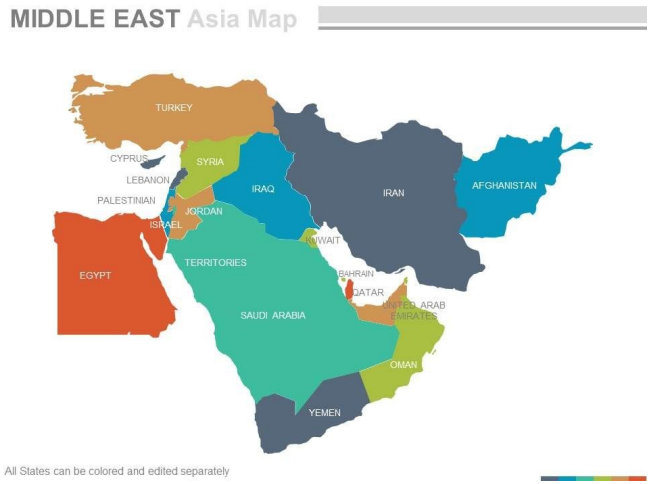
YEAR 9 GEOGRAPHY – MIDDLE EAST

1 KEY VOCABULARY

Development	A way of measuring the economic, social and environmental progress of a country
Middle East	A region based on countries around the Saudi Peninsular.
Climate	The average weather conditions over a 25 year period
Biomes	An ecosystem with a particular set of climatic conditions
Desert Biomes	A dry region with rainfall at less than 50 cm per year
Grassland Biomes	Characterised by grasses that can survive in the once yearly seasonal rainfall
Shrubland Biomes	Characterised by shrubs with a lack of trees due to the low annual rainfall and steep slopes.
Conflict	A disagreement over land or governance causing a war.
Saddam Hussein	Dictatorial leader of Iraq who caused the death of thousands of his own ethnic people.
Refugee	A person fleeing from war to another country

2 LOCATION OF THE MIDDLE EAST

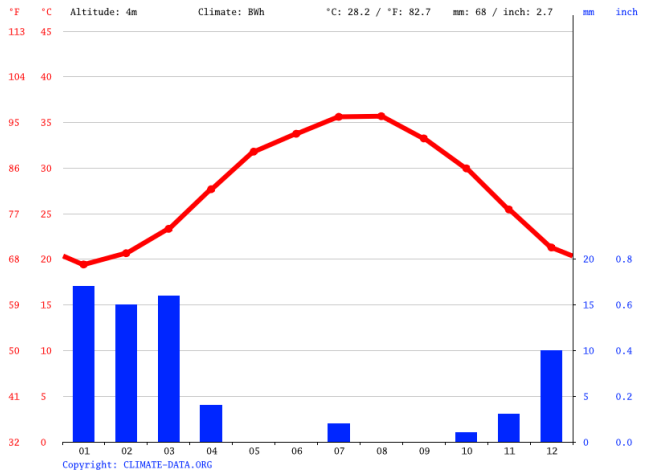
- Located in SW Asia and NE Africa
- Comprises 16 countries.
- Countries are changing due to political unrest.
- Original an Islamic region called the Ottoman Empire.
- Mostly Desert.
- Has large oil reserves.
- Depends a lot on Irrigation for food.
- Contains three major religions: Christianity, Judaism and Islam. This is a Major source of conflict.



3 CLIMATE OF THE MIDDLE EAST

A) Middle East's physical geography

- The Middle East is a transcontinental region, located where Asia, Africa and Europe meet.
- This region is rich in oil
- There are two seasons. Winter and summer. Even winters are hot.
- The climate can be described as arid. There is little rainfall in the region.
- The northern countries receive the most rainfall including Turkey and Syria.



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YEAR 9 GEOGRAPHY – MIDDLE EAST

4 BIOMES OF THE MIDDLE EAST

- The Middle East has three BIOMES *(a vegetation type grown in response to a climate)*

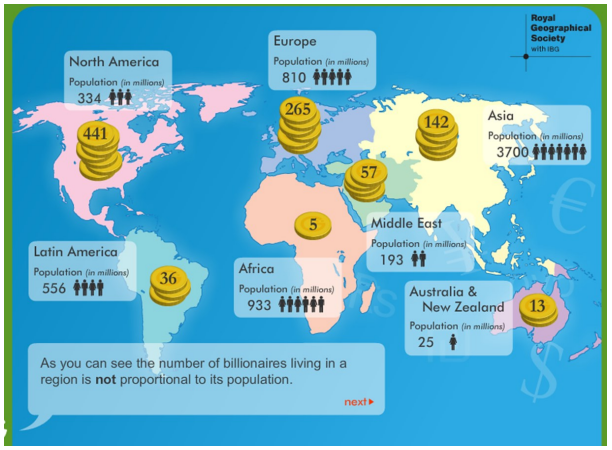
Desert Biome

Grassland Biome

Shrubland Biome

5 WEALTH IN THE MIDDLE EAST

- The Middle East has the greatest number of Billionaires per head of population.
- Causes of wealth include:
- Oil: The largest reserves are found in the Middle East and as NIC's develop, they are increasingly power hungry.
- Business and Finance: The Jebel Ali free trade zone offers tax free trading. The laws are very business friendly.
- Hi-Tech Industry: Microsoft and CNN now have business centres there.
- Tourism: People are attracted To the Burj Khalifa and the man made Palm islands.



6 CONFLICT IN THE MIDDLE EAST

D) Causes of war/conflict

- Economic gain (to take control of another country's wealth)
- Territorial gain (to take control of land)
- Nationalism (to prove your country is superior/better than another country)
- Civil war (fighting between different groups of people within the same country)
- Revolutionary war (when large numbers of people in a country tries to topple the government or leader of a country)

E) Causes of the civil war in Syria

1- Many people in Syria had been unhappy with President Assad for a long time. There was high unemployment and corruption.
2- In 2011 15 school children were arrested for writing anti-government graffiti on a wall. People were unhappy with this and so started to protest.
3- The government responded angrily opening fire and killing 4 protesters.
4- People demanded that the president resign. Fighting broke out between the president's supporters and those against the president (called rebels)
5- Russia and Iran became involved. Carrying out air strikes against cities held by rebel groups
6- The USA has shipped weapons to support the rebels
7- The UK and France carried out air strikes against government forces after they reportedly used chemical weapons against civilians (people not involved in the fighting)

Zoom

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Year 9 History – Hitler's rise to power

SECTION 1 – Key words

Weimar Republic	Democratic government set up after the abdication of the Kaiser, led by F. Ebert
Reichstag	The German Parliament
Chancellor	Like a Prime minister appointed by the President
Communism	People do not own land, factories, or machinery. Instead, the government or the whole community owns these things. Everyone is supposed to share the wealth that they create.
Fascism	Fascism is a right-wing form of government in which most of the country's power is held by one ruler
Constitution	Rules for how Germany was to be governed as a democracy

Section 3 – The Munich Putsch 1923

WHO? The Nazi party led by Hitler and General Ludendorff (a popular WW1 hero). There were 55,000 Nazi members and their own private army the SA.

WHY? Hitler and the Nazis hated democracy. They planned to take over Germany by force.

WHAT? The Nazis planned to take over the government and set General Ludendorff as leader of Germany. They started in Munich. Hitler and 600 of his SA burst into a meeting where the leader of Bavaria Von Kahr was speaking. They forced Kahr to support their plan.

SUCCESS? The Putsch was badly planned - Kahr left the meeting and informed the government. The Nazis were met by armed police and soldiers- 14 Nazis were killed. Hitler was arrested- the Putsch had failed. Hitler was put on trial but he impressed the judges by his speech which gave Hitler lots of publicity and led to a reduced prison sentence of 5 years and then cut to 9 months. Hitler had learned a very important lesson – taking control by force wouldn't work- he would have to take control through the democratic process.

Section 2 - Adolf Hitler – Profile

Early life

1889- Born in Austria. Unhappy at school. He is moody, shy and lonely. Poor at most subjects (except gym and ar

1903 –Father dies - Leaves school without any qualifications

1907- Mother dies. Goes to Vienna. Fails to gain a place at Academy of Fine Arts. Struggles to make any money and lives rough

1914- Joins the Germany army. Fights in WW1 as a messenger and wins the Iron Cross for bravery

1918- Angry to hear of Germany's surrender- feels betrayed by the government

Political Life

1919- Sent to spy on the German Workers' Party. Agrees with their idea**s**

1920 – Helps to rewrite their political programme. Party is renamed the National Socialist German Workers 'party (Nazi Party)

1921- Becomes leader and sets up the SA, the Nazi Party's private army. Support for the Nazi party grows. By 1922, 20,000 members

1923- Munich Putsch – Nazis try to overthrow the government by force but fail in the short term (**see section 3)**

1924 – In prison Hitler writes Mein Kampf (My Struggle). This outlines his main ideas about how Germany should be ruled. He is released from prison early and starts to rebuild the Nazi party improving the way it is organised and changing its tactics. His aim now is to use democratic means rather than force, to get into power

1928 - General Election. Nazis got under 3% of the overall votes in the election. Although membership of the Nazi Party has almost doubled between 1923-1928, the vast majority of Germans do not appear to be attracted to the Nazi Party. The reasons for this were that most of the working classes voted for the Social Democratic Party or if not the Communist Party , the Chancellor Stresemann had solved the economic problems Germany had faced in 1923 ,and people felt better off. Also many people were put off by Hitler's extreme ideas. They were put off by the anti semetic ideas and the talk of invading other countries.

1929. The Wall Street crash changed things all of this. When the US stock market crashed it led to many problems in the Us. People lost confidence to invest, which meant businesses lost money and many people were unemployed. USA asked for the money back they had loaned Germany during 1923. This impacted badly on Germany and by 1933 6 million people were unemployed. This economic crisis gave Hitler the opportunity he was looking for to gain more votes by promising the German people he would end the crisis.

1933 – People started voting for the Nazis making the biggest party in the Reichstag, leaving the President no option but to make Hitler **Chancellor.**

1934- President Hindenburg died, and Hitler combined the position of Chancellor and President to become Fuhrer of Germany

Year 9 History – Hitler's rise to power

Section 4 - Hitler's rise to power can be explained through

a) the Nazis and their own actions and b) the events that they had no control over

Nazi Propaganda (main reason why support grew). Organised by Josef Goebbels Nazis used the latest technology to spread their message. This included loud speakers and rallies gave the impression of discipline and order. They used powerful propaganda posters with simple slogans to spread their key ideas

Organisation- Nazis were well organised, which impressed voters. Money for their election campaigns came from rich businessmen and ordinary members. Nazi members worked hard in their locality to spread the message through leaflets and public meetings

Hitler's leadership skills played a crucial role in the Nazis rise to power. His speeches gave the Nazis a great deal of support. He came across as a strong leader who could solve Germany's problems

Nazi Promises- they said what people wanted to hear, to solve Germany's economic problems, provide strong leadership, ignore the Treaty of Versailles, build up the army and make Germany a great country again. They promised something for everyone.

The Wall Street Crash led to a terrible crisis in Germany and explains why many people started voting for Hitler. Many businesses went bankrupt and by 1932, 6 million people were unemployed. It made the government look weak. They couldn't decide what to do and when they did they actually cut back on the money they spent to help the poor. The Depression made people very angry. They blame the political parties governing the country and the democratic way the Weimar Republic was being governed. People started to support more extremist parties like the Nazis and the Communists

Weak Opposition. Nazis were lucky because their opponents were so weak. The Communists and the Social Democratic party were bitter enemies and not prepared to work together to stop the Nazis. They gave the impression of a weak government that couldn't solve the economic problems

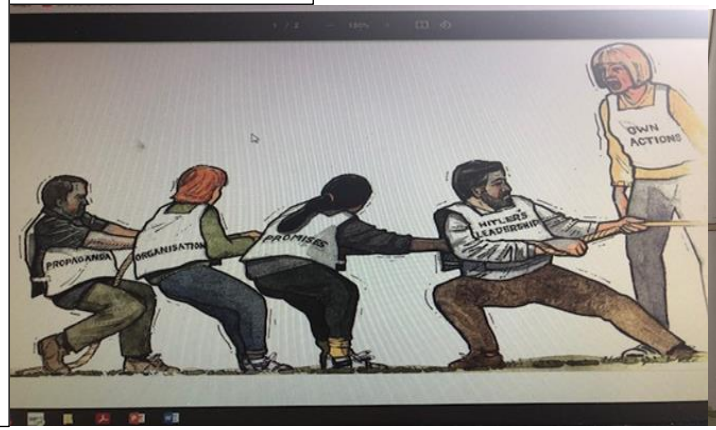
Fear of Communism. Many people particularly farmers and business owners voted for the Nazis because they were scared that the German Communist party the largest outside of the USSR would take over the country. They voted for the Nazis to stop them

A Political Deal. The Nazis were the biggest party but didn't have a majority. Hitler did a deal with Papen the leader of the Catholic Centre party. Hitler would be Chancellor and Papan, Vice Chancellor. This was supported by Hindenburg and business owners -they thought Papen not Hitler would control the government

Section 5 – Further research

Bitesize-
https://www.bbc.co.uk/bitesize/search?q=hitlers+rise+to+power

PLUS
https://www.mrallsophistory.com/revision/the-rise-of-hitler-



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Year 9 History: How and why did life change for different people in Nazi Germany?

Section 1—Keywords

Anti-Semetic	Hatred of the Jewish people.
Aryan	Person of German or Scandinavian origin, usually fair-haired and blue eyed; the Nazis believed that Aryans were superior to all other races.
Concentration camp	Camp in which people are held under harsh conditions and without the freedoms of the rest of society.
Confessional Church	German Protestant group determined to have nothing to do with the Nazis.
DAF (Deutsche Arbeitsfront)	German Labour Front—a Nazi organisation that workers had to belong to.
Edelweiss Pirates	Rebel youth gang which went camping and sang songs making fun out of Hitler; they even physically attacked Hitler Youth groups.
Eugenics	The science of improving a population by controlled breeding. Race Studies—a lesson on the German curriculum that taught about the superiority of the German Aryan race.
Euthanasia	Deliberate killing of a person
Final Solution	Nazi name given to their attempt to wipe out Europe's Jewish population between 1942 and 1945.
Indoctrination	Brainwashing—to teach someone to accept a belief without exception.
KDF (Kraft durch Freude)	Strength through Joy organisation; part of the German Labour Front that provided holidays and activities for ordinary Germans.
Lebensborn (Fountain of Life)	A Nazi movement to try to stop the population decline in Germany. Girls were taught in school that it was their duty to produce racially pure children. Women and girls received the best medical treatment at Lebensborn Centres.
Master Race	Elite race of people, to which Hitler believed the Germans belonged.
SDA	(Schonheit der Arbeit) beauty of Labour organisation: part of the German Labour Front that promoted working and workers.
Total War	Phrase introduced by Goebbels: meaning all Germans; soldiers and civilians must take an active part in the war.

Section 2—Young People

Schools were controlled by the Nazis. All teachers had to be Nazis and other were sacked. Textbooks and history were rewritten. They were indoctrinated (brainwashed) to think a certain way which included hatred of the Jewish people. Eugenics (race studies) was taught and there was a real emphasis on PE.

A picture from a German schoolbook showing Jewish people in a negative way.

Outside school were youth groups that were compulsory to join. For boys the 'Little Fellows' 6-10, 'Young folk' 10-14 and then the Hitler Youth. This included how to march, fight and keep fit. Girls - 'Young girls 10-14 and League of German Girls 14-17 keeping fit, preparing for motherhood. 7,287,470 members.

Some youth groups resisted including the White Rose, Swing Youth and Edelweiss Pirates.

Section 3—Women

A Nazi poster of the 'ideal' family.

Hitler said in 1934: 'The world of women is a smaller one. For her world is her husband, her family, her children and her house.' The Nazis had a clear idea of the role of women - Kinder, Kirche, Küche (children, church, cooking). The Nazis wanted to go back to traditional family values and also increase the population. Under the Nazis it was 'unladylike' for a woman to wear heels or trousers.

Professional women were sacked from their jobs and then did not count on the unemployment data. To encourage marriage, marriage loans were given to married couples of 1000 marks, then for each child they had they could keep 250 marks. This was linked to the Mutterkreuz (Mothercross), where mothers were rewarded for the number of children they had: bronze cross - 4 children, silver cross - 6 children and gold cross - 8 children.

Lebensborn were also set up for women to give a child to the Reich - 8000 births came from here. Gertrud Scholtz-Klink was the figurehead of the Women's League which gave advice. The birth rate rose from 970,000 in 1933 to 1,413,000 in 1939, however during the war the women were needed to help with the war effort.

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Section 4—Workers

Hitler had promised 'Arbeit und Brot' work and bread. The National Labour Service was set up for 18-25 year olds. Public Work Scheme built the autobahns, schools and hospitals. Rearmament also provided jobs and conscription for 18-25 year olds was introduced in 1935. Jews were sacked and women did not count in the unemployment figures. Hjalmar Schacht was given the job of getting Germany ready for war with the Four Year Plan. This created jobs in steel, textiles and shipbuilding. Farmers were seen as vital and were supported—Hitler cut taxes and ensured they would not be thrown of their land.. The DAF replaced trade unions and ran the Beauty of Labour (SDA) to improve working conditions and the Strength through Joy (KDF) with rewards (including saving for a VW beetle) to control workers.
Working conditions and pay were poorer and the workers had no voice.

Propaganda.

Section 5–Christians

There were 20 million Catholics and 40 million Protestants in Germany. Some Nazi ideas matched Christian ideas e.g. marriage, family, moral values and fear of Communism.
In 1933 Hitler signed the Concordat with the Pope; this meant that Hitler would not interfere with the catholic Church but likewise that the Catholic Church would not interfere with the Nazi State. However, Archbishop Galen criticised Hitler and the Nazi policy of euthanasia, he was put under house arrest.
Some Protestants supported Nazi ideas and Hitler appointed Ludwig Müller as Reich Bishop. Other Protestants formed the Confessional Church led by Pastor Martin Niemöller who criticised the Nazis. 800 pastors were arrested and he was sent to a camp.

Section 6—Jewish People and Undesirables

Hitler believed in a pure Aryan master race of strong, tall, blond haired, blue eyed Germans. Jewish people, gypsies, homosexuals, drunks and disabled were classed as undesirable. (They would all be discriminated against in Nazi Germany). As soon as Hitler came to power they began passing laws to drive out Jews including sacking lawyers and teachers. The Nuremberg Laws 1935 took away more rights and dissolved marriages. November 1938 - Kristallnacht (Night of Broken Glass) saw synagogues burned, shop windows smashed, Jews beaten, arrested and 100 killed. 20 000 were sent to concentration camps. Many Jews left Germany. Once the war started the Nazis used ghettos, execution squads (Einsatzgruppen) and camps. At the Wanasee Conference a Final Solution was planned including 6 extermination camps including Auschwitz where 1.1 million died. There was an uprising in the Warsaw Ghetto and Treblinka in 1943 but both put down. Around 6 million Jews were killed.


Jewish people in a liberated death camp.

Section 7—The war—1939-45

The start of the war was positive with many victories and luxury goods from the conquered countries. This changed after they invaded the USSR in 1941 and by 1944 Germany was facing a defeat. By November 1939 there was food and clothing rationing e.g. one egg per week. There were many ersatz (substitute) products. Hot water was rationed to two days per week.
1942 - Total War, everything was focussed on making weapons and growing food for soldiers. Factories were open longer, women were brought in and 7 million foreign workers as slave labour. British bombing had a real impact from 1942 disrupting water, electric, transport and there were many unexploded bombs.


German ration book.

Section 8—Exam Questions

4 mark questions:

Describe two ways in which Hitler reduced unemployment in Germany.
Describe two main features of the education of children in Nazi Germany.
Describe how the Nazis gained control over German Christians.
Describe two examples of armed resistance by Jews to the Nazis.

8 mark questions:

In what ways were the lives of women in Germany affected by Nazi social policies? Explain your answer.
In what ways were the lives of young people affected by Nazi policies? Explain your answer.
In what ways were German workers worse of in Nazi Germany? Explain your answer.

12 mark questions:

Which of the following groups were more affected by Nazi policies?
- Farmers and agricultural workers
- industrial and factory workers

Explain your answer with reference to both reasons.

Which of the following groups were most affected by Nazi policies?
- Women
- Young people

Explain your answer with reference to both reasons.

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Maths, Y9 - Formulae

1. Making and using word formulae

Mr Jones is organising an orienteering trip for his group of 6 students.

He uses these rules to work out what he needs.

He lets **p** stand for the **number of people**.

The number of maps needed is 3 more than the number of people.

m = p + 3

For 6 students p = 6

m = 6 + 3

m = 9

Mr Jones needs 9 maps

For every 2 people we need 1 compass.

c = p ÷ 2

For 6 students p = 6

c = 6 ÷ 2

c = 3

Mr Jones needs 3 compasses

We need 3 fewer bags than the number of people.

b = p - 4

For 6 students p = 6

b = 6 - 4

b = 2

Mr Jones needs 2 bags

Buy 2 snacks per person plus 5 extra.

s = 2p + 5

For 6 students p = 6

s = 2 x 6 + 5

s = 12 + 5

s = 17

Mr Jones needs 17 snacks

2. Substituting into formulae

Consider the formula

v = u + at

This formula can be used to calculate **v**.

Find v when u = 10, a = 2, t = 5.

v = 10 + 2 x 5

= 10 + 10

= **20**

Find v when u = 5, a = -4, t = 0.5.

v = 5 + (-4) x 0.5

= 5 + - 2

= **3**

When substituting make sure you remember to apply BIDMAS

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

This formula is used to calculate the **volume of a cone**.

Find v when r = 3 and h = 8.

$v = \frac{1}{3} \times \pi \times 3^2 \times 8$

$= \frac{1}{3} \times \pi \times 9 \times 8$

$= \frac{1}{3} \times 72 \times \pi$

$= 24\pi$

= **75.40 cm³** (2 d.p.)

$s = 2\pi rh + 2\pi r^2$

This is the formula for the **surface area of a cylinder**.

Find s when r = 1.5 and h = 6

$s = 2 \times \pi \times 1.5 \times 6 + 2 \times \pi \times 1.5^2$

$= 18\pi + 2 \times \pi \times 2.25$

$= 18\pi + 4.5\pi$

$= 22.5\pi$

= **70.69 cm²** (2 d.p.)

3. Rearranging formulae

A. one step

$a = bh$

a is the **subject** of the formula.

Make **b** the subject of the formula.

In this formula **b** is multiplied by **h**.

To make **b** the subject we need to undo this process

Divide by h: $\frac{a}{h} = \frac{bh}{h}$

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

B. two step

$v = u + at$

Make **a** the subject of this formula.

This formula takes a variable **a**, multiplies it by **t,** then adds **u**.

Reverse this one step at a time

Subtract u: $v - u = at$

Divide by t: $\frac{v-u}{t} = a$

$a = \frac{v-u}{t}$

C. formulae containing brackets

$x = p(y + q)$

Make **y** the subject of this formula.

We have started with **y**, added **q**, then multiplied the result by **p**.

To make **y** the subject we need to:

Divide by p: $\frac{x}{p} = y + q$

Subtract q: $\frac{x}{p} - q = y$

$y = \frac{x}{p} - q$

D. formulae containing fractions

$\frac{a+5}{x} = 3b$

Make **x** the subject of this formula.

It would be easier to rearrange if there were no fractions, so we should undo the fractions first.

Multiply by x: $a + 5 = 3bx$

x has been multiplied by 3b

Divide by 3b: $\frac{a+5}{3b} = x$

$x = \frac{a+5}{3b}$

E. rearranging quadratic formulae

$\frac{ax^2 + f}{e} = b$

Make **x** the subject of this formula.

In words, we start with **x**, square it, multiply by **a** then add **f** and finally divide everything by **e**.

To make **x** the subject, undo the process.

Multiply by e: $ax^2 + f = be$

Subtract f: $ax^2 = be - f$

Divide by a: $x^2 = \frac{be-f}{a}$

Square root both sides:

$x = \sqrt{\frac{be-f}{a}}$

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Maths Y9 - Graphs

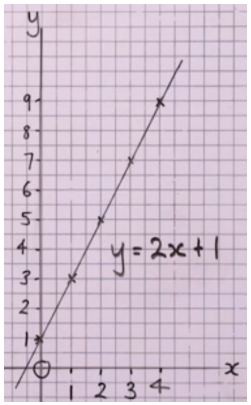
1. Plotting straight line graphs using a table

Draw the graph of the line $y = 2x + 1$

To get the y coordinate given the x:

x → **X 2** → **+ 1** → y

X	0	1	2	3	4
y	1	3	5	7	9



Plot the coordinates from the table

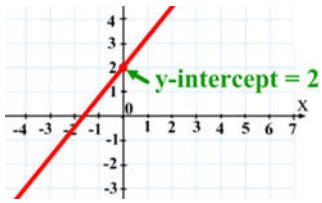
(0, 1) (1, 3) (2, 5) (3, 7) (4, 9)

Your points should form a straight line.

Join the points with a ruler.

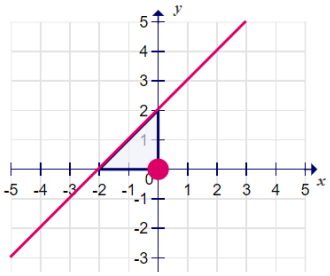
2. Intercept

Where the line crosses the y axis. It can be written as a coordinate (0, 2)



3. Gradient

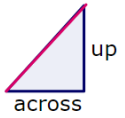
How steep the line is, the steeper the line the bigger the gradient.



If the line goes up from left to right it has a **positive** gradient.

If the line goes down from left to right it has a **negative** gradient.

We draw a triangle under the line, and calculate the value of:

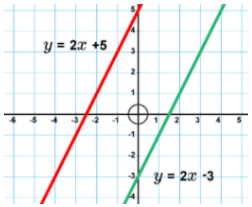


$$\frac{\text{up}}{\text{across}} = \frac{2}{2} = 1$$

5. Parallel lines

Parallel lines are like train tracks they stay the same distance apart and never meet.

Parallel lines have the same gradient



4. The equation of a straight line

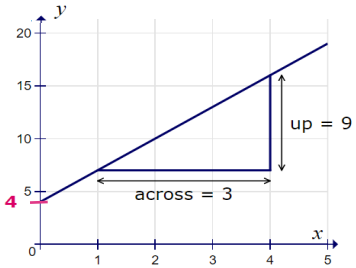
y = mx + c

m = gradient of the line

c = y intercept

(where the line crosses the y axis)

Find the equation of this line



This line intercepts the y axis at 4.

$c = 4$

$y = mx + 4$

The gradient is:

$$\frac{\text{up}}{\text{across}} = \frac{9}{3} = 3$$

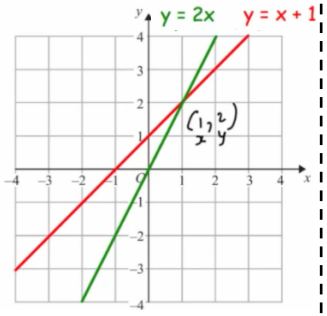
$m = 3$

The equation of this line is: $y = 3x + 4$

6. Solving simultaneous equations graphically

Solve these simultaneous equations by drawing their graphs.

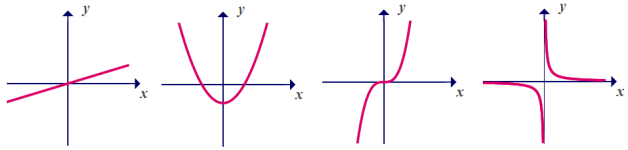
y = 2x and y = x + 1



The point of intersection is (1,2). x = 1 and y = 2

The coordinates of the **point of intersection** are the solution of the simultaneous equations.

7. Recognising graphs



linear **quadratic** **cubic** **reciprocal**

8. Plotting quadratic graphs

Draw the graph of $y = 2x^2 + 5x - 4$ for $-3 \le x \le 3$?

x	-3	-2	-1	0	1	2	3
$2x^2$	18	8	2	0	2	8	18
$5x$	-15	-10	-5	0	5	10	15
-4	-4	-4	-4	-4	-4	-4	-4
y	-1	-6	-7	-4	3	14	29

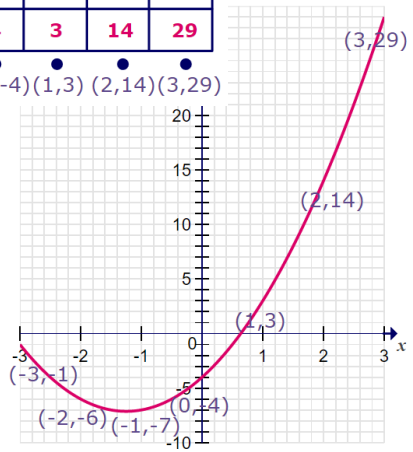
(-3,-1) (-2,-6) (-1,-7) (0,-4) (1,3) (2,14) (3,29)

To work out $2x^2$, first square x, then multiply by 2.

$(-3)^2 = 9$

2 x 9 = 18

Calculate each term separately and then add your answers for each row of the table together to find the y coordinate.



9. Plotting cubic graphs

Draw the graph of $y = x^3 - 5x^2 + x + 2$ for $-1 \le x \le 5$.

x	-1	0	1	2	3	4	5
x^3	-1	0	1	8	27	64	125
$-5x^2$	-5	0	-5	-20	-45	-80	-125
x	-1	0	1	2	3	4	5
2	2	2	2	2	2	2	2
y	-5	2	-1	-8	-13	-10	7

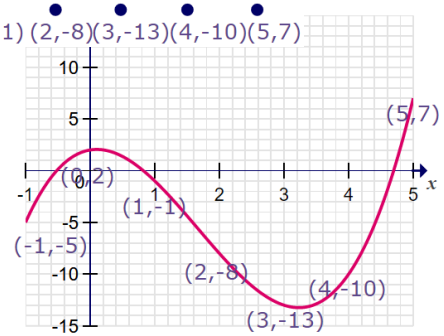
(-1,-5) (0,2) (1,-1) (2,-8) (3,-13) (4,-10) (5,7)

Remember, to work out $-5x^2$, first square x, then multiply by -5.

$(-1)^2 = 1$

-5 x 1 = -5

Calculate each term separately and then add your answers for each row of the table together to find the y coordinate.



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Maths, Y9 - Percentages (Calculator)

1. Finding percentages of amounts

We can use decimals to help find a **percentage of** something.

Calculate 42% of 500

Convert the percentage to a decimal.

Divide by 100: 42% = 42 ÷ 100 = 0.42

Multiply 500 by 0.42: 500 x 0.42 = **210**

Calculate 87% of 94

Convert the percentage to a decimal.

Divide by 100: 87% = 87 ÷ 100 = 0.87

Multiply 94 by 0.87: 94 x 0.87 = **81.78**

2. Percentage increase & decrease

A bank pays 15% interest per year.

How much will I have if I invest £20 for one year?

Step 1 - find the percentage multiplier:

100% + 15% = 115%

115% is equivalent to 1.15

1.15 is the **multiplier.**

Step 2 - multiply the original amount by the multiplier:

£20 x 1.15 = **£23**

A woman goes out to buy a scarf for £18. The shop is having a 35% off sale.

How much did the woman pay for the scarf?

Step 1 - find the percentage multiplier:

100% - 35% = 65%

65% is equivalent to 0.65

0.65 is the **multiplier.**

Step 2 - multiply the original amount by the multiplier:

£18 x 0.65 = **£11.70**

3. Percentage change

$$\text{percentage change} = \frac{\text{actual change}}{\text{original amount}} \times 100\%$$

The number of workers at a factory is reduced from 721 to 684.

Calculate the percentage reduction.

Step 1 - find the actual reduction:

721 - 684 = 37

Step 2 - find the percentage reduction:

$\frac{37}{721} \times 100 =$ **5.1%** (1 d.p.)

4. Reverse percentages

In these questions we are given the value after the percentage change and need to find the **original amount.**

A TV set costs £190 in the sale.

What did it cost before the sale?

A 5% decrease gives a multiplier of 0.95

We have	original price	→	×0.95	→	£190
Working backwards	?	←	÷0.95	←	£190

The original price is £190 ÷ 0.95 = **£200**

Saim invests some money at 2% interest. After 1 year it is worth £204.

How much did he invest?

An increase of 2% gives a multiplier of 1.02

We have	original price	→	× 1.02	→	£204
Working backwards	?	←	÷ 1.02	←	£204

The original investment is £204 ÷ 11.02 = **£200**

5. Repeated percentage increase & decrease

Gemma invests £16500 for 8 years at a compound interest rate of 9% a year.

Calculate the value of Gemma's savings after 8 years.

Initial amount = £16500, interest rate = 9%, number of years = 8

$V = 16500 \times (1 + 0.09)^8$

$V = 16500 \times (1.09)^8$

= **£32877.28**

A new computer costs £1400.

It depreciates by 8% per month.

Calculate the value of computer after 15 months.

Initial amount = £1400, rate of depreciation = 8%, number of months = 15

$V = 1400 \times (1 - 0.08)^{15}$

$V = 16500 \times (0.92)^{15}$

= **£400.82**

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Maths, Y9—Transformations

1. Keywords

Reflection

Translation

Rotation

Enlargement

Scale Factor

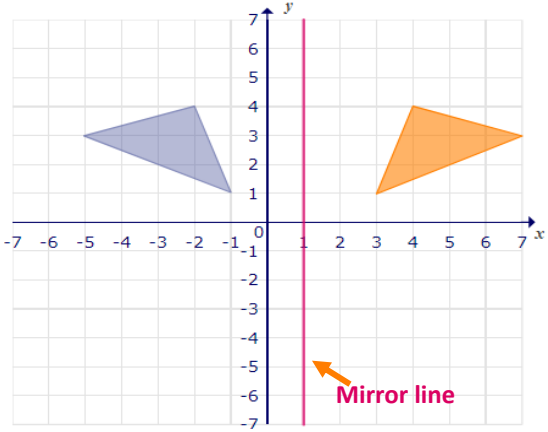
Mirror Line

Centre of Rotation

2. Reflection

Shapes can be transformed by **reflection.**

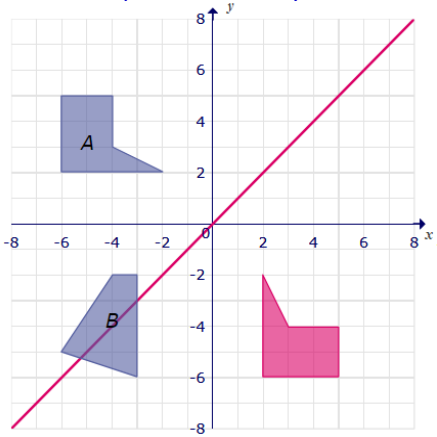
To describe a reflection, you need to say where the **mirror line** is.



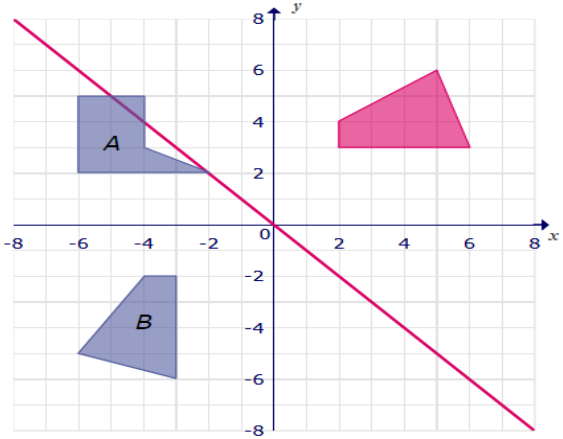
Describe the reflection.

The shape has been reflected in the mirror line $x = 1$

Reflect shape A in the line $y = x$.



Reflect shape B in the line $y = -x$.

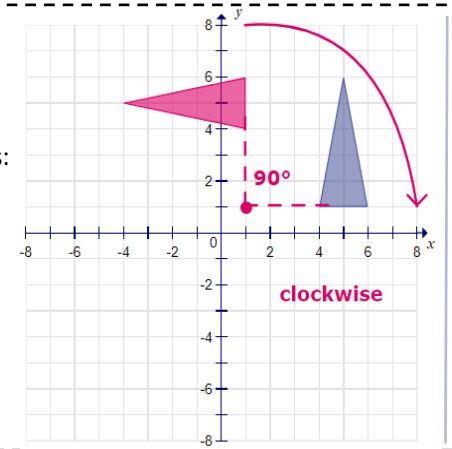


3. Rotation

Shapes can be transformed by **rotation.**

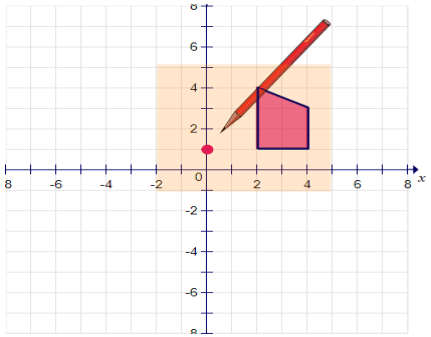
To describe a rotation you need to state **3** things:

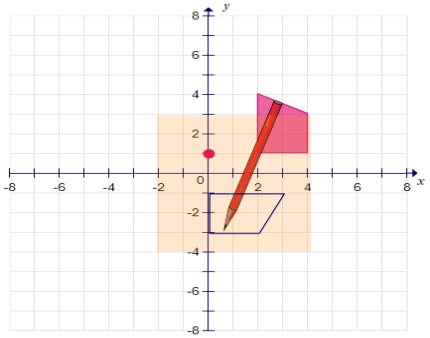
- The **centre** of rotation
- The **angle** of rotation
- The **direction** of rotation (**clockwise** or **anticlockwise**)



Rotating shapes using tracing paper

Use tracing paper to rotate this shape 90° clockwise about the point (0,1)



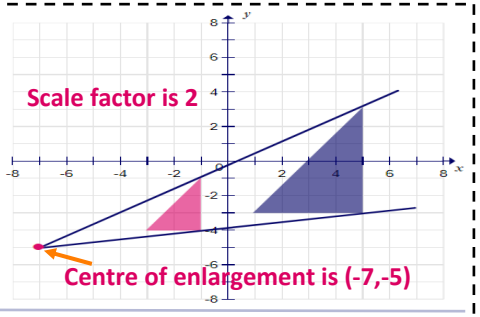


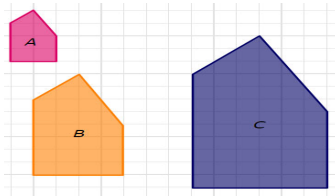
4. Enlargement

Shapes can be transformed by **enlargement.**

To describe an enlargement you need to state **2** things:

- How many times bigger the shape has become. This is called the **scale factor**.
- Where the **centre of enlargement** is.





Find the scale factors of these enlargements.

A to B:	2
A to C:	3
B to A:	0.5

5. Translation

Shapes can be transformed by **translation.**

To describe an translation you need to state **2** things:

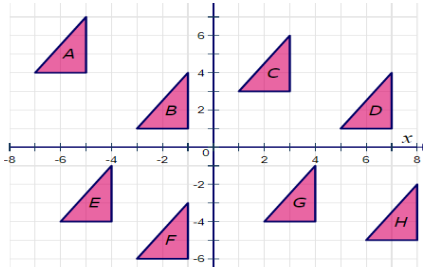
- How many units left or right the shape has moved.
- How many units up or down the shape has moved.

We communicate this information by using a **vector**.

$\begin{pmatrix} 3 \\ 2 \end{pmatrix}$

This number tells you **how many units across** it goes. The shape will move **3 units** to the **right**.

This number tells you **how many units up or down** it goes. The shape will move **2 units up**.



Describe the translations.

D to G: translated by the vector $\begin{pmatrix} -2 \\ -5 \end{pmatrix}$

G to E: translated by the vector $\begin{pmatrix} -8 \\ 0 \end{pmatrix}$

C to H: translated by the vector $\begin{pmatrix} 5 \\ -8 \end{pmatrix}$

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Maths, Y9 - Data

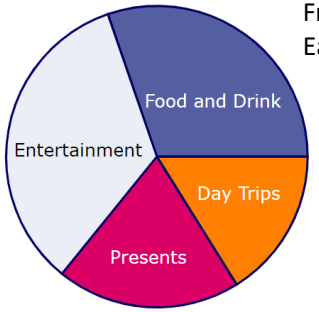
1. Pie Charts

In a pie chart the size of a segment represents its **proportion**.

To calculate the angles needed to draw the pie chart, divide 360° by the total frequency, this gives you an angle multiplier.

Freya worked out how she spent her holiday money.

reason	£		degrees
Food and Drink	32	32 × **3.396...** = **108.679°**	109°
Entertainment	36	36 × **3.396...** = **122.264°**	122°
Presents	21	21 × **3.396...** = **71.321°**	71°
Day Trips	17	17 × **3.396...** = **57.736°**	58°
			360°



Freya's total spend was £106
Each pound would have
360 ÷ 106 = **3.396...°**
At this stage we do not round this value
Each pound needs **3.396...°** of the pie chart.

The pie chart shows the proportions of Freya's money that she spent on each category.

2. Using group frequency tables

age	freq.
16-18	56
19-21	64
22-25	92
26-29	12

A survey is taken at the gym to ask people their age.
The data was put into categories called classes.

Modal class: the group with the highest frequency.
22 - 25

Class containing the median: the group in which the middle value can be found. There are 224 people in total, so we are looking for the group which contains the 112th person.
19 - 21

Estimate of the mean: 56 people are between 16 and 18. We do not know how many are 16, 17 or 18. We can make an estimate that on average these 56 people were 17 years old, because 17 is the midpoint of 16 and 18. Find the midpoint for each group and then multiply the midpoints by the frequency, this gives the total ages.
Now add together the total ages and divide this answer by the total frequency.

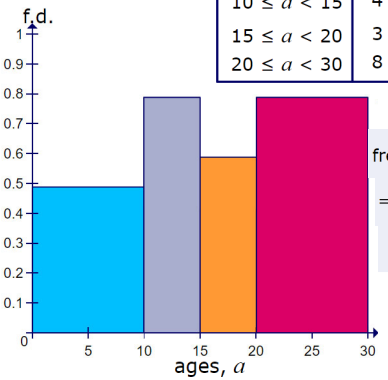
$$\frac{4724}{224} = 21.1$$

age	freq.	mid-point	total age freq×midpoint
16-18	56	17	952
19-21	64	20	1280
22-25	92	23.5 ✓	2162 ✓
26-29	12	27.5 ✓	330 ✓
	224 ✓		4724 ✓

5. Histograms

Histograms look very similar to **bar charts**.
The difference is that a histogram can have bars of **different widths**.
The **frequency** is then measured by the **area of each bar**, not the height.

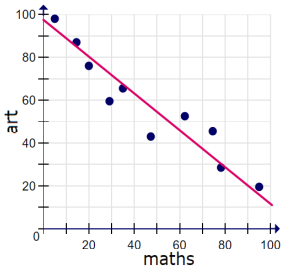
ages, a years	freq.	f.d.
$0 \le a < 10$	5	5÷10 = 0.5
$10 \le a < 15$	4	4÷5 = 0.8
$15 \le a < 20$	3	3÷5 = 0.6
$20 \le a < 30$	8	8÷10 = 0.8



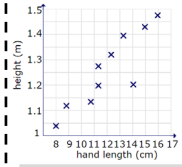
frequency density = $\frac{\text{frequency}}{\text{class width}}$

3. Scatter diagrams

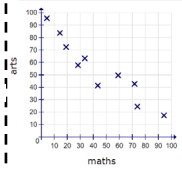
This **scatter graph** shows test results in maths and art.
There is a **strong negative correlation**.
We can predict the art score of a student who scores 40 in maths.
We need a **line of best fit**. A line of best fit follows the trend of the data, with roughly the same amount of points either side of the line.
The line of best fit shows a student scoring 40 marks in maths will score around 63 marks in art.
Using the line of best fit to make a prediction is called **interpolation**.



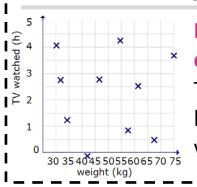
A. Correlation



Positive correlation
As one variable increases so does the other



Negative correlation
As one variable increases the other decreases



No correlation
There is no link between the variables

4. Inter-quartile range

A. Box plots

A survey was made of the lengths of 12 worms.
Here are the results. The lengths are in cm.

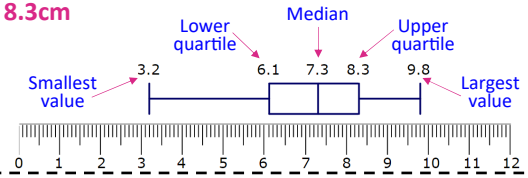
8.4 9.8 5.5 8.2 6.8 7.8 3.2 9.1 6.8 5.0 6.7 8.2

Find the median, lower quartile and upper quartile.

Firstly, put the numbers into size order.

3.2 5.0 5.5 | 6.1 6.7 6.8 | 6.8 7.8 8.2 | 8.2 8.3 8.4 9.1 9.8

The **median** is the halfway point. 50% of the worms are less than **7.3cm**
The **lower quartile** is a quarter of the way into the data. 25% of the worms are less than **6.1cm**
The **upper quartile** is three quarters of the way into the data. 75% of the worms are less than **8.3cm**



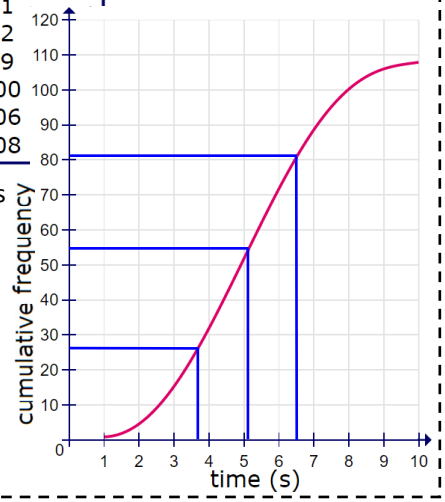
B. Cumulative frequency graphs

time t (s)	freq.	cumulative frequency
$0 < t \le 1$	1	1
$1 < t \le 2$	3	1 + 3 = 4
$2 < t \le 3$	12	4 + 12 = 16
$3 < t \le 4$	16	16 + 16 = 32
$4 < t \le 5$	19	51
$5 < t \le 6$	21	72
$6 < t \le 7$	17	89
$7 < t \le 8$	11	100
$8 < t \le 9$	6	106
$9 < t \le 10$	2	108

Cumulative frequency is a running total.

Plot the cumulative frequency against the value at the end of the group.

There are 108 values
Median = 54th value
= 5.1
Lower quartile
= 27th value
= 3.7
Upper quartile
= 81st value
= 6.5



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Year 9 French Summer Le collège

les matières

MON COLLÈGE

Les matières scolaires	*School subjects*
le français	*French*
le théâtre	*drama*
la géographie/la géo	*geography*
la musique	*music*
la technologie	*technology*
l'anglais	*English*
l'EPS	*PE*
l'histoire	*history*
l'informatique	*ICT*
les arts plastiques	*art*
les maths	*maths*
les sciences	*science*

Les raisons	*Reasons*
C'est …	*It's …*
intéressant	*interesting*
ennuyeux	*boring*
facile	*easy*
difficile	*difficult*
génial	*great*
nul	*rubbish*
marrant	*fun/funny*
On a beaucoup de devoirs.	*We have a lot of homework.*
Le/La prof est sympa.	*The teacher is nice.*
Le/La prof est trop sévère.	*The teacher is too strict.*

plus____que = more____than

moins____que = less____than

e.g. **J'aime le dessin moins que l'EPS.**
I like art less than PE.

Les mots essentiels	*Essential words*
à	*at*
et	*and*
aussi	*also*
mais	*but*
très	*very*
trop	*too*
assez	*quite*
un peu	*a bit*
pourquoi?	*why?*
parce que	*because*
beaucoup (de)	*a lot (of)*
tous les jours	*every day*
aujourd'hui	*today*
pardon	*excuse me*
merci	*thank you*
avec	*with*
est-ce que (tu) …?	*do (you) … .?*
qu'est-ce que (tu) …?	*what (do you) … ?*

Quelle heure est-il?	*What time is it?*
Il est …	*It's …*
huit heures	*eight o'clock*
huit heures dix	*ten past eight*
huit heures et quart	*quarter past eight*
huit heures et demie	*half past eight*
neuf heures moins vingt	*twenty to nine*
neuf heures moins le quart	*quarter to nine*
midi	*midday*
minuit	*midnight*
midi et demie	*half past midday*
minuit et demie	*half past midnight*

L'emploi du temps	The timetable
le lundi	*on Mondays*
le mardi	*on Tuesdays*
le mercredi	*on Wednesdays*
le jeudi	*on Thursdays*
le vendredi	*on Fridays*
le matin	*(in) the morning*
l'après-midi	*(in) the afternoon*
le lundi matin	*on Monday morning*
la récréation/la récré	*breaktime*
le déjeuner	*lunch*
À (9 heures) j'ai…	*At (9am)I've got…*

La journée scolaire	*The school day*
On a cours (le lundi).	*We have lessons (on Mondays).*
On n'a pas cours …	*We don't have lessons …*
On commence les cours à …	*We start lessons at …*
On a quatre cours le matin.	*We have four lessons in the morning.*
On étudie neuf matières.	*We study nine subjects.*
À la récré, on bavarde et on rigole.	*At break, we chat and have a laugh.*
On mange à la cantine.	*We eat in the canteen.*
On finit les cours à …	*We finish lessons at …*
On est fatigués.	*We are tired.*

P = Permanence – *supervised study period*

VIE DE CLASSE – *form/class period (with form/class teacher)*

ATP = heure d'aide aux devoirs – *help with homework*

https://quizlet.com/gb/605054431/allez-1-unit-23-lecole-tu-aimes-flash-cards/

A* phrase

Ce que j'aime le plus c'est…	What I like the most is…
Ce que j'aime le moins c'est…	What I like the least is…

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LES RÈGLES SCOLAIRES	
Il faut/ On peut	*You must*
Il ne faut pas On ne peut pas	*You must not*
faire ses devoirs	*do your homework*
porter des bijoux	*wear jewellery*
porter du maquillage	*wear makeup*
porter l'uniforme	*wear uniform*
utiliser un portable	*use a mobile phone*
mâcher du chewing-gum	*chew gum*
manger en classe	*eat in class*
parler en classe	*speak in class*
être à l'heure	*be on time*

les profs

Teachers	**Mon prof de (sciences) / ma prof de (sciences)**– My (science) teacher	**est** - is	**patient** – patient **impatient** – impatient **tolérant** – tolerant **sévère/stricte** – harsh/strict **intelligent** – clever **travailleur** – hardworking **paresseux** – lazy **sympa** – nice **méchant** – mean
		enseigne bien – teaches well **a un bon sens de l'humour** – has a good sense of humour **crée un bon environnement** – creates a good atmosphere **ne se fâche pas**– never gets angry **me fait réfléchir** – makes me think **nous donne pas beaucoup de devoirs** –doesn't give us a lot of homework	

VOULOIR / POUVOIR / to want DEVOIR

je peux	**je veux**	**je dois**
tu peux	**tu veux**	**tu dois**
il/ elle / on peut	**il/ elle / on veut**	**il/ elle / on doit**
nous pouvons	**nous voulons**	**nous devons**
vous pouvez	**vous voulez**	**vous devez**
ils peuvent	**ils veulent**	**ils doivent**

to be able to **to have to**

False Friends

le directeur/la directrice	headteacher
passer un examen	to take an exam
réussir un examen	to pass an exam
la journée scolaire	school day
sale	dirty
durer	to last

classe

PRESENT TENSE

	ER VERBS	IR VERBS	RE VERBS
Je	e	is	s
Tu	es	is	s
Il/Elle/On	e	it	-
Nous	ons	issons	ons
Vous	ez	issez	ez
Ils/Elles	ent	issent	ent

https://quizlet.com/gb/669107315/les-profs-flash-cards/

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Year 9 French Summer La technologie et le cinéma

	les appareils numériques	
1	*keyboard*	le clavier
2	*to click*	cliquer
3	*screen*	l'écran
4	*printer*	l'imprimante
5	*file*	le fichier
6	*digital*	numérique
7	*laptop*	l'ordi portable
8	*computer*	l'ordinateur
9	*tablet*	la tablette
10	*software*	le logiciel
11	*ringtone*	la sonnerie
12	*key*	la touche

Technology

J'utilise toujours– I always use

mon ordinateur – a computer
mon ordinateur portable – a laptop
mon **portable** – a mobile phone

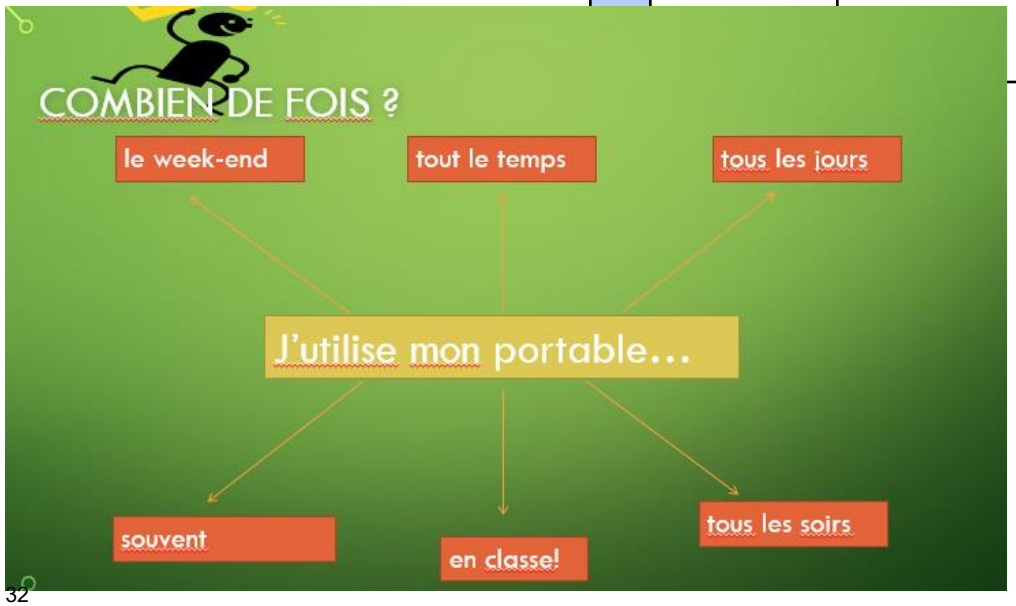
pour – *for/to*

pour que je puisse

regarder mes séries préférées – *watch my favourite series*
organiser les sorties avec mes amis – *organise to go out with my friends*
contacter ma famille – *get in touch with my family*
tchatter avec mes amis – *chat to my friends*
télécharger/écouter de la musique – *download/listen to music*
passer le temps– *pass time*
prendre/ partager des photos – *take/share photos*
envoyer des messages – *send messages*
surfer sur Internet– *browse the internet*
envoyer - *to send*
enregistrer – *to record*
recevoir – *to receive*

	la communication	
1	to send	envoyer
2	chat room	le forum
3	online	en ligne
4	password	le mot de passe
5	to download	**télécharger**
6	to watch	regarder
7	social network	le réseau social
8	to stay in contact	rester en contact
9	to purchase	faire des achats
10	to talk online	tchatter
11	to surf the internet	surfer sur internet

https://quizlet.com/ca/345166829/les-reseaux-sociaux-flash-cards/



https://quizlet.com/56867435/la-technologie-flash-cards/

Si on demande mon avis, je dirais que c'est

extensif – *extensive*
amusant – *fun*
nécessaire – *necessary*
disponible - *available*
dangereux - *dangerous*
pratique – *practical*
rapide – *fast*
facile à utiliser – *easy to use*

populaire – *popular*
utile – *useful*
gratuit – *free*
ridicule – *ridiculous*
lent – *slow*
simple – *simple*
interactif – *interactive*

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Year 9 French Summer La technologie et le cinéma

Que fais-tu sur internet? Que fais-tu quand tu es connecté?	What do you do on the internet ?
je surfe sur internet	*I surf the net*
je fais des achats en ligne	*I make purchases on line*
je fais des recherches pour mes devoirs	*I do research for my homework*
j'envoie des emails	*I send emails*
je regarde des vidéos	*I watch videos*
je vais sur des sites intéressants	*I go to interesting sites*
je télécharge de la musique	*I download music*
je lis des livres sur ma liseuse	*I read books on my kindle*

Qu'as-tu fait récemment sur ton portable et les réseaux sociaux?	What did you recently do on your phone and social media?
Hier soir, **j'ai joué** à des jeux sur mon portable et **c'était** excellent .	Last night, **I played** games on my phone and **it was** excellent.
Puis, j'ai envoyé des emails et **j'ai téléchargé** des films	**Then, I sent emails** and **I downloaded** some movies
Ensuite, j'ai surfé sur internet et **je suis allée sur** les réseaux sociaux.	Next, **I surfed** on the net and **I went on** social media
Par exemple, j'ai utilisé Instragram pour poster des photos	**For example, I used** Instagram to post some photos

avantages/ inconvénients		
	Il y a beaucoup d'avantages des réseaux sociaux, par exemple... - there are lots of advantage of social media, for example…	**c'est une bonne façon de communication** – it is a good way of communication **c'est plus facile de faire des devoirs** – it's easier to do homework **faire des achats en ligne est moins cher** – online shopping is cheaper **on peut discuter de ses problèmes avec des autres** – you can talk to other people about your problems
	Les réseaux sociaux ont beaucoup d'inconvénients, par exemple... - social media has a lot of disadvantages	**on peut devenir accro**– you can become hooked **la cyberintimidation est un problème** – cyberbullying is a problem **il y a beaucoup de pression d'avoir le portable le plus récent** ... – there is a lot of pressure to have the latest phone **c'est une perte de temps** – it's a waste of time **il y a beaucoup de risques** – there are a lot of risks

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Year 9 French Summer La technologie et le cinéma

	Au cinéma	
1	les films d'action	*action films*
2	les films policiers	*police films*
3	les comédies	*comedies*
4	les dessins animés	*cartoons*
5	les fims d'horreur	*horror films*
6	les films de science fiction	*sci fi films*
7	le fim de guerre	*war films*
8	l'écran	*the screen*
9	le billet	*the ticket*
10	les effets spéciaux	*special effects*
11	une réduction	*a discount*
12	commencer	*to start*
13	coûter	*to cost*
14	à plein tarif	*at full price*
15	regarder	*to watch*
16	l'argent	*money*

J'adore les films qui me font pleurer/ rire / réfléchir
I love films that make cry/ laugh/ think.

Je préfère aller au cinéma car
I prefer to go to the cinema because
.) j'aime regarder un film sur grand écran.
I like to watch a film on a big scrren
.) j'aime manger du pop-corn.
I like eating pop-corn
.) les effets spéciaux sont meilleurs .
special effects are better

Je préfère regarder un DVD car
I prefer watching a DVD because
.) c'est moins cher *it is less expensive*
.) on peut le regarder autant de fois que l'on veut *you can watch it as many times you like*
.) on peut le regarder en pyjama *you can watch it in your pyjamas*
.) ca m'énerve les gens qui font du bruit en mangeant *it annoys me people who make noise whilst eating*

https://quizlet.com/297848475/le-cinema-flash-cards/

opinions sur les films

J'adore– I love
J'aime– I like
Je préfère – I prefer
Ce que j'aime , c'est
what I like is
J'ai une passion pour…
I've got a passion for
Je suis fan de…
I'm fan of
Je suis accro de …
I'm addicted to

Je ne supporte pas– I can't stand
Je ne regarde jamais - I never watch
Je déteste – I hate

les films de ……
les comédies

car c'est – because it is

amusant
divertissant – entertaining
informatif – informative
passionnant– exciting
intéressant – interesting
émouvant – *moving*
spectaculaire – *spectacular*
prenant *absorbing*
bouleversant *moving*
mignon *cute*
formidable *great*

ennuyeux/ boring
bête– silly
nul– rubbish
pour les enfants – for kids
effrayant –*scary*
ridicule -*ridiculous*

34

el autocar	*coach*
el avión	*plane*
el barco	*boat*
la bicicleta	*bicycle*
el coche	*car*
la motocicleta	*motorbike*
el tren	*train*
voy...	*I go/I'm going...*
...a pie	*on foot*
...en autocar	*by coach*
...en avión	*by plane*
...en barco	*by boat*
...en bicicleta	*by bike*
...en coche	*by car*
...en motocicleta	*by motorbike*
...en tren	*by train*
Alemania	*Germany*

1

Egipto	*Egypt*
Escocia	*Scotland*
Estados Unidos	*United States*
Francia	*France*
Gales	*Wales*
Grecia	*Greece*
Inglaterra	*England*
Irlanda	*Ireland*
Italia	*Italy*
Turquía	*Turkey*
estar de vacaciones	*to be on holiday*
ir de vacaciones	*to go on holiday*
ir de visita	*to pay a visit*
una escapada a la ciudad	*city break*
unas vacaciones en la playa	*beach holiday*
un viaje cultural	*cultural trip*

1

https://quizlet.com/gb/702401703/claro-21-alla-voy-flash-cards/

35

el año pasado	*last year*
el mes pasado	*last month*
en mis últimas vacaciones	*on my last holiday*
el verano pasado	*last summer*
al aire libre	*in the open air*
la barbacoa	*barbecue*
el camping	*campsite*
la isla	*island*
bailar en una discoteca	*to dance in a night club*
comprar recuerdos	*to buy souvenirs*
hacer ciclismo	*to go cycling*
nadar en la piscina	*to swim in the pool*
probar la gastronomía local	*to try the local cuisine*
sacar selfis	*to take selfies*
salir con los amigos	*to go out with friends*
ver un partido	*to watch a match*

1

https://quizlet.com/gb/809679727/claro-2-24-te-cuento-que-paso-flash-cards/

36

el año que viene	*next year*
el miércoles que viene	*next Wednesday*
la semana que viene	*next week*
el verano que viene	*next summer*
voy a…	*I am going to…*
alojarme en un hotel	*stay in a hotel*
dar de comer a las llamas	*feed the llamas*
dormir mucho	*sleep a lot*
no hacer nada	*not do anything*
hacer un crucero	*go on a cruise*
pescar en el río	*fish in the river*
planear mis vacaciones en Internet	*plan my holiday on the Internet*
trabajar de voluntario/a	*work as a volunteer*
ganar la lotería	*to win the lottery*
ver muchos animales salvajes	*to see many wild animals*
viajar alrededor del mundo	*to travel around the world*
volar en un avión privado	*to fly in a private plane*
el comedor social	*soup kitchen*

1

https://quizlet.com/558523345/claro-26-el-verano-que-viene-vamos-a-flipar-flash-cards/

37

What Makes a Good Song?

Exploring Popular Songs and Musical Arrangements

A. Popular Song Structure

SONG STRUCTURE – How a song is made up of or divided into different sections (see below) and the order in which these sections occur. To work out the structure of a song, it's helpful to analyse the **LYRICS and** listen to a recording for the song (for instrumental sections).

INTRO – often shortened to 'intro', the first section of a song which sets the mood of the song and is sometimes, but not always, an instrumental section using the song's chord pattern.

VERSES – songs normally have several verses. Verses introduce the song's theme and have the same melody but different lyrics for each verse which helps develop the song's narrative and story. Songs made up entirely of verses are called **STROPHIC**.

LINK – a optional short section often used to join different parts of a song together, often instrumental, and sometimes joins verses together or appears at other points within a song.

PRE-CHORUS – an optional section of music that occurs before the **CHORUS** which helps the music move forward and "prepare" for what is to come.

CHORUS – occurs several times within a song and contains the most memorable **HOOK/RIFF**. The chorus relays the message of the song and is repeated with the same melody and lyrics each time it is heard. In popular songs, the chorus is often repeated several times towards the end of the song.

MIDDLE 8/BRIDGE – a section (often 8 bars in length) that provides contrasting musical material often featuring an instrumental or vocal solo using new musical material allowing the performer to display their technical skill on their instrument or voice.

CODA/OUTRO – The final section of a popular song which brings it to an end (Coda is Italian for "tail"!)

B. Key Words

LYRICS – The words of a song, usually consisting of **VERSES** and a **CHORUS**.

HOOK – A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece. Hooks can be either **MELODIC, RHYTHMIC** or **VERBAL/LYRICAL**.

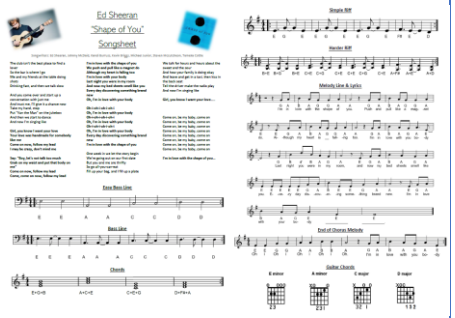
RIFF – A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. Riffs can be rhythmic, melodic or lyrical, short and repeated.

MELODY – The main tune of the song often sung by the **LEAD SINGER**.

COUNTER-MELODY – An 'extra' melody often performed 'on top of' the main melody that 'fits' with it a **DESCANT** or **INSTRUMENTAL SOLO**.

TEXTURE – The layers that make up a song *e.g., Melody, Counter-Melody, Hooks/Riffs, Chords, Accompaniment, Bass Line*.

C. Lead Sheet Notation and Arrangements



A **LEAD SHEET** is a form of musical **NOTATION** that contains only the essential elements of a popular song such as the **MELODY, LYRICS, RIFFS, CHORDS** (often as guitar chord symbols) and **BASS LINE**; it is not as developed as a ***FULL SCORE ARRANGEMENT*** and is open to interpretation by performers who need to use and adapt the given elements to create their own musical **ARRANGEMENT:** their "version" of an existing song.

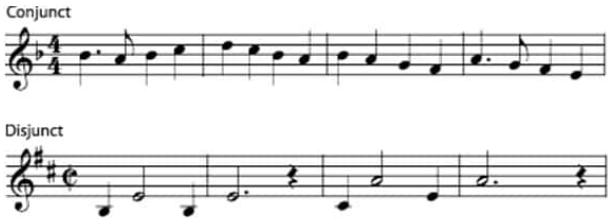
COVER (VERSION) – A new performance, remake or recording by someone other than the original artist or composer of the song.

D. Conjunct and Disjunct Melodic Motion

CONJUNCT MELODIC MOTION – Melodies which move mainly by step or use notes which are next to or close to one another.

DISJUNCT MELODIC MOTION – Melodies which move mainly by leap or use notes which are not next to or close to one another.

MELODIC RANGE – The distance between the lowest and highest pitched notes in a melody.



E. Song Timbre and Sonority (Instruments that are used to Accompany Songs)

Pop Bands often feature a **DRUM KIT** and **PERCUSSION** to provide the rhythm along with **ELECTRIC GUITARS** (**LEAD GUITAR, RHYTHM GUITAR** and **BASS GUITAR)** and **KEYBOARDS**. Sometimes **ACOUSTIC INSTRUMENTS** are used such as the **PIANO** or **ACOUSTIC GUITAR**. **ORCHESTRAL INSTRUMENTS** are often found in pop songs such as the **STRINGS**, **SAXOPHONE, TROMBONE** and **TRUMPET.**

Singers are essential to a pop song - **LEAD SINGER** – Often the "frontline" member of the band (most famous) who sings most of the melody line to the song. **BACKING SINGERS** support the lead singer providing **HARMONY** or a **COUNTER-MELODY** (a melody that is often higher in pitch and different, but still 'fits with' the main melody) and do not sing all the time but just at certain points within a pop song e.g. in the chorus.

38

hooks and riffs

Exploring Repeated Musical Patterns

A. Key Words

HOOK – A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece. HOOKS can either be a:

MELODIC HOOK – a HOOK based on the instruments and the singers

RHYTHMIC HOOK – a HOOK based on the patterns in the drums and bass parts or a

VERBAL/LYRICAL HOOK – a HOOK based on the rhyming and/or repeated words of the chorus.

RIFF – A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. RIFFS can be rhythmic, melodic or lyrical, short and repeated.

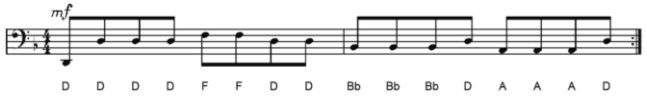
OSTINATO – A repeated musical pattern. The same meaning as the word RIFF but used when describing repeated musical patterns in "classical" and some "World" music.

BASS LINE – The lowest pitched part of the music often played on bass instruments such as the bass guitar or double bass. RIFFS are often used in BASS LINES.

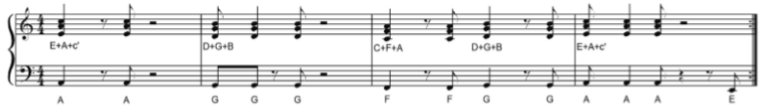
MELODY – The main "tune" of a song or piece of music, played higher in pitch that the BASS LINE and it may also contain RIFFS or HOOKS. In "Classical Music", the melody line is often performed "with" an OSTINATO pattern below.

B. Famous Hooks, Riffs and Ostinatos

Bass Line Riff from "Sweet Dreams" – *The Eurythmics*

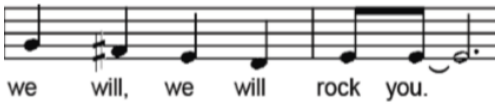


Riff from "Word Up" – *Cameo*

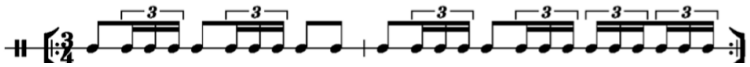


Rhythmic Riff from "We Will Rock You" – *Queen*

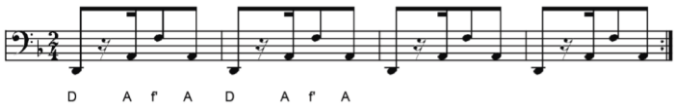
Vocal and Melodic Hook from "We Will Rock You" – *Queen*



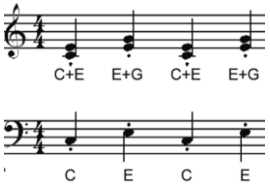
Rhythmic Ostinato from "Bolero" - *Ravel*



Bass Line Ostinato from "Habanera" from 'Carmen' - *Bizet*



Ostinato from 2nd Movement of Symphony No.101 (The Clock) - *Haydn*



C. Music Theory

REPEAT SYMBOL – A musical symbol used in staff notation consisting of two vertical dots followed by double bar lines showing the performer should go back to either the start of the piece or to the corresponding sign facing the other way and repeat that section of music.

TREBLE CLEF – A musical symbol showing that notes are to be performed at a higher pitch. Also called the G clef since it indicates that the second line up is the note G.

BASS CLEF – A musical symbol showing that notes are to be performed at a lower pitch. The BASS LINE part is often written using the BASS CLEF. Also called the F clef since it indicates that the fourth line up is the note F.

Year 9 RE: Component 3a: Judaism Beliefs

Denominations of Judaism		
1	Reform	More liberal Jews who reinterpret tradition for modern society
2	Orthodox	More conservative Jews who follow tradition more strictly
3	Other	Hassidic/ Secular/ Messianic/ Ashkenazi/ Sephardic

Nature of God		
4	One	Shown in the Shema, God cannot be separated or divided
5	Creator	Everything owes its existence to God, shown in Genesis
6	Lawgiver	God gives direction on how to live and stay close to him, shown in the Mitzvot
7	Judge	God is merciful and fair in his judgements, which decide the afterlife
8	Shekinah	The manifested glory of God, His dwelling place on earth

Messiah		
9	Reform	The Messianic Age will be brought about by collective action, it is not a person, there is no mention in the Torah
10	Orthodox	The Messiah will be a leader, ever generation has the potential for the Messiah to be born, will judge Jews
11	Maimonides	The belief in the Messiah is one of the 13 Principles of Judaism
12	Prophecy	Descendent of David, rebuild the Temple, Teach the Torah, bring Jews back to Israel, Messianic Age of universal peace
13	Isaiah	"the wolf will live with the lamb"
14	Micah	"nation shall not take up sword against nation"

Covenant		
15	Abraham- Land	Abraham was called out of his homeland to the land of Canaan
16	Abraham - descendants	Abraham was promised descendants through his son Isaac, and that they would be a great nation
17	Abraham - blessing	God promises to bless Abraham and the families on Earth through him. Circumcision of boys is a sign of the covenant
18	Moses- Calling	Moses is called by God through the burning shrub and given the covenant to lead the Israelites from Egypt to the Promised Land
19	Moses- Plagues	In the 10th Plague the Israelites are saved from the Angel of Death and allowed to return to the Promised Land
20	Commandments	Moses is given the 10 Commandments on Mount Sinai
21	Moses- Desert	Moses and the Israelites travel through the desert as a Jewish society for 40 years, after God does not let them into Canaan for their disobedience.

Mitzvot		
22	613	Number of Commands/ instructions in the Torah
23	Modern Use	Some Jews choose which to follow according to their relevance, others such as the Temple worship do not apply
24	Mitzvah Day	Established in 2008 to celebrate the mitzvoth
25	Healing the world	Tikkum olam. The world is made perfect, as God intended through the mitzot.
26	Love of neighbour	Gemilut hasadim. Without expecting anything in return, Jews are expected to look after each other, especially the vulnerable
27	Justice	Tzedakah. Social justice and promoting fairness and equality
28	Free will	God judges on our actions, which we have the ability to decide

Importance of Life		
29	Sanctity of Life	God gives life, as shown in Genesis, and therefore it is sacred and needs protecting, as only God can take life.
30	Pikuach Nefesh	The principle that any of the Mitzvot can be broken in order to save a life
31	Examples	Kosher Law can be ignored to save the starving, the Sabbath Law can be broken to drive to the hospital
32	Exceptions	Idolatry, adultery and incest cannot be broken to save a life

Ten Commandments		
33	Importance	They can be kept by every Jew to show love towards neighbour and towards God, and they give the basis of all Jewish beliefs and practices

Afterlife		
34	Significance	Not as important as living a good life
35	Olam Ha Ba	The term for "the world to come"
36	Interpretations	Some Jews think the afterlife is spiritual, others that it is a physical place
37	Talmud	States we should prepare for the afterlife in this life
38	Resurrection	Interpretations differ on a spiritual or physical afterlife, as well as Reform who do not accept it at all
39	Nahmanides	The afterlife comes after the resurrection
40	Maimonides	The resurrected will die a second time, then go to the afterlife
41	Messiah	The resurrection may be during or after the Messianic Age.

40

Year 9 RE: Component 3b: Judaism Practices

Prayer		
1	Amidah	'HaTefillah' (the prayer)18 Blessings reflecting the types of prayer
2	Shema	'listen' One of the most important Jewish prayers of Gods nature
3	Modeh Ani	'I offer thanks' Often the first prayer of the day
4	Mezuzah	Case containing scroll of Shema, placed on right of door
5	Siddur	Book of prayers for Shabbat and other festivals. Considered as holy

Shabbat		
6	Shabbat	Holy day of rest, worship in home and synagogue. One of the Miztvot.
7	Meal	Includes braided loaves (challah) and Kiddush prayer over glass of wine
8	Synagogue	The family go to the synagogue on Saturday. The father goes on Friday evening before the family meal at the home
9	Havdalah	The candle lit to mark the end of Shabbath, with wine and sweet spice.

Items of Worship		
10	Kippah	Skull cap; a sign of respect to God, usually worn through prayer and study
11	Tallit	Garment that covers the shoulders, with 613 fringes (tzizit)
12	Tefillin	Two small leather boxes worn on head and arm, contain the Shema

Synagogue		
13	Purpose	Beit tefilah (house of study) Beit midrash (house of prayer)
14	Yom Tovim	Arranging food, cards etc for festival celebration, especially for the lonely
15	Chevra Kadisha	The burial Society, prepares the ceremony and the body for burial
16	Aron Hakodesh	The Ark, that holds the Torah Scrolls
17	Ner Tamid	The eternal lamp, symbolises the Menorah and God's presence
18	Torah Scrolls	Sacred scripture, hand written on animal skin, read from the Bimah

Brit Milah		
19	Torah reading	Naming ceremonies for boys and girls occur at the next Torah reading at the synagogue
20	Abrahamic link	Circumcision is a sign of the relationship with God, the third covenant
21	Elijah	The boy is placed on a cushion on an empty chair, known as Elijah's chair as his presence visits every Brit Milah
22	Identity	The Jewish name is given, and the boy has entered a covenant with God

Authority		
23	Torah	The first 5 books of scripture, the story of Creation, Abraham, Moses
24	Tenakh	The Torah, plus Neviim (prophets) and Ketuvim (Psalms)
25	Talmud	Mishnah (oral Torah and Halakah) and Gemara (commentary on Mishnah)

Bar/Bat Mitzvah		
26	Responsibility	Deeper relationship with God, duty to follow Mitzvot. Age 12/ 13
27	Torah knowledge	Both boys and girls have to learn Hebrew to read a Torah blessing
28	Bat Chayil	A special ceremony in Orthodox Judaism for the girls' Bat Mitzvah

Marriage		
29	Kiddushin	To be holy or sanctified- the union between the couple is God given
30	Ketubah	Legal document where the groom promises to support his wife
31	Chuppah	The canopy that represents the home, blessings are said for commitment
32	Glass	The breaking of the glass to show the fragility of marriage
33	Nisuin	7 blessings that finalise the marriage and praise God

Mourning		
34	Burial	Rather than cremated. Simple burial with Kiddush said at graveside
35	Shiva	7 days of mourning after burial, no mirrors, social events etc.
36	Tombstone	Stones as a sign of respect to remember Abraham's burial of Sarah
37	Yahrzeit	Ceremony on the anniversary of death, candles are burned for 24 hours

Kosher		
38	Kosher	Part of Mitzvot. Shochet slaughters animals in specific way.
39	Treifah	Forbidden food or objects, such as shellfish, fish without scales
40	Reform	The relevance and availability of Kosher means some Jews don't follow it

Rosh Hashanah		
41	Day of Judgement	Jews reflect on their actions, perform Tashlikh (casting) of sins
42	Shofar	Sounded in the morning to symbolise souls reuniting with God
43	Symbolic Food	The Challah is circular, with apple dipped in honey.

Yom Kippur		
44	Atonement	The 10 "Days of Returning" and repentance, with fasting on Yom Kippur
45	Actions	Charity, spiritual cleansing in mikveh, confession, Yizkor (memorial service

Sukkot		
46	Mosaic link	One of Mitzvot, remembering the journey through the desert
47	Lulav and Etrog	The palm and citrus, representing knowledge of Torah and Mitzvah
48	shelter	Sign of unity, where families eat or sleep in it

Pesach		
49	Exodus	Celebrates the Passover (10th Plague) and freedom from slavery
50	Ceder Meal	Ritual meal of symbolic food of slavery and freedom (lamb/ egg etc

AQA GCSE Chemistry (Combined Science) Unit 9: Chemistry of the Atmosphere

The Early Atmosphere

Approximately **4.6 billion years ago** the Earth was formed. Scientists have lots of ideas and **theories** about how the atmosphere was produced and the gases within it, but due to the lack of evidence, they cannot be sure.

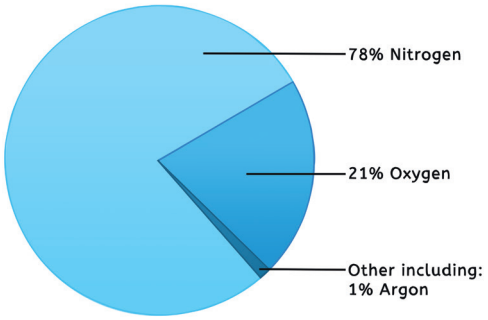
One theory suggested that **intense volcanic activity** released gases that made **Earth's early atmosphere** very similar to that of Mars and Venus. These planet's atmospheres mainly consist of carbon dioxide with little oxygen.

Nitrogen gas would have also been released from volcanoes and would have built up in the atmosphere.

Water vapour in Earth's early atmosphere would have **condensed** to create the **seas and oceans**. Carbon dioxide would have dissolved into the water, decreasing the level in the atmosphere.

Percentage of Gases in the Atmosphere

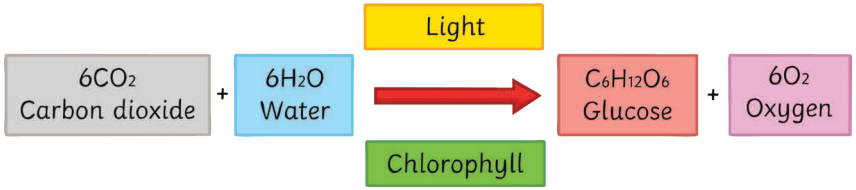
The pie chart below shows the abundance of each gas in our atmosphere.



How Did the Levels of Oxygen Increase?

2.7 billion years ago, algae first produced oxygen. Gradually over time, the levels of oxygen in our atmosphere increased as plants evolved. This was followed by animals as the levels of oxygen increased to a level that would sustain more complex life.

Oxygen is produced by plants in the process of **photosynthesis**.



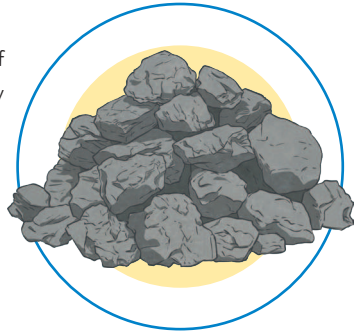
How Did the Levels of Carbon Dioxide Decrease?

Carbon dioxide **dissolves** in water. As water vapour condensed and the oceans and seas formed, the carbon dioxide gas dissolved producing **carbonate compounds**. This process reduced the amount of carbon dioxide in the atmosphere. Carbonate compounds were then **precipitated**: limestone is an example of a sedimentary rock; it has the chemical name calcium carbonate.

Plants in the oceans absorbed **carbon dioxide** gas for **photosynthesis**. The organisms from the food chains that the plants supported were turned into fossil fuels. **Fossil fuels** are **non-renewable** and consist of **coal, crude oil, and gas**, all of which contain carbon.

Crude oil was formed millions of years ago. When aquatic plants and animals died, they fell to the bottom of the sea and got trapped under layers of sand and mud. Over time, the organisms got buried deeper below the surface. The **heat and pressure** rose, turning the remains of the organisms into crude oil or natural gas. Oxidation did not occur due to the lack of oxygen.

Coal is a fossil fuel formed from **giant plants** that lived hundreds of millions of years ago in swamp-like forests. When these plants died, they sank to the bottom of the swamp where dirt and water began to pile on top of them. Over time, pressure and heat increased and the plant remains underwent chemical and physical changes. The oxygen was pushed out and all that remained was coal.



The Human Impact and the Greenhouse Effect

Scientists believe that human activities have resulted in the **increased** amount of greenhouse gases in the atmosphere. Activities such as **farming cattle** and **farming rice** release huge amounts of **methane** into the atmosphere.

Burning **fossil fuels** in cars and power stations releases large amounts of **carbon dioxide**. With large areas of the rainforest being cut down through **deforestation**, the excess carbon dioxide is not being absorbed by photosynthesis.

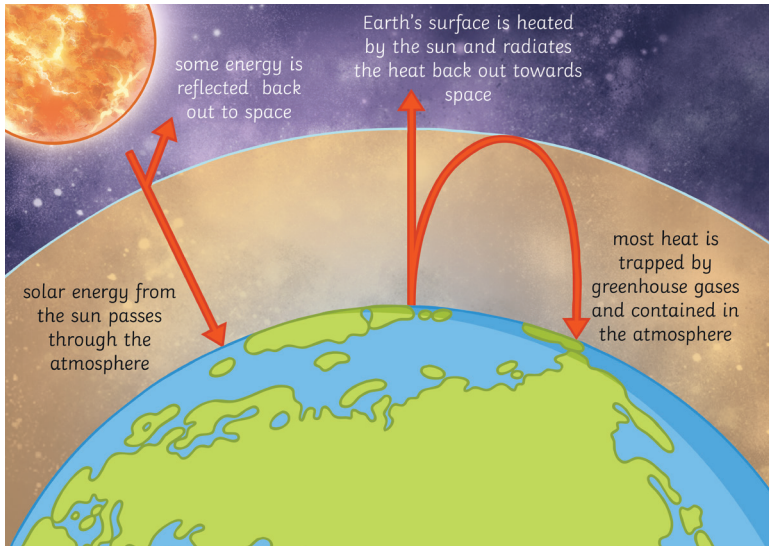
However, not everyone believes that humans are causing the rise in greenhouse gases. Some believe that the rise in global temperatures is associated with cycles of climate change and natural factors.

Climate science is often complicated as there are **difficulties** associated with **predicting future global temperatures**. The media present information that can be biased, inaccurate or lacks substantial evidence.

After reading an article on global warming, consider the trustworthiness of the source by considering these factors:

- Is the research done by an expert in that field and do they have the right skills and qualifications to report on the issue?
- Which organisation is reporting the evidence? If it is a newspaper, some stories are sensationalised in order to sell papers.
- Was the research funded by a legitimate organisation and was it conducted in a non-biased way? Think about the methods that were used to obtain the data and the impact the collection and analysis of this data had on the overall result.

The Greenhouse Effect



A greenhouse is a house made of glass and is commonly used by gardeners to help grow plants and keep them warm. As the sun shines through the greenhouse, the air is heated up and becomes trapped by the glass and is prevented from escaping. During daylight, a greenhouse stays quite warm and this lasts into the night.

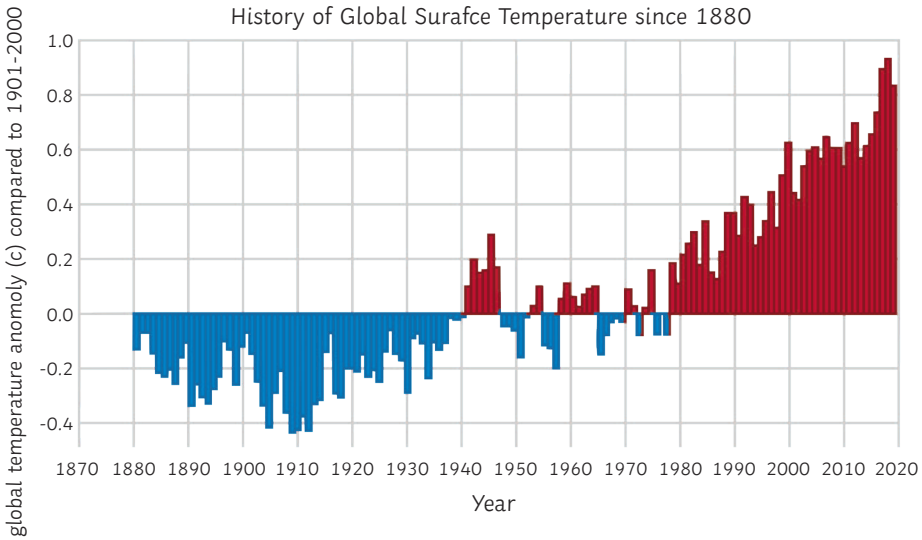
The earth and its atmosphere are very similar to that of a greenhouse. The greenhouse gases in the atmosphere trap the heat and keep the earth warm. The main greenhouse gases are **carbon dioxide**, **water vapour and methane**. During the daylight, the sun warms up the earth's surface. During the night, as the earth begins to cool and release the heat back into the atmosphere, some of the heat is trapped by the greenhouse gases in the atmosphere.

If the **greenhouse effect** becomes too **strong**, the earth will get too warm and melt the Arctic ice. As we burn more fossil fuels, the levels of **carbon dioxide** and the other greenhouse gases **increase** in our atmosphere which makes the greenhouse effect stronger.

What is the Difference Between Climate Change and Global Warming?

Since the Earth was formed over 4.6 billion years ago, its climate has constantly been changing with several ice ages followed by warmer temperatures. Changes in the Sun's energy reaching the Earth and volcanic eruptions were responsible for the changes until about 200 years ago.

Global warming is different to climate change and is used to explain how the earth's climate has warmed up over the past 200 years. Scientists believe that the warming of the climate is due to the activities of humans.

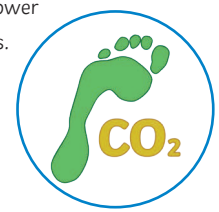


Carbon Footprint

The carbon footprint is the total amount of **carbon dioxide** and other greenhouse gases emitted over the full life cycle of a product, service or event.

An individual's carbon footprint is a calculation of all the activities that that person has taken part in throughout the year.

These activities might involve flying abroad or **travelling** by bus or rail. Each of which might be powered by petrol or diesel. **Heating a home** in winter by using a gas-powered boiler and using electricity to power lights and electronic devices. **Food** also has a **carbon footprint**, for example, beef and rice produces huge amounts of methane when farmed.



Nitrogen

Nitrogen and oxygen react together to make oxides of nitrogen. This occurs inside a **car engine** where there is a high temperature and pressure. Many compounds can be formed when nitrogen reacts with oxygen. The two that are formed inside a car engine are NO and NO_2.

Nitrogen compounds are grouped together with the general formula NO_x. Nitrogen compounds, along with sulfur dioxide, are also responsible for acid rain.

Compounds of nitrogen oxides react in the atmosphere with ultraviolet light from the sun to produce **photochemical smog**. The smog is most noticeable during the morning and afternoon and occurs mainly in densely populated cities.

The presence of smog can have a **major impact on human health**, particularly to those who suffer with **asthma**.

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Combustion

Complete combustion occurs when there is **enough oxygen** for a fuel to burn. A hydrocarbon will react with oxygen to produce carbon dioxide and water.

propane + oxygen ⟶ carbon dioxide + water

$C_3H_8 + 5O_2 \longrightarrow 3CO_2 + 4H_2O$

Incomplete combustion occurs when there **isn't enough oxygen** for a fuel to burn. The products in this reaction are water and poisonous **carbon monoxide**. Carbon particles (soot) may also be seen.

ethane + oxygen ⟶ carbon monoxide + water

$2C_2H_6 + 5O_2 \longrightarrow 4CO + 6H_2O$

Carbon monoxide is a poisonous gas. It is often called the **silent killer** due to it being colourless and odourless. Carbon monoxide works by binding to the **haemoglobin** in your red blood cells. This prevents them from carrying oxygen to the cells around your body. Carbon monoxide detectors are used to detect levels of the gas in the surrounding air and are often placed near gas-powered boilers to detect gas leaks.

Particulate carbon irritates the lining of the lungs making asthma worse and could cause cancer. **Global dimming** is caused by particulates of carbon blocking out the Sun's rays and may reduce rainfall.

Sulfur Dioxide

Sulfur dioxide is an **atmospheric pollutant**. It is a gas that is produced from the burning of **fossil fuels**. Sulfur dioxide is able to dissolve in rainwater and produces **acid rain**. Acid rain causes damage to forests, kills plants and animals that live in aquatic environments, and damages buildings and statues as the acid rain erodes the stone that they are made from.

sulfur + oxygen ⟶ sulfur dioxide

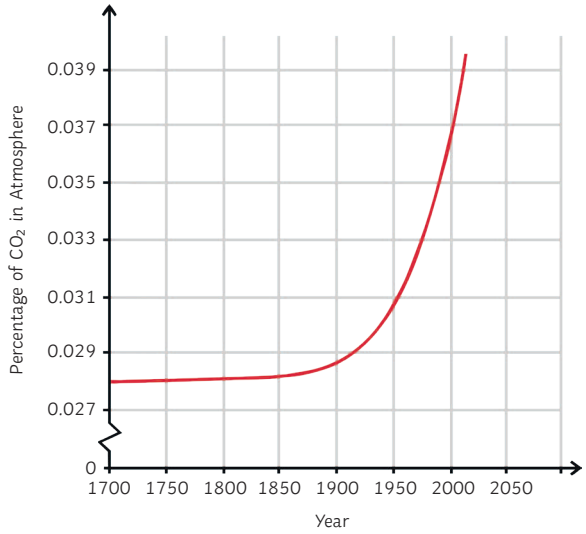
$S + O_2 \longrightarrow SO_2$

Sulfur dioxide can be further oxidised to form sulfur trioxide.

What is the Link Between Carbon Dioxide and Global Warming?

There is a strong correlation between the percentage concentration of carbon dioxide in the atmosphere and increased global temperatures.

The impact of this is that the polar ice caps are melting, sea levels are rising and habitats and rainfall patterns are changing. The impact of which is already being felt around the globe. The consequences of human activity will affect us all.



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AQA GCSE Chemistry (Combined Science) Unit 10: Using Resources

Sustaining Human Life on Earth

The human **population** is **increasing** rapidly and our use of earth's finite resources has increased. If humans continue to use these resources at the rate at which we are, then we will reach a point where the human population cannot be sustained on earth.

Humans use the **earth's natural resources** for warmth, shelter, food, clothing and transport. Scientists are making **technological advances** in **agricultural** and **industrial processes** to provide food and other products that meet the growing needs of the human population but it is of major importance that this is done in a sustainable way so that our finite resources are not used up.

Earth's Resources

Finite resources are those of which there is a **limited supply**, for example coal, oil and gas. These resources can be used to provide energy but, one day, their supply will run out.

Crude oil is processed through **fractional distillation** and **cracking** to produce many useful materials such as petrol, diesel and kerosene.

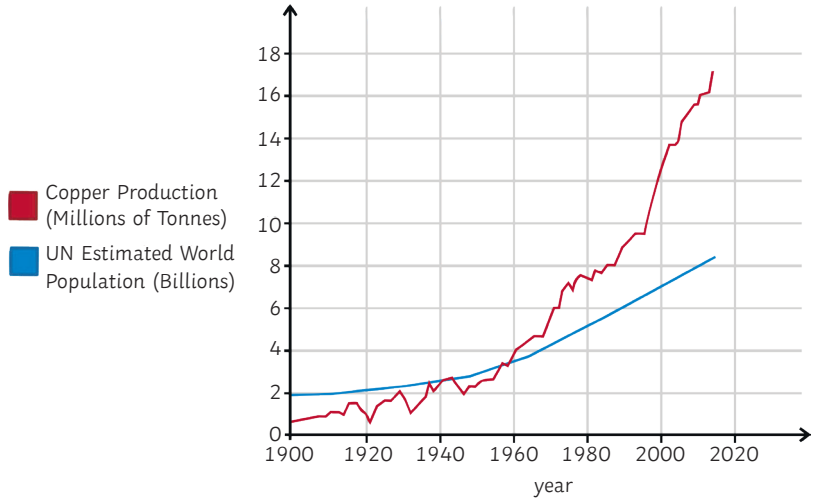
Renewable resources will not run out in the near future because the reserves of these resources are high. Examples of renewable resources include solar energy, wind power, hydropower and geothermal energy.

Haber Process and Copper

Scientists often discover new ways to produce a product; **synthetic methods** of production replace **natural methods**. For example, fertilisers were obtained from manure (a natural resource).

The **Haber process** allowed the synthetic production of **fertilisers** and this enabled **intensive farming** methods to spread across the globe. In turn, this supported the growing human population.

Copper is another resource that has been exploited over time. As the human population has increased since 1900, the demand for copper has also increased. Copper is a finite resource which means that there is a limited supply.



Water

Potable water is water that is **safe to drink**. Potable water is **not pure; dissolved impurities** still **remain** in the water. Pure water is odourless, tasteless and colourless compared to rainfall or water from streams and wells as these **harbour chemicals** such as acid.

Pure – the **definition** of a pure substance is one that contains only a single type of material that has not been contaminated by another substance.

Potable water must contain **low levels** of microbes and salts for it to be deemed safe to consume. This is because **high levels** of microbes and salts can be harmful to human health.

The methods of making water safe vary depending on where you live. Starting with sea water is harder than starting with fresh water. This is because the **energy cost** of removing large amounts of sodium chloride from seawater is greater.

In the UK, our populations' water needs are met through **rainfall**. During the **summer, water levels** in reservoirs **decrease** and local areas are encouraged to reduce their water usage by swapping baths for showers and they are asked to avoid using hosepipes.

In the UK, **insoluble particles** are **removed** from naturally occurring fresh water by passing it through **filter beds**. **Microbes** are **killed** by **sterilising the water**. Several different sterilising agents are used for potable water. These are chlorine, ozone or ultraviolet light. The right amount of chlorine and ozone gas (O_3) must be used as both are harmful to human health.

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Desalination of Sea Water

If fresh water supplies are limited, sea water can undergo a process called **desalination**. This process requires **large amounts of energy**, but can be done by distillation or the use of membranes such as **reverse osmosis**.

Distillation involves **heating** the sea water until it reaches **boiling point**. Once the water is boiling, it will begin to **evaporate**. The steam then rises up where it cools and condenses in a condensing tube. The salt is left behind. The **downside** to this process is the **energy cost** of boiling the water and cooling down the steam sufficiently in the condensing tube. Not all of the water evaporates which leaves behind a **salty wastewater** that can be **difficult to sustainably dispose of** without harming aquatic organisms.

Reverse Osmosis of Salt Water

Osmosis, as you will have learnt in biology, is the **movement of particles** from an area of **high** concentration **to** an area of **low** concentration through a **semi-permeable membrane**.

Reverse osmosis involves **forcing water** through a **membrane** at **high pressure**. Each membrane has tiny holes within it that only allow water molecules to pass through. Ions and other molecules are prevented from passing through the membrane as they are too large to fit through the holes.

The **disadvantage** of this method is that it produces **large amounts of wastewater** and requires the use of **expensive membranes**. Due to a large amount of wastewater produced, the efficiency of this method is very small.

Water Treatment

Before the **wastewater** from industry, agriculture and peoples' homes can be released back into the environment, it must be **treated**.

Pollutants such as human waste contain **high levels of harmful bacteria** and **nitrogen compounds** which can be a **danger to aquatic organisms**.

Industrial and agricultural waste may contain **high levels** of **toxic metal compounds** and **fertilisers and pesticides** which may also damage the ecosystem.

Cleaning sewage requires several steps:

Step 1 – The water must be **screened**. This is where material such as branches, twigs and grit is removed.

Step 2 – The water undergoes **sedimentation**; wastewater is placed in a settlement tank. The heavier solids sink to the bottom and form a sludge whilst the lighter effluent floats on the surface above the sludge.

Step 3 - The effluent is then transferred to another tank where the organic matter undergoes **aerobic digestion**. Although not pure, this water can be safely released back into the environment. The sludge is placed in another tank where the organic matter undergoes **anaerobic digestion**. It is broken down to produce fertiliser and methane gas which can be used as an energy resource (fuel).

Required Practical 8 – Analysis and Purification of Water Samples from Different Sources

Analysing the pH of Water Samples

Test the pH of each water sample using a pH meter or universal indicator. If using universal indicator, use a pH colour chart so that you are able to identify the pH of the sample against the colour produced by the indicator.

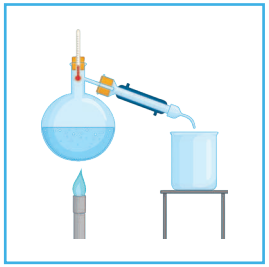
Analysing the Mass of Dissolved Solids

To measure the mass of dissolved solids in a water sample, measure out 50cm^3 of the sample using a measuring cylinder. Take the mass of an evaporating basin before heating and record the mass in a table. Place the measured amount of water into an evaporating basin and gently heat over a Bunsen burner until all the liquid has evaporated. Once the evaporating basin has cooled, place it on a top pan balance and record its mass. Calculate the mass of the solid left behind.

Distillation of the Water Sample

To distil a water sample, set up your equipment as per the diagram.

Heat the water sample gently using a Bunsen burner. After a short period of time, distilled water should be produced.



Life-Cycle Assessment (LCA)

Life-Cycle Assessments follow the four main stages of the life cycle of a product.

Stage 1 – Extracting the raw materials needed to make the products and then processing them.

At this stage, the energy and environmental costs need to be considered. For example, if the raw material being used is a finite or renewable resource, the energy to extract and transport the raw material should be considered. Environmental factors also play a large part in stage 1 as the extraction of the raw material can leave scars on the landscape and waste products may be produced that could damage local ecosystems.

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Life-Cycle Assessment (LCA) (continued)

Stage 2 – Manufacturing and packaging of the product.

The main consideration is how much energy and resources are needed to manufacture the product. Energy may be used in the form of fuel, electricity or chemicals used in the production of the product. In the manufacturing process, there may be pollution and waste products that need to be considered. Transportation of the goods from the factory to the user will have an environmental impact.

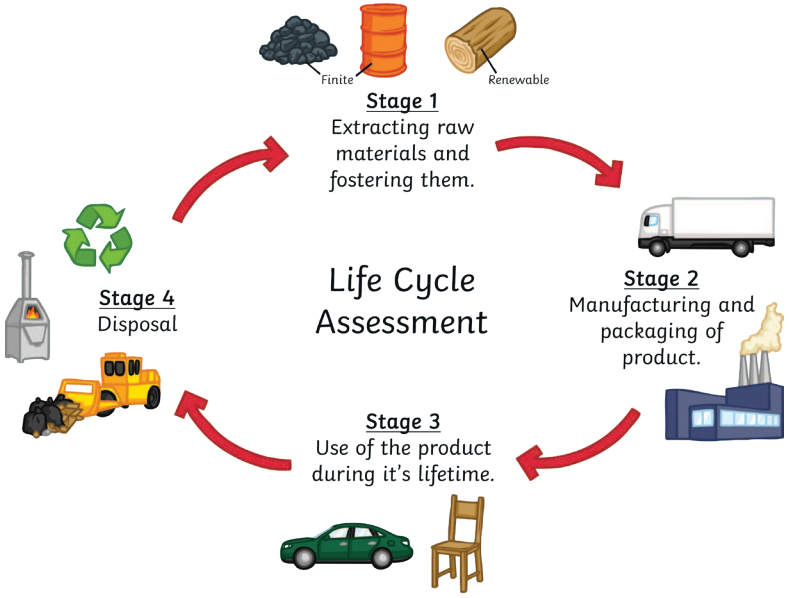
Stage 3 – Use of the product during its lifetime.

The environmental impact of a product during its life depends on the type of product. For example, a car will have a significant impact i.e. it needs to be filled with petrol or diesel, a finite resource, to get to where you are going. A car's engine releases harmful emissions into the atmosphere. On the other hand, a wooden chair may only need minor repairs and is made from a renewable resource.

Stage 4 – Disposal at the end of a product's life.

There are different methods of disposal:

1. Landfill – the product is put in a hole in the ground – high environmental impact.
2. Incineration (organic matter) – burning of the product – low environmental impact.
3. Recycling – for example, batteries contain metal compounds that are not good for the environment. By recycling, it means that no new compounds have to be taken out of the ground.



Comparative LCAs

Comparative LCAs are used to evaluate products and to find which one will have a lower environmental impact.

Stage of Life Cycle	Plastic Bag	Paper Bag
Stage 1 – raw material	Uses a finite resource (crude oil). The processes of fractional distillation, cracking and polymerisation all require energy to make crude oil useful.	Made from trees/recycled paper. Making paper from trees requires more energy than recycled paper because trees have to be chopped down. Still uses less energy than making plastics from crude oil.
Stage 2 – manufacture	Cheap to make.	More expensive to make.
Stage 3 – use	Plastic bags have a low environmental impact as they can be used a number of times. In comparison to paper bags, they are much stronger.	Paper bags can only be reused a limited number of times and so have a short lifetime.
Stage 4 – disposal	The downside to plastic bags is that they do not biodegrade easily in landfill. Recycling options are available. If they are not disposed of correctly, plastic bags can have a detrimental impact on the environment and animal habitats.	Paper bags biodegrade easily in landfill sites.

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Disadvantages of Comparative LCAs

The disadvantage of **comparative LCAs** is that some parts of it require certain judgements to be made.

Different people have different opinions and this is dependent on who completes the LCA and whether a certain level of bias is added. For example, if the LCA is completed by a company that is manufacturing a specific product, they may only discuss **some** of the environmental impact of their product in the LCA. Accurate numerical values, for example, show a company how much energy has been used in the **manufacturing process** or how much **carbon dioxide** was produced when the goods were transported.

Recycling

Many materials are made from **natural resources** that have **limited supplies**. Reusing items such as glass bottles that only need washing and sterilising saves energy and reduces the environmental impact. Not all products can be reused, some need to be recycled before reuse.

There are both advantages and disadvantages to recycling materials.

Advantages

- Fewer resources such as **mines** and **quarries** are needed to remove raw, finite materials from the ground. For example, copper.
- Crude oil, the raw material used in the production of plastics, does not need to be extracted. This, in turn, **avoids** high energy cost processes such as fractional distillation and cracking. If more items are recycled, less would end up in landfill sites.
- The amount of greenhouse gases would reduce as the energy cost of recycling is a lot **less** than making a new product.

Disadvantages

- Recycling items require collection and transport of the goods to the organisation. This involves using staff, vehicles and the use of fuel.
- Some materials, such as **metals**, can be **difficult to sort**; the amount of sorting is dependent on the purity of the materials or metals and the level of purity required for the final product. For example, copper used in electrical appliances must have a high purity. To achieve this, the copper needs to be processed and then melted down again to make copper wiring.
- Steel that is used in the construction industry does not require such high purity. Often scrap iron is added to the furnace when steel is made. This reduces the need for as much iron ore and reduces the cost of making steel.

Biological Extraction Methods (Higher Tier Only)

Biological methods of extraction are needed as the resources of **metal ores** on earth are in **short supply**. Large scale **copper mining** leaves **scars on the landscape** and produces significant amounts of waste rock that must be disposed of. Biological methods have a lower impact on the environment and make use of waste containing small amounts of copper. The disadvantages of **biological extraction methods** are that they are **slow**, but they do reduce the need to obtain new ore through mining and conserve limited supplies of high-grade ore.

Phytomining

Phytomining involves the use of **plants**. Plants absorb the metal compounds found in the soil. The plants cannot get rid of the copper ions and it builds up in the leaves. The plants are then **harvested, dried** and then placed in a furnace. The ash that is produced from the burning process contains soluble metal compounds that can be extracted. The ash is dissolved in an acid such as hydrochloric or sulfuric and the copper is then extracted by electrolysis or through a **displacement reaction** with iron.

Bioleaching

Bioleaching uses **bacteria** to produce an acidic solution called **leachate** which contains **copper ions**. The disadvantage of bioleaching is that it produces **toxic substances** that are **harmful to the environment**. To process the copper, the copper undergoes a displacement reaction with iron. Iron is cheaper and a **more cost-effective** way of producing copper from the leachate.

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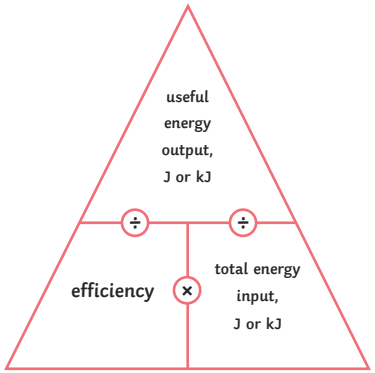
Efficiency

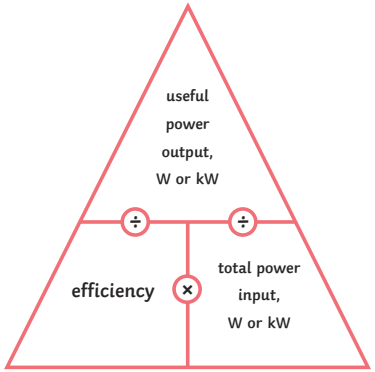
When energy is transferred, some energy is wasted. The less energy that is wasted during the transfer, the more efficient the transfer.

There are two equations to calculate efficiency:

$$\text{efficiency} = \frac{\text{useful output energy transfer}}{\text{total input energy transfer}}$$



$$\text{efficiency} = \frac{\text{useful power output}}{\text{total power input}}$$



Some energy is always wasted. Nothing is 100% efficient.

Efficiency

Non-renewable – coal, oil, gas - they will all run out, they damage the environment, but provide most of the energy.

Renewable – they will never run out, can be unreliable and do not provide as much energy.

Energy Resource	Advantages	Disadvantages
solar – using sunlight	Renewable, no pollution, in sunny countries it is very reliable.	Lots of energy needed to build, only works during the day, cannot increase power if needed.
geothermal – using the energy of hot rocks	Renewable and reliable as the rocks are always hot. Power stations have a small impact on environment.	May release some greenhouse gases and only found in specific places.
wind – using turbines	Renewable, no pollution, no lasting damage to the environment, minimal running cost.	Not as reliable, do not work when there is no wind, cannot increase supply if needed.
hydroelectric – uses a dam	Renewable, no pollution, can increase supply if needed.	A big impact on the environment. Animals and plants may lose their habitats.
wave power – wave powered turbines	Renewable, no pollution.	Disturbs the seabed and habitats of animals. Unreliable.
tidal barrages – big dams across rivers	Renewable, very reliable, no pollution.	Changes the habitats of wildlife, fish can be killed in the turbines.
biofuels	Renewable, reliable, carbon neutral.	High costs, growing biofuels may cause a problem with regards to space, clearance of natural forests.
non-renewable – fossil fuels	Reliable, enough to meet current demand, can produce more energy when there is more demand.	Running out, release CO_2, leading to global warming, and also release SO_2 which causes acid rain.

Trends in energy resources – most of our electricity is generated by burning fossil fuels and nuclear. The UK is trying to increase the amount of renewable energy resources. The governments are aware that non-renewable energy resources are running out; targets of renewable resources have been set. Electric and hybrid cars are also now on the market.

However, changing the fuels we use and building renewable power plants cost money. Many people are against the building of the plants near them and do not want to pay the extra in their energy bills. Hybrid and electric cars are also quite expensive.

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