BRISTOL METROPOLITAN ACADEMY

Knowledge Organisers 2021-22 Year 9 – Term 2

1st November 2021	Week A
8th November 2021	Week B
15th November 2021	Week A
22nd November 2021	Week B
29th November 2021	Week A
6th December 2021	Week B
13th December 2021	Week A

Complete your homework on the night stated e.g. if it is a Monday week A you will complete DT and English homework.

	Week A	**Week B**
Monday	English/DT	Science/MFL
Tuesday	Maths/Drama	ICT/PE
Wednesday	Science	English
Thursday	RS/Music	Geography/Art
Friday	History	Maths

How to use your knowledge organiser

Top tips:
1. Focus on the information you are most unsure of first
2. Follow the timetable in your homework book to make sure you are revisiting subjects equally
3. Don't panic if you don't remember all the information first time, keep revisiting it
4. You can ask your parents/carers to test you/check your work

Look

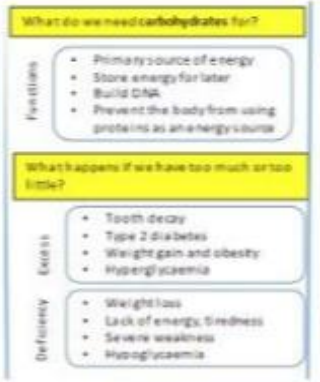
What topic/subject are you focusing on?

What task have you been set?

Self quizzing

You need to create 5 questions (with their answers) about the content on the knowledge organisers.

Top tip! Use subject specific language e.g. function. If you aren't sure what they mean, look it up, ask an adult or ask your teacher.



Questions you might consider:

1. What is a key function of carbohydrates?

It is our primary source of energy.

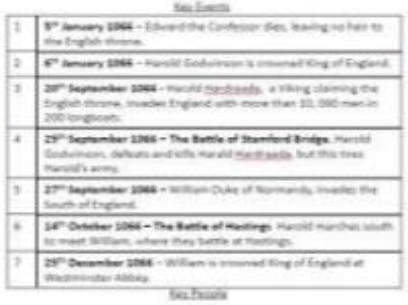
Write

Complete the task in your homework book.

Make sure to write the date, subject and topic you are focusing on (and underline them).

Revision

Here you are recording key facts/concepts to help you remember them.



You might write these key events out like a timeline.

Key events

5th January 1066 Edward the Confessor dies, leaving no heir to the English throne.

6th January 1066 Harold Godwinson is crowned King of England

Keyword/theme development

Here you are focusing on keywords/ themes and practising memorising them.

Key Terms	Definitions
State of matter	Matter is divided into three states: solid, liquid, and gas
Melting	Change of state from solid to liquid
Freezing	Change of state from liquid to solid
Evaporation	Change of state from liquid to gas
Condensation	Change of state from gas to liquid

Copying these words into your book can help you to remember them.

Check

Once you have finished go back and check your work against the knowledge organiser. Make any corrections crossing out mistakes with a single line.

Why not ask someone at home to check your work with you?

Contents:

Year 9 — Past Project

Content: In this project you will learn
Knowledge – different artists who have represented
Understand – What inspired these artists to create work and how to write about the work
Skills – You will learn how to analysis artists work, improve drawing skills, tonal work, ceramics
Outcome – Tonal drawing and ceramic piece

The Suffragettes' Movement

The women's suffrage movement was a decades-long fight to win the right to vote for women in the United States. It took activists and reformers nearly 100 years to win that right, and the campaign was not easy: Disagreements over strategy threatened to cripple the movement more than once.

The Civil Rights Movement

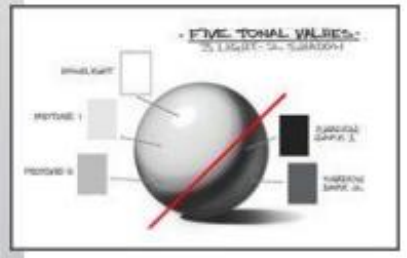
The civil rights movement in the United States was a decades-long struggle by African Americans and their like-minded allies to end institutionalized racial discrimination, disenfranchisement and racial segregation in the United States.

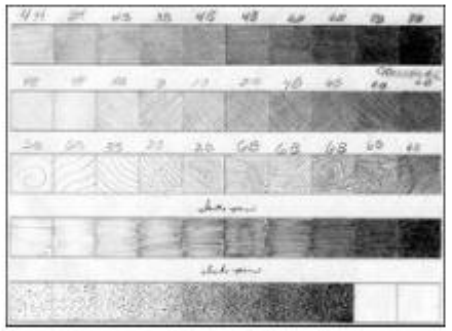
The Stonewall Riots

The Stonewall riots were a series of spontaneous, violent demonstrations by members of the gay community in response to a police raid that began in the early morning hours of June 28, 1969, at the Stonewall Inn in the Greenwich Village neighborhood of Manhattan, New York City.

KEYWORDS

Conflict
Inequality
Racism
Discrimination
Slavery
Apartheid
Female emancipation
Social Class
Gay rights





GSCE ART Annotation

Shape, form, space	Tone	Pattern and Texture	Line	Colour
Closed	Bright	Repeated	Fluent	Bright Bold
Open	Dark	Uniform	Free Rough	Primary
Distorted	Faded	Geometric	Controlled	Secondary
Flat	Smooth	Random	Powerful	Tertiary
Organic	Harsh	Symmetrical	Strong	Radiant
Deep	Contrasting	Soft	Geometric	Dull Vivid
Flat	Intense	Irregular	Angular	Contrasting
Positive	Sombre	Coarse Bold	Light	Deep
Negative	Grey	Uneven	Delicate	Monochrome
Foreground	Strong	Bumpy	Flowing	Harmonious
Background	Powerful	Rough	Simple	Complementary
Composition	Feint	Smooth	Thick Thin	Natural
Curvaceous	Light	Uneven	Horizontal	Earthy
Elongated	Medium	Spiky	Broken	Subtle
Large	Dark	Broken	Interrupted	Pale
Small	Dramatic	Furry	Rounded	Cool Warm
2D 3D	Large	Fine Flat	Overlapping	Saturated
	Small	Grid	Broken	Luminous
			Faint	Strong

Basic, simple, solid, loud, quiet, bright, realistic, stylised, observed, busy, vibrant, strange, interesting, balanced, lively, negative, recognisable, abstract, tactile, meaningful, symbolic, depressing, unique, emotive, hidden, textural, dynamic, disturbed, sophisticated, puzzling, optimistic, powerful, intentional, concealed, subtle.

Example

I have created this piece using watercolours, coloured pencil and oil pastel. I have learnt how to blend the watercolours to show different tones and use oil pastels to show the darkest tones and add texture. The piece shows strong shapes and vivid colours. I have added coloured pencils to show some areas in more detail and focus. The artist Georgia O'Keeffe has inspired my piece. In her work she uses bright, bold colours to show close up views of flowers with a range of dark to light tones. I aim to now further develop my piece by using other materials. I could do this by experimenting with block prints on watercolour back grounds or possibly try painting onto fabric to then stitch into to show more detail.

REMEMBER to check your.. Spellings, Grammar and Punctuation

Sentence Starter Help

Try thinking of your own too

- In this piece I have...
- The materials I have used are...
- The technique I have used is...
- Through working in this way I have learnt how to...
- I have shown... in the style of...
- This piece could develop further by including...
- The artist ..... has influenced my designs because...
- To develop this piece further I could...
- I think using... worked really well because...
- I am particularly pleased with... and I now aim to....

Year 9 - Networks

Year 7 and 8 - Knowledge

Strong Passwords
Prevents unauthorised access to a computer system. A strong password contains: *Uppercase letters, Lowercase letters, Numbers, Symbols, 8 or more characters*

Saving Files
It is important to regularly save files/work so that you do not lose your work.

How to save a file?
1. Save in your documents
2. Save with a relevant file name
3. Saved in an appropriate folder structure
4. Save the file in a folder that is relevant to the topic

Save and Save As
- "Save" updates a file
- "Save As" creates another version of the file

Networks
Computers connected together that share data and resources.

Cloud Storage
Cloud computing is storage that you can access through the Internet

\+ Files can be accessed from anywhere
\+ You have unlimited storage space and can store for free
\+ Allows you to create more local storage
\+ Good form of a backup storage
\+ Does not require expensive hardware
\- You need internet access
\- Has the potential to get hacked
\- Data could be seen by a third party
\- Can be expensive long term

Year 9 - Knowledge

Networks Types

Two or more computers connected together that share data and resources

LAN (Local Area Network)
Network in a small geographical area
Example: Small Office, School

WAN (Wide Area Network)
Network in a large geographical area
Example:The Internet

WPAN (Personal Area Network)
Network centred around a single user
Example: Bluetooth Headset, Hotspot

Advantages of Networks:
\+ Sharing files is easier
\+ Share hardware (printers)
\+ Updates are central
\+ User accounts can be stored centrally

Disadvantages of Network:
\- Set up could be expensive
\- Vulnerable to hacking
\- Need specific hardware
\- Might need a network manager

Bluetooth

Short range wireless connection

\+ Very common connection type **and** Low power usage
\- Low bandwidth **and** Short range

Wired and Wireless

Wired Networks
Computers connected together using wires.

\+ Fast connection
\+ More secure than wireless
\- Set up could be expensive
\- Wires are trip hazards
\- Difficult to connect new devices

Wireless Networks
Computers connected together using wireless connections (Wi-Fi).

\+ Freedom to move around
\- Less secure
\- Connection can be interrupted by walls and other electronic devices

Cyber Security

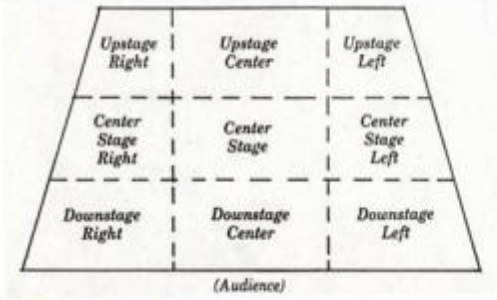
Malware - Any hostile or intrusive softwares
Hacking - People that gain unauthorised access to a computer
Prevention - Passwords, Antivirus, Firewall, Encryption

Stage Configurations

KS4 Knowledge Organiser

Stage positioning

Where actors stand while onstage.



Thrust

A **thrust stage** extends into the audience on three sides and is connected to the backstage area by its upstage end. A thrust has the benefit of greater intimacy between performers and the audience, while retaining the utility of a backstage area. Entrances onto a thrust are most readily made from backstage, although some theatres provide for performers to enter through the audience.

Promenade

Promenade theatre is extremely versatile. With no formal stage, and the audience and actors occupying the same space, it allows for experimentation with both new and old plays and explores what the theatrical experience can entail for an audience. In moving the audience around throughout the performance, promenade theatre also pushes boundaries of setting in a way that can't be achieved in regular theatre.

Proscenium Arch

An arch framing the opening between the stage and the auditorium. This create a 'window' around the scenery and performers. IT gives everyone in the audience a good view because the performers need only focus on one direction rather than continually moving around the stage to give a good view from all sides. A proscenium theatre layout also simplifies the hiding and obscuring of objects from the audiences view (sets, performers not currently performing, and theatre technology). End on staging is a proscenium without the wings and picture frame.

Traverse

Audience is predominantly on two sides of the stage, facing towards each other. Also known as alley or corridor stage. Sometimes on end of the stage space may also end in audience, making it similar to thrust or three-quarter round stage. Other times, the ends of the stage are much larger than the traverse stage itself allowing for more space for actors, sets and scenery.

In-the-Round

The audience is seated in a circle around the **stage** or on at least three of its sides. The stage is always in the centre with the audience arranged on all sides. Actors entering and exiting through the audience from different direction.

Theatre Roles

KS4 Knowledge Organiser

Playwright	This is the name given to the person who writes the play.
Performer	A performer is an actor or entertainer who plays a role or performance in front of an audience.
Understudy	An actor who studies another's role so that they can take over when needed.
Lighting designer	Responsible for designing the lighting states and, if required, special lighting effects for a performance. The final design will result in a lighting plot which is a list of the lighting states and their cues.
Sound designer	Responsible for designing the sound required for a performance. This may include underscoring, intro and outro music as well as specific effects. The final design will result in a sound plot which is a list of the sounds required and their cues.
Set designer	Responsible for the design of the set for a performance. They will work closely with the director and other designers so that there is unity between all the designs and the needs of the performance.
Costume designer	Designs the costumes for a performance. The costume department of a theatre is often called the wardrobe
Puppet designer	Designs the puppets for a performance.
Technician	A person who works backstage either setting up technical equipment such as microphones or rigging lights before a production or operating technical equipment during a performance.
Director	In charge of the artistic elements of a production. A director will often have the initial creative idea ('concept') for a production, will work with the actors in rehearsal, and will collaborate with designers and the technical team to realise this idea in performance.
Stage manager	In charge of all aspects of backstage, including the backstage crew. They will oversee everything that happens backstage before, during and after a performance. During the rehearsal period, the Stage Manager and their team will make sure that all props are found or made, scene changes are rehearsed and smooth, and all other aspects of backstage are prepared. They are also in charge of the rehearsal schedule.
Theatre manager	Responsible for and manages the front-of- house team who deal with the audience during the production (for example, the box office manager, ushers and similar staff).

Genre/Style

Naturalistic/ Naturalism – Attempts to depict things realistically.

Realism - Attempts to depict things as they actually are

Physical Theatre - The body is at the heart of the storytelling

Musical Theatre – Singing, dancing and acting. For example: Musicals

DocuDrama – A piece of theatre based on a real-life event

Tragedy – Sad or shocking

Historical – Based on a real-life historical event. For example WW1

Theatre in Education – Theatre that goes into school to educate students about a social or personal issue.

Year 9 D&T – Term 1 – Pewter Project

Select one symbol from the selection above.

Create a logo for a product/company of your choice using your chosen symbol.

You can achieve this by modifying your chosen symbol by applying a range of composition techniques to develop its shape, form, and visual appeal. Be as creative as possible.

Logo design principles

1. Simple - needs to be easily identifiable at a glance.
2. Memorable – should be easily recalled after just one look.
3. Original – Create a unique design that cannot be confused with another.
4. Timeless - should be modern yet timeless and should avoid trends.
5. Versatile - can be used in a variety of sizes and colours.
6. Appropriate - should be appropriate for the intended audience.

Keywords

Malleable – able to be hammered or pressed into shape without breaking
Innovative- new and original
Analysis - detailed examination of the something
Annotation- analysis added to a text or diagram
Alloy - a metal made by combining two or more metallic elements

What is Pewter?

Pewter is a malleable metal alloy consisting of tin, antimony, copper, bismuth, and sometimes silver. Modern pewter consists of are 94% tin.

Pewter has a low melting point (around 170–230 °C) making it ideal for melting on a chip forge and brazing hearth and casting.

2D Design Basic Tools

2D DESIGN V2

SELECT – Use this tool to select different to highlight objects.

LINE – This tool creates straight lines. Click to start the line, extend out and click to finish.

CIRCLE – This tool creates circle shapes. Click to start the circle, extend to the size needed and click to finish.

PATH – This tool creates curved lines through continual clicks.

RECTANGLE – This tool can be used to create both rectangular and square shapes.

ABC TEXT – Use this tool to insert text onto your designs. The font, size and direction of the text can be changed.

DEL DELETE PART – Use this tool to delete separate lines and objects.

DEL ANY DELETE ANY – Use this tool to delete whole lines and objects.

Isometric Drawing Shows Objects at 30°

1) Isometric drawing can be used to show a 3D picture of an object.
2) It doesn't show perspective (things don't get smaller in the distance), but it's easy to get dimensions right.
3) There are three main rules when drawing in isometric:
   - Vertical edges are drawn as vertical lines
   - Horizontal edges are drawn at 30°
   - Parallel edges appear as parallel lines

This drawing's been done on isometric dot paper. You could use plain paper and a 30°/60° set square instead.

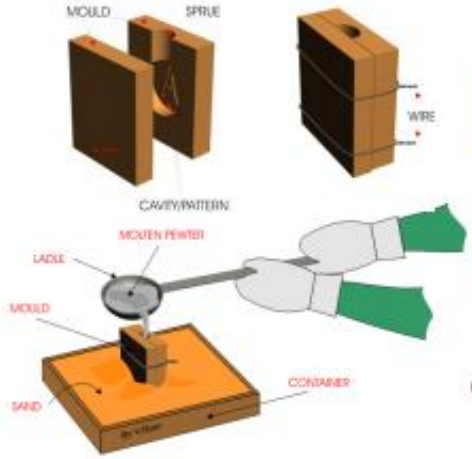
Crating Can Be Used to Draw 3D Shapes

Crating is where you start by drawing a box — the 'crate' — and gradually add bits on and take bits off till you get the right shape. For example, you can remove sections from a cuboid to make any other 3D shape.

1) When you're sketching a 3D object, it's easier if you imagine it as a basic shape.
2) First draw the basic geometric shape faintly.
3) Stick to a particular drawing technique — isometric drawing, for example.
4) The object can then be drawn within the box.
5) Details of the object can be added by drawing more geometric shapes on top.

CAD/CAM

CAD stands for Computer Aided Design.
It involves designing products on a computer, rather than using a pencil and paper.
CAD packages include 2D drawing software (e.g. Adobe® Illustrator®, CorelDRAW®, TechSoft 2D Design® and ArtCAM®) and 3D modelling software (e.g. SolidWorks®).
CAD helps designers model and change their designs quickly. It's easy to experiment with alternative colours and forms and you can often spot problems before making anything.
In 3D programs, you can view the product from all angles.
CAM stands for Computer Aided Manufacture.
It's the process of manufacturing products with the help of computers.
CAD software works out the coordinates of each point on the drawing. These are called x,y,z coordinates — x is the left/right position, y is forwards/backwards and z is up/down. The point where x, y and z meet is (0,0,0) — the datum.
CAM machines are computer numerically controlled (CNC) — they can follow the x,y,z coordinates and move the tools to cut out or build up your design.
For example, some milling machines are CAM machines. They remove material from a larger piece of material to shape and create a product.



Jewellers Clamp

Wire Wool

Needle Files

Polishing Machine

Metalworking Vice

Silicon Carbide Paper

Safety Gear

Evaluation

Designers evaluate their finished products or prototypes in order to test whether they work well and if the design can be corrected or improved. Whatever you have designed it is important to evaluate your work constantly during the project.
Evaluation can take a variety of forms:

- General discussion with other pupils, staff and others.
- Questionnaires / surveys carried out at any time during the project.
- Your personal views, what you think of existing designs.
- Most important of all - what do you think of your designs, prototypes and finished products ?
- Can you think of any other ways of evaluating your work ?

Context

McCarthyism – accusations of disloyalty, subversion , or treason without proper regard for evidence.
Italian Immigration – Immigrants usually faced persecution from other Americans, which is why they live together for protection.
American Dream – Life should be better, richer and fuller for everyone.
Greek Tragedy – Central character cannot avoid their tragic fate.

Plot

Eddie Carbone is an Italian longshoreman working on the New York docks. When his wife's cousins, Marco and Rodolfo, seek refuge as illegal immigrants from Sicily. Eddie agrees to shelter them. The trouble begins when his wife's niece is attracted to Rodolfo. Eddie's jealousy culminates in an unforgivable crime against his family and the Sicilian community.

Characters

Alfieri: An Italian-American lawyer. He narrates the story, speaking directly to the audience and attempts to make the social and moral implications of the story clear.
Eddie: An Italian immigrant and longshoreman (dockyard worker). He is the husband of Beatrice and Catherine's non-biological uncle. He is the **tragic hero** of the play.
Beatrice: An Italian immigrant and Eddie's wife. She has raised Catherine since the death of her mother. She is a warm and caring character.
Catherine: The orphaned niece of Beatrice and Eddie. Catherine has been sheltered by Beatrice and Eddie and wants to experience the world.
Marco: Cousin of Beatrice and an illegal Italian immigrant. He is hard working and plans to send the money he earns back to his family in Italy.
Rodolpho: Cousin of Beatrice and an illegal Italian immigrant. Rodolpho is seen as an effeminate (acting in a stereotypical feminine way) because he cooks, sews, sings and dances. He wants to be an American and gain wealth and fame. His relationship with Catherine causes problems with Eddie.

Symbolism

Brooklyn Bridge - Alfieri's viewpoint from the bridge that links Italian and American cultures and allows Alfieri to narrate past events to the audience.
Italy – Homeland, origin and cultural link to the people of that community.
High heels - For Catherine, high heels are representative of womanhood, flirtation and sexiness.

Key quotes

"I'm ashamed. Paper Doll they call him. Blondie now." – Eddie isn't happy with the way that Rodolpho presents himself. He worries that the other longshoreman will judge him and doubt his masculinity.
"My wife – she feeds them from her own mouth." – Marco tells Eddie and Beatrice how poor their family is in Italy. It makes it clear why he and Rodolpho have come to America.
"All the law is not in a book." – This links to the key themes of Justice and Honour. The Italian community live by their own rules that are outside the law. E.g. If you snitch, you are exiled from the community and may be beaten or killed.
"Called me a rat in front of the whole neighborhood." – Eddie shows his anger at Marco's words. He doesn't want to be dishonoured in the Italian community.
"Eddie, I never meant to do nothing bad to you." – Catherine shows how upset she is. She doesn't understand Eddie's behaviour and realises that her relationship with him has changed forever.
"He allowed himself to be wholly known, and for that I think I will love him more than all my sensible clients." – Alfieri respects Eddie and his outpouring of emotions. Alfieri feels that Eddie is a product of the Italian community and could not have changed his fate.

Key Words

Tragic hero: A main character who has a **tragic flaw** which leads to their downfall or death.
Tragic flaw: the character defect that causes the downfall of the **tragic hero.**
Tragedy: a genre of play which deals with tragic events and ends in an unhappy ending. It usually involves the downfall of the main character.
Foreshadowing: a warning of a future event.
Prologue: an event or act that leads to another.
Narrator: a person who retells or recounts the events of a novel or play.

Themes

Community –
Law versus Honour: American law (represented by Alfieri) is not followed in the Italian community. Instead, they follow their own form of justice based on **honour**. E.g. If you snitch, you will be exiled from the community and beaten/killed.
Masculinity: Gender stereotypes influence the characters, especially Eddie. He is determined to be masculine and is suspicious of Rodolpho's 'feminine' behaviour.
Love: Confusion between familial love and romantic love causes issues within the play.
Jealousy: Eddie's jealousy becomes his **tragic flaw** and leads to his downfall.

Year 9- Food

What do we need **proteins** for?

Functions
- Build enzymes and hormones
- Build cell membranes
- Repair and maintain tissues
- Defend the body (antibodies)
- Secondary source of energy

What happens if we have too much or too little?

Excess
- Kidney and liver diseases
- Weight gain

Deficiency
- Kwashiorkor
- Slowing growth rate
- Swelling

Protein alternatives

Vegetarians and **vegans** don't consume meat so instead they use protein alternative products which are manufactured in order to provide protein in a diet and protein rich foods.

Soy chunks

Tofu

Textured vegetable protein (TVP)

Tempeh

Beans, lentils, chickpeas

What do we need **carbohydrates** for?

Functions
- Primary source of energy
- Store energy for later
- Build DNA
- Prevent the body from using proteins as an energy source

What happens if we have too much or too little?

Excess
- Tooth decay
- Type 2 diabetes
- Weight gain and obesity
- Hyperglycaemia

Deficiency
- Weight loss
- Lack of energy, tiredness
- Severe weakness
- Hypoglycaemia

What do we need **fats** for?

Functions
- Source of energy
- Insulation
- Dissolve vitamins
- Build hormones
- Build cell membranes

What happens if we have too much or too little?

Excess
- Obesity
- Hypertension
- Coronary heart disease
- Fatty liver disease
- Type 2 diabetes

Deficiency
- Weight loss
- Vitamin deficiency
- Heart disease
- Feeling cold

There are two different types of fats

Macros

Protein
Build & Protects Muscle
found in meat, dairy & some plants

Fat
Provides Long Lasting Energy
found in nuts, oils, dairy & meat

Carbs
Quickest Source of Energy
found in fruits, veggies & grains

Micros

Vitamins
Made by Plants & Animals
found in meat, dairy & plants

Minerals
Consumed by Plants & Animals
found in meat, dairy & plants

Visible fats

Fats you can see, such as on meat are often saturated.

Invisible fats

Unsaturated fats you cannot see, such as in nuts and avocados. They are often good for the brain,

Butter

Cream

Saturated

Eggs

Olive oil

Unsaturated

Avocado

Micronutrients

Vitamins and minerals are essential nutrients that your body needs in small amounts to work properly.

Fat-soluble vitamins
Fat-soluble vitamins (vitamin A, D, E and K) are mainly found in:
animal fats, vegetable oils, dairy foods, liver and oily fish
While your body needs these vitamins to work properly, you don't need to eat foods containing them every day.

Water-soluble vitamins
Water-soluble vitamins (vitamin C, the B vitamins and folic acid) are mainly found in:
fruit and vegetables, grains, milk and dairy foods
These vitamins aren't stored in the body, so you need to have them more frequently.
If you have more than you need, your body gets rid of the extra vitamins when you urinate.

Minerals
Minerals include calcium and iron amongst many others and are found in:
Meat, cereals, nuts, fish, milk and dairy foods, fruit and vegetables

Minerals are necessary for 3 main reasons:
Building strong bones and teeth
Controlling body fluids inside and outside cells
Turning the food you eat into energy

Food Fortification

During processing, many food products lose their nutritional value.

The function of fortification is to:
- Restore nutritional value of foods.
- Improve nutritional value of foods.
- Make food more suitable for certain groups of consumers.
- Prevent diseases caused by malnutrition.

Some foods are fortified by law:

Wheat, flour and bread	Thiamine	To prevent beriberi disease, help release energy from food.
	Niacin	To prevent pellagra, help release energy from food.
	Calcium	To prevent rickets and osteoporosis.
	Iron	To prevent iron deficiency anaemia.
Vegetable fat spreads	Vitamin A	To prevent growth and eyesight issues, such as night blindness.
	Vitamin D	To prevent rickets and osteoporosis.
Semi-skimmed and skimmed milk	Vitamin A	To prevent growth and eyesight issues, such as night blindness.

Other foods, such as cereals and fruit juices, are fortified voluntarily.

9.9 Technology and Media

Technology verb infinitives	
supprimer	to delete, erase
charger	to load
tchatter	to chat online
poster des photos	to post photos
communiquer	to communicate
répondre	to answer
créer	to create
donner	to give
télécharger	to download
envoyer	to send
functionner	to work, to function
enregister	to save
parler	to speak, to talk
surfer sur Internet	to surf the internet
pouvoir	to be able to
recevoir	to receive
prendre des photos	to take photos
regarder en streaming	to stream
utiliser	to use

Technology nouns	
Un dossier	file
Un courrier indésirable	spam, junk mail
Un courrier électronique	email
Un disc dur	hard drive
Un jeux	game
Un texto/un SMS	text message
Un téléphone portable	mobile/smartphone
Un ordinateur	computer
Un ordinateur portable	laptop
Un jeux-vidéo	video game
Une chanson	song
Un écran	screen
Internet	internet
Un réseau social	social network
Une magazine (digitale)	(digital) magazine
Un salon de discusión	chat room
Una tablette	tablet
La technolgoie	technology

Technology adjectives	
ennuyeux/se	boring
vieux/vieille	old
animé(e)	exciting
confus	confusing
court(e)	short
à la mode	fashionable
lent(e)	slow
divertissant(e)	entertaining
effrayant(e)	scary
estimulant(e)	stimulating
informatif/ve	informative
interéssant(e)	interesting
inutile	useless
longue	Long
dangereux/se	dangerous
pratique	practical
rapide	fast
ridicule	ridiculous
cassé(e)	broken
utile	useful

Tv Genres	
les comédies	comedies
les jeux télévisés	quiz shows
les documentaires	documentaries
les infos	the news
les programmes de sport	sports programmes
les séries policières	police shows
les feuilletons	soap operas

Les émissions de musique	music programmes
La télé-réalité	reality TV
Le dessin animé	cartoon
Le série policière	police series
La météo	weather
La publicité	advert

Film genres	
Les films d'action	action films
Les films d'amour	romantic films
Les films de science fiction	sci-fi films
Les films dramatique	dramatic films
Les films à suspense	Suspense/thriller films
Les films d'horreur	horror films

9.9 French Technology and Media Knowledge Organiser

3 time frames
Infinitives
Time phrases and connectives
Negative constructions
Opinions and justifications
Comparatives and superlatives

Comparatives – to express more or less than
… c'est plus…adjective…que - is more…adjective…than
… c'est moins …adjective ….que - is less…adjective… than
… c'est aussi…adjective….que – is as…adjective…as
For example:
Il est **plus** *grand* ***que*** *son frère. (He is taller (more tall) than his brother.))*
Cette maison est ***moins*** *grande* ***que*** *notre maison. (This house is smaller (less big) than our house.))*
Ce chien est ***aussi*** *grand* ***que*** *mon chat. (This dog is as big as my cat).*

Make a French comparison from good to better or from bad to worse:
Like in English the words for bad and good are irregular . Good > better (bon > **mieux**) and bad>worse (mauvais > **pire**).
For example:
Cette pizza est **mieux que** l'autre. (This pizza is better than that other one.)
La grippe est **pire qu'**un rhume. (Flu is worse than a cold)

**Notice that the adjective always agrees with the first noun*

Superlatives – to express the biggest, the most interesting etc…
… c'est le/la/les plus + adjective – is the most + adjective
….c'est le/la/les moins + adjective - is the least + adjective
For example:
La plus *intelligente de la classe (the most intelligent in the class)*
Le moins *grand de la famille (the shortest (least tall) in the family)*

Adjectives describe nouns e.g. a **blue** phone.
In French, adjectives normally go after the words they are describing e.g. un portable bleu (a blue mobile phone) and they have to agree with the noun they are describing.
In French, adjectives must agree with the noun (or pronoun) they describe in gender and in number. This means that if the noun an adjective describes is feminine, the adjective must be feminine e.g. une télévision noir**e** (a black televisión). If that same noun is also plural, the adjective will be feminine AND plural as well e.g. les télévisions noir**es** (black televisions).

Opinion phrases	
À mon avis	In my opinion
Je pense que	I think that
Je crois que	I believe that
Je dirais que	I would say that
Personellement	Personally
Je considère que	I consider that
De mon point de vue	From my point of view
Je le/les trouve	I find it / them

Connectives	
et	and
mais	but
parce que	because
çependant	however
en plus	furthermore
par exemple	for example
ensuite	then
finalement	finally
néanmoins	nevertheless

Time phrases	
Aujourd'hui	Today
Normalement	Normally
De temps en temps	Sometimes
Le weekend	On the weekend
(Deux) fois par semaine	(Twice) a week
Souvent	Often
Toujours	Always
Hier	Yesterday
Avant-hier	The day before yesterday
La semaine dernière	Last week
Le weekend dernier	Last weekend
Le mois dernier	Last month
L'année dernière	Last year
Hier soir	Last night
Il y a (deux jours/ans)	(Two days/years) ago
Demain	Tomorrow
À l'avenir	In the future
Le weekend prochain	Next weekend
La semaine prochaine	Next week
L'année prochaine	Next year

9.10 Leisure and heathy living vocabulary list

Les activités	activities
Aller	to go
jouer	to play
manger	to eat
visiter	to visit
faire	to do
danser	to dance
boire	to drink
regarder	to watch
écouter	to listen
lire	to read
achêter	to buy
finir	to finish
voir	to see
écrire	to write
dormir	to sleep
nager	to swim
rencontre	to meet
voyager	to travel
chanter	to sing
envoyer des SMS	to text
contacter	to contact
téléphoner	to call
cuisiner	to cook
télécharger	to download
travailler	to work
aider	to help
méditer	to meditate
se rélaxer	to relax
se détendre	to rest

Les endroits	Places
Chez moi	At home
Chez mon ami	At my friend's house
Chez mon père	At my dad's
Chez ma mère	At my mum's
Chez mes grand-parents	At my grand-parents'
Dans ma chambre	In my room
Dans le salon	In the living room
Dans le jardin	In the garden
Dans ma zone	In my neighbourhood
En Angleterre	In England
À l'étranger	Abroad
En ville	In town
À la camagne	In the countryside
À la montagne	In the mountains
Au bord de la mer	By the seaside

Les gens	People
Avec	With
Mes amis	My friends
Mon frère	My brother
Ma soeur	My sister
Mes parents	My parents
Ma famille	My family
Seul(e)	Alone

Intensifiers

très – very	trop – too
tellement– so	vraiment – really
assez – quite	éxtremement – extremely
un peu – a bit	pas du tout - not at all

Adjetivos	Adjectives
Amable	Kind
Agradable	Pleasant
Content(e)	Happy
Bavard(e)	Chatty
Beau/belle	Beautiful
Amusant(e)	Fun
Migon(ne)	Cute
Joli(e)	Pretty
Propre	Clean
Parfait	Perfect
Rapide	Fast
Riche	Rich
Sage	Wise
Timide	Shy
Travailleur/se	Hard working
Triste	Sad
Ennuyeux/se	Boring
Embêtant(e)	Annoying
Serieux/se	Serious
Facile	Easy
Difficile	Difficult
Stricte	Strict
Moche	Ugly
Bruyant(e)	Noisy
Impoli(e)	Rude
Horrible	Horrible/Awful
Paresseux/se	Lazy
Sportif/ve	Sporty
Enrichissant/e	Enriching
Intéressant(e)	Interesting
Vieux/vieille	Old
Relaxant	Relaxing

Healthy living key verbs	
Se coucher	to go to bed
Avoir envid de	to fancy, to feel like
Courir	to run
Se droguer	to take drugs
Se soûler	to get drunk
Se sentir bien/mal	to feel well/ill
Être au régime	to be on a diet
Être en forme	to be fit
Éviter	to avoid
Fumer	to smoke
Essayer de (+ infinitive)	to try to
Se lever	to get up
Rester en forme	to keep fit
S'inquiéter	to worry
Goûter	to try, to taste,
Se sentir	to feel
Vaincre	to overcome
Avoir mal	to have a pain (in)
Être fatigué	to be tired

9.10 Leisure and heathy living

3 time frames
Infinitives
Time phrases

opinions
justifications
describing and comparing

Verbs and the present tense in French

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the ***infinitive*** (manger, boire, jouer, visiter, habiter, aller etc.). The infinitive ends in **–re**, **-er** or **–ir.**

Forming the present tense in French

Take off the last 2 letters of the infinitive (**–re**, **-er** or **–ir)** and add the following endings depending on the pronoun:

*Important! There are some key irregulars to learn which don't follow this pattern – aller (as shown here), être, avoir and faire are really important!

	RE verb	ER verb	IR verb
Je (I)	-s	-e	-s
tu (you)	-s	-es	-s
il/elle (he/she)		-e	-t
nous (we)	-ons	-ons	-issons
vous (you all)	-ez	-ez	- issez
ils/elles (they)	-ent	-ent	- issent

Verbs and the near future tense in French

You can talk about the future by using the **near future** tense.

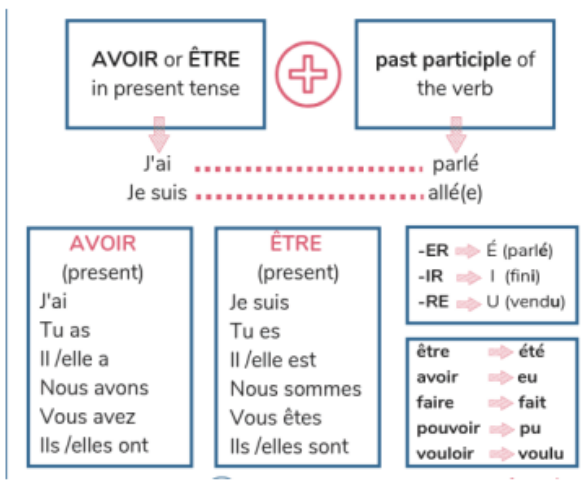
Use part of the verb ALLER + a + the infinitive to say what you are **going** to do.

Ce soir je vais jouer au tenis. *This evening I am going to play tennis.*

Demain Paul va a faire un gateau. *Tomorrow Paul is going to make a cake.*

Aller (to go)	
Je vais	I am going
Tu vas	You are going
Il/elle va	He /she/one is going
Nous allons	We are going
Vous allez	You (lot) are going
Ils/elles vont	They are going

Verbs and the past tense in French



9.10 Leisure and heathy living

3 time frames
Infinitives
Time phrases

opinions
justifications

1.Expressing FUTURE intentions :

J'ai l'intention de + infinitive (I plan to/ I intend to ...)

Je voudrais + infinitive (I would like to...)

2.Using infinitives after j'aime/je m'aime pas/je déteste/je préfère :

You can also use an infinitive after opinion verbs such as aimer, détester and préférer. They are usually translated with a **gerund** (a verb ending with -ing) in English:

J'aime *habiter* à Newcastle - I like living in Newcastle.

Tu préfères *jouer* au foot ou au tennis? - Do you prefer playing football or tennis?

Je déteste *boire* du café parce que c'est dégoûtant – She hates drinking coffee because it's disgusting.

3.Opinions

J'aime - I like

J'aime beaucoup- I like **a lot**

Je n'aime pas beaucoup- I don't like **much**

Je préfère – I prefer

Je déteste - I hate

Je ne peux pas supporter - I can't stand

4.Justification

Parce que - because

Ainsi– therefore/so

Par conséquent - consequently

5.Comparisons

Plus…..que –more…than

Moins…que - less…than

Aussi…que – as…as

6.Superlative

Le/la plus – the most

Le/la moins – the least

Le/la mieux – the best

Le/la pire – the worse

7.Time phrases

Normalement - normally

D'habitude - usually

Géneralement - generally

Quelquefois – sometimes

Ensuite – next

Rarement - rarely

Le weekend prochain– next weekend

La semaine prochaine - next week

Le weekend dernier - last weekend

Le mois dernier - last month

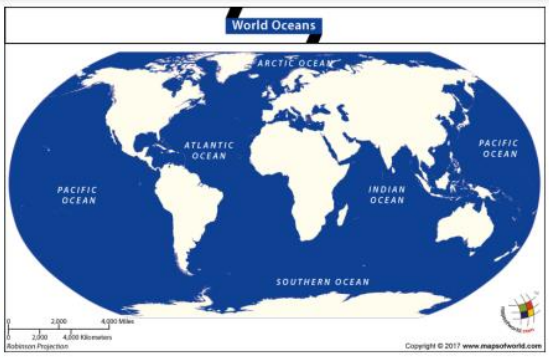
L'été dernière - last summer

Pendant le confinement - during lockdown

Geography

Importance of oceans:

The air we breathe	Produce 50% of the world's oxygen.
Climate regulation	Oceans are important to transfer heat from the equator to poles.
Job creation/economy	350 million jobs globally are linked to the ocean.
Food	1 billion people depend on fish for their protein.
Carbon store	Oceans store 5 x more carbon than the rainforests.

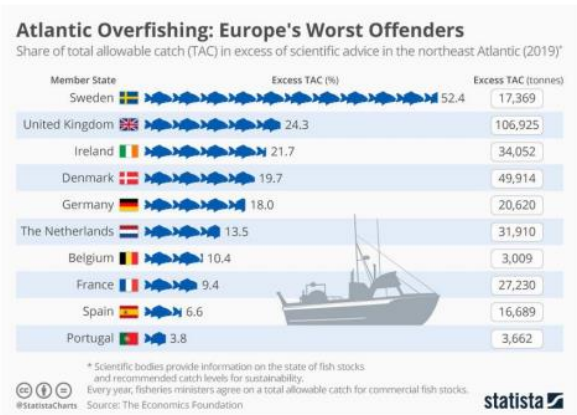


Great Pacific Garbage Patch

+ largest of five offshore plastic accumulation zones.
+ each patch is formed within a ***gyre.***
+ gyre = a large circular ocean current
+ 1.15 – 2.41 million tonnes of plastic enter the ocean each year from rivers.
+ more than 50% of this plastic does not sink as it is less dense than water.
+ the plastics are trapped in the currents and don't leave until they are broken down into smaller microplastics.
+ microplastics find their way into the food chain.

Year 9 Geography Oceans (1)

Overfishing	catching more fish than the natural system can replace.
Sustainable fishing	Respecting habitats and leaving enough fish in the ocean.
1900	Oceans contained 6 times more fish than today.
58%	Oceans fished to their limits
31%	Oceans over-fished
$35 billion	Amount spent by governments globally to support fishing.



The Northwest Passage

What:
- A sea route connecting the Atlantic and Pacific Oceans.
- Usually impassable due to sea ice.
- Has been passable recently due to melting sea ice

Why:
- Due to climate change, the sea ice has melted allowing ships to pass through
- There are both human and physical causes of climate change (see table)

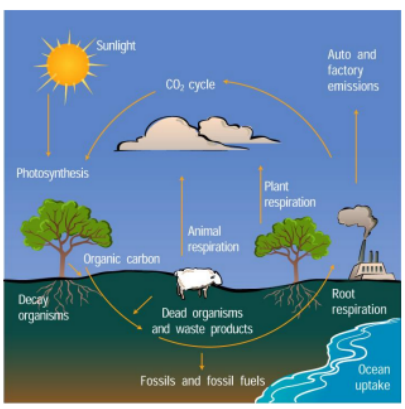
Ocean acidification – a change in properties of ocean water that can be harmful for plants and animals.

The ocean is becoming more acidic as its water absorbs carbon dioxide from the atmosphere. (see the carbon cycle)

30% - how much more acidic the ocean has become in the past 100-200 years.

Biodiversity – the variety of plant and animal life in a particular habitat.

IMPACTS OF ACIDIFICAITION	
Fish - the pH of blood in the fish changes due to the lower pH in the ocean. (acidosis)	**Osyters, mussels etc.** – struggle to build their shells in more acidic water conditions.
Plants and algae – lots of species thrive in more acidic conditions. Algae needed to build coral reefs does not do so well.	**Coral reefs** – can limit and slow growth of new coral. By 2080 oceans will be so acidic that health coral will be eroding quicker than being built.



The Carbon Cycle

Human	Physical
Agriculture – methane (greenhouse gas) released from rice cultivation and cattle.	**Volcanoes** – big eruptions can change the earths climate. The material released can prevent solar energy reaching the earth.
Deforestation – carbon stored in trees is released when the tree is burnt or cut down and rots. Every year, estimate of 1.5 billion tonnes of carbon dioxide released from deforestation.	**Orbital Theory** – over long timescales the earth's orbit changes around the sun, sometimes oval and sometimes oval. The angle of tilt of the axis also changes, and wobbles. This changes the amount and place of sunlight arriving at the earth's surface.
Fossil Fuels – burning coal, oil and gas releases pollutants and greenhouse gases into the atmosphere.	**Ocean currents** – Due to ice melting, the ocean is absorbing more solar radiation and thus getting warmer.

Year 9 Geography Oceans (2)

9.9 Technology and Media - German

Technology verb infinitives	
löschen	to delete, erase
hochladen	to upload
chatten	to chat online
Fotos teilen	to share photos
kommunizieren	to communicate
antworten/beantworten	to answer
schaffen	to create
geben	to give
herunterladen	to download
schicken	to send
funktionieren	to work, to function
speichern	to save (data on computer)
sprechen	to speak, to talk
das Internet surfen	to surf the internet
können	to be able to
bekommen	to receive
Fotos machen	to take photos
streamen	to stream
benutzen	to use

Technology nouns	
eine Datei	file
Junk-Mail	spam, junk mail
eine E-Mail	email
Computerfestplatte	hard drive
Spiele	games
die Nachrichten/SMS	text message
das Handy/das Smartphone	mobile/smartphone
der Compter	computer
der Laptop	laptop
die Computerspiele	video game
das Lied	song
der Bildschirm	screen
das Internet	internet
das soziale Netzwerk	social network
eine Zeitschrift	magazine
Chatroom	chat room
der Tablet- PC	tablet
die Technologie	technology

Technology adjectives	
langweilig	boring
alt/altmodisch	old
spannend	exciting
schwer	difficult
kurz	short
modisch	fashionable
langsam	slow
unterhaltsam	entertaining
gruselig	scary
aufregend	stimulating
lehrreich	informative
interessant	interesting
nutzlos	useless
lang	Long
gefährlich	dangerous
praktisch	practical
schnell	fast
dumm	stupid
kaputt	broken
nützlich	useful

Tv Genres	
die Komödien	comedies
die Quizsendungen	quiz shows
die Dokumentarfilme	documentaries
die Nachrichten	the news
die Sportsendungen	sports programmes
die Krimis	police shows
die Seifenopern	soap operas

Film genres	
die Actionfilme	action films
die Liebesfilme	romantic films
ein Science-Fiction-Film	sci-fi film
die Abenteurfilme	adventure films
der Thriller/der Krimi	Suspense/thriller film
die Horrorfilme	horror films

9.9 German Technology and Media Knowledge Organiser

3 time frames
Infinitives
Time phrases and connectives
Negative constructions
Opinions and justifications
Comparatives and superlatives

Comparisons

Add 'er' to the adjective. You can't add the word 'mehr' = more.
Er ist klein**er** = he is small**er** es ist billig**er** = it is cheap**er**
Exceptions are besser (better)/größer(bigger)/älter(older)

Superlative

You add an '-ste' to the adjective, sometimes '-este' to make it easier to say. Fred ist der Klein**ste** = Fred is the small**est.** Ellie ist die Laut**este**

Comparing Things

Joe ist älter **als** Fred = Joe is older **than** Fred
Joe ist **weniger** alt **als** Fred = Joe is **less** old **than** Fred
Joe ist **so** alt **wie** Fred = Joe is **as** old **as** Fred
Joe ist **genauso** alt **wie** Fred = Joe is **just as** old **as** Fred

Opinion phrases

Opinion phrases help make your work more interesting- have a look at the list on your vocabulary list. Try to use a range of opinions in your work e.g., ich mag (I like), ich denke, dass (I think that)

Verbs and the present tense in German

When you look up a verb in the dictionary, you find its original, unchanged form which is called the ***infinitive*** (machen, essen, trinken, spielen, haben, sein, etc.). The infinitive ends in **–en or just -n**

Forming the present tense in German

For regular verbs follow the pattern opposite
However, the irregular verbs don't follow the pattern exactly. Your teacher will help you with these. (haben/sein/lesen/fahren)

Opinion phrases	
Meiner Meinung nach	In my opinion
Ich denke,dass	I think that
Ich glaube, dass	I believe that
Ich würde sagen	I would say that
Persönlich	Personally
Ich interessiere mich für	I'm interested in
einerseits/andererseits	On the one hand/on the other hand
Ich finde...toll	I find ...great
Ich bin gegen	I am against

Connectives	
und	and
aber	but
denn/weil	because
obwohl	however
außerdem	furthermore
zum Beispiel	for example
dann	then
schließlich/endlich	finally
dennoch	nevertheless

Time phrases	
heute	Today
normalerweise	Normally
ab und zu	Sometimes
am Wochenende	On the weekend
zweimal pro Woche	(Twice) a week
oft	Often
immer	Always
gestern	Yesterday
vorgestern	The day before yesterday
Letztes Wochenende	Last weekend
Letzte Woche	Last week
Letzten Monat	Last month
Letztes Jahr	Last year
gestern Abend	Last night
vor 2 Tagen/2 Jahren	(Two days/years) ago
morgen	Tomorrow
in der Zukunft	In the future
Nächstes Wochenende	Next weekend
Nächste Woche	Next week
Nächstes Jahr	Next year

German

9.10 Leisure and heathy living

3 time frames
Infinitives
Time phrases

opinions
justifications
describing and comparing

Verbs and the present tense in German

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the ***infinitive*** (essen, trinken, spielen, sein, feiern, gehen etc.).

Forming the present tense in German

(I do or I am doing – German does not have a separate '-ing' form)

Take the infinitive – knock off the ending (en) and then add the ending relevant to the person you are talking about. Regular verbs follow the same pattern as 'machen'.

*Important! There are some key irregulars to learn which don't follow this pattern – sein and fahren (as shown here) and fahren are really important!

	machen To do	spielen To play	fahren To go
ich(I)	mache	spiele	fahre
du (you)	machst	spielst	fährst
er/sie (he/she)	macht	spielt	fährt
wir (we)	machen	spielen	fahren
ihr (you all)	macht	spielt	fahrt
Sie (you polite)/sie (they)	machen	spielen	fahren

German and the future tense

You can talk about the future 2 different ways

1. Use a future time phrase and the present tense

Nächste Woche spiele ich Tennis= Next week *I am going to play tennis.*

2. Use a part of 'werden' + an infinitive

Morgen werden wir ins Kino gehen. *Tomorrow we will go to the cinema*

Es wird toll sein = it will be great

werden (will/to be going to)	
ich werde	I will
du wirst	You (sing) will
er/sie/es wird	He /she/it will
wir werden	We will
ihr werdet	You (lot) are going
Sie/sie werden	You polite/They will

Verbs and the past tense in German

Take the present tense of 'haben' or 'sein' + the past participle.

Verbs to do with movement (gehen/fahren etc) take sein

haben = to have	sein = to be
ich habe	ich bin
du hast	du bist
er/sie/es hat	er/sie/es ist
wir haben	wir sind
ihr habt	ihr seid
Sie haben	Sie sind
sie haben	sie sind

Ich habe Tennis gespielt = I (have) played tennis

Ich bin ins Kino gegangen = I went to the cinema

9.10 Leisure and heathy living

3 time frames
Infinitives
Time phrases

opinions
justifications

1.Expressing FUTURE intentions :

Ich habe vor, zu + infinitive (I plan to/ I intend to …)

Ich möchte + infinitive (I would like to…)

2.Using gern/nicht gern/lieber :

These phrases are used with a verb

Ich wohne **gern** in Newcastle - I **like** living in Newcastle.

Gehst du **gern** ins Kino? - Do you like going to the cinema?

Ich spiele **nicht gern** Tischtennis, weil es langweilig ist. - I **don't like** playing football because it is boring

Ich lese lieber Bücher = I **prefer** reading books

3.Opinions

Ich mag - I like/**ich mag…nicht**

Ich liebe- I love

Ich interessiere mich für = I am interested in

Ich bin dagegen – I am against

Ich hasse - I hate

Ich kann…nicht leiden - I can't stand

…..gefällt mir = I like…..

4.Justification

denn – because

weil - because

deshalb– therefore/so

dennoch/trotzdem - nevertheless

obwohl = although

5.Comparisons

Add 'er' to the adjective. You can't add the word 'mehr' = more.

Er ist klein**er** = he is small**er** es ist billig**er** = it is cheap**er**

Exceptions are besser (better)/größer(bigger)/älter(older)

Superlative

You add an '-ste' to the adjective, sometimes '-este' to make it easier to say. Fred ist der Klein**ste** = Fred is the small**est.** Ellie ist die Laut**este**

Comparing Things

Joe ist älter **als** Fred = Joe is older **than** Fred

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Joe ist **so** alt **wie** Fred = Joe is **as** old **as** Fred

Joe ist **genauso** alt **wie** Fred = Joe is **just as** old **as** Fred

7.Time phrases

normalerweise- normally **dann** – then **letztes Wochenende** - last weekend

gewöhnlich - usually **selten** - rarely **letzten Monat** - last month

neulich - recently **nächstes Wochenende**– next weekend **letzten Sommer** - last summer

manchmal – sometimes **nächste Woche** - next week **während Lockdown** - during lockdown

German

9.10 Leisure and heathy living vocabulary list

Die Aktivitäten	activities
gehen/fahren	to go
spielen	to play
essen	to eat
besuchen	to visit
machen	to do
tanzen	to dance
trinken	to drink
fernsehen	to watch TV
hören	to listen
lesen	to read
kaufen	to buy
beenden	to finish
sehen	to see
schreiben	to write
schlafen	to sleep
schwimmen	to swim
treffen	to meet
reisen	to travel
singen	to sing
SMS schicken	to text
kontaktieren	to contact
anrufen	to call/phone
telefonieren	To telephone
kochen	to cook
herunterladen	to download
arbeiten	to work
helfen	to help
nachdenken	to meditate
sich entspannen	to relax
sich ausruhen	to rest

Orte	Places
Zu Hause	At home
bei meinem Freund	At my friend's house
bei meinem Vater	At my dad's
bei meiner Mutter	At my mum's
bei meinen Großeltern	At my grand-parents'
in meinem Schlafzimmer	In my room
im Wohnzimmer	In the living room
im Garten	In the garden
in meiner Gegend	In my neighbourhood
in England	In England
im Ausland	Abroad
in der Stadt	In town
auf dem Land	In the countryside
in den Bergen	In the mountains
an der Küste	By the seaside

Leute	People
mit	With
Meine Freunde	My friends
Mein Bruder	My brother
Meine Schwester	My sister
Meine Eltern	My parents
Meine Familie	My family
allein	Alone

Intensifiers

sehr– very zu– too
so– so wirklich – really
ziemlich – quite äußerst – extremely
ein bisschen – a bit, überhaupt nicht - not at all

Adjektive	Adjectives
nett	Kind
angenehm	Pleasant
froh/glücklich	Happy
geschwätzig	Chatty
schön	Beautiful
lustig	Funny
niedlich/süß	Cute
hübsch/schön	Pretty
sauber	Clean
perfekt	Perfect
schnell	Fast
reich	Rich
klug	clever
schüchtern	Shy
fleißig	Hard working
traurig	Sad
langweilig	Boring
nervig	Annoying
ernst	Serious
einfach	Easy
schwer	Difficult
streng	Strict
hässlich	Ugly
laut	Noisy
unhöflich	Rude
schrecklich	Horrible/Awful
faul	Lazy
sportlich	Sporty
bereichernd	Enriching
interessant	Interesting
alt	Old
entspannend	Relaxing

Healthy living key verbs	
ins Bett gehen	to go to bed
Lust haben	to fancy, to feel like
laufen	to run
Drogen nehmen	to take drugs
sich betrinken	to get drunk
sich gut/krank fühlen	to feel well/ill
auf Diät sein	to be on a diet
Fit sein	to be fit
vermeiden	to avoid
rauchen	to smoke
versuchen	to try to
aufstehen	to get up
in Form bleiben	to keep fit
sich sorgen	to worry
schmecken/probieren	to try, to taste,
sich fühlen	to feel
überwinden	to overcome
Schmerzen haben	to have a pain (in)
müde sein	to be tired

WW1 Context: 1914 - 1918. Germany, Austria-Hungary, Bulgaria and the Ottoman Empire (the Central Powers) fought against Great Britain, France, Russia, Italy, Romania, Japan and the United States (the Allied Powers). When the war ended, the Central Powers defeated, more than 16 million people, soldiers and civilians, had died.

History – Year 9 Knowledge Organiser Term 2

Who do we remember in WW1?

Key Events

1	**4th August 1914 – Britain** declares war on Germany.
2	**7 August 1914** - Regimental **Sergeant-Major Alhaji Grunshi** of the Gold Coast (today's Ghana) Regiment **fired the first shot for Britain during WWI**.
3	**10 October 1914 –** From the **British colonies;** 1.5 million **Indian** soldiers and 1.3 million **Canadians**, **Australians**, **New Zealanders** and **South Africans** fight on the allied side. **France** also draws on its colonies in **Africa**.
4	**22nd April 1915 –** During the second **Battle of Ypres, Belgium**, German forces first large scale attacking using **chlorine gas**.
5	**25 April 1915 - The Gallipoli campaign**, the Allies attack Germany's allies in the Middle East, the Ottoman Turks.
6	**21 February – 15 December 1916 – The Battle of Verdun** the longest battle in WWI.
7	**1 July 1916 – 18 November 1916 – The Battle of the Somme** was one of the largest conflicts of WWI and the highest number of casualties ever recorded on the first day of battle. First use of tanks.
8	**6 April 1917 –** Following the German U-Boat campaign attacking America ships coming to Britain the **USA** should declare war on Germany.
9	**20 Nov 1917 – 6 Dec 1917 – The Battle of Cambrai** – first time blood is stored near the front line to help casualties and tanks were used successfully.
10	**11th November 1918 –** The end of WW1 and the armistice is signed, bringing the war on the **Western Front** to an end.

Key Skills

Significance	It can be very hard to decide what is **historically significant** because what is important to one person might not be to another. During this enquiry you are going to **five R's** of significance to make your judgements. These are:

R **Remarkable**: An event/person that was remarked on by people at the time or since. *Reported.*

R **Remembered**: People have not forgotten it.

R **Resulted in change**: had consequences for the future *It led to other things happening.*

R **Revealing:** tells us a lot about a person's time.

R **Resonant:** An event/person that has an effect on future generations. *People connect with it today.*

Key Terms

11	Trench	Long, narrow ditches dug into the ground to shield soldiers from the enemy.
12	Barbed wire	Coiled wire with sharp edges set in front of the trench to make it harder for the enemy to attack head on.
13	Trench foot	A foot disease developed due to soldiers standing in water all day.
14	Shell shock	A mental health condition suffered by soldiers during WW1 after experiencing frontline action
15	Propaganda	Information, can be biased, that promotes a political cause/point of view.
16	Conscription	Compulsory enrolment into a countries armed forces. *The draft.*
17	Cenotaph	A monument to someone buried elsewhere, especially one commemorating people who died in a war.
18	Victoria Cross	Britain's highest award for bravery.

Key Skills

As historians we use sources as evidence to learn about the past. To check if a source is useful we use the following steps:

1. **Content:** What does the source say/show?
2. **Nature:** What type of source is it? E.g.. diary/photograph
3. **Origin:** Where has it come from? When was it made? Who made it?
4. **Purpose:** Why was the source made?

Key words

Expression: A collection of numbers and symbols/ letters without an equal sign

Term: A group of symbols/ letters in an expression which is separated by $+$ *and* $-$ signs

Variable/symbols: A quantity that represents an unknown value e.g. x, a, n, y

Expand: To remove brackets from an expression by using multiplication

Factorise: The inverse of expanding brackets, to put an expression back into brackets

Expanding brackets

Expand & Simplify:

$3(x+2)$

×	x	$+2$
3	$3x$	$+6$

$3x+6$

Expand & Simplify:

$10(x-4)$

×	x	-4
10	$10x$	-40

$10x-40$

When expanding brackets you can use the grid method to help you. Remember you are multiplying everything inside the bracket by everything outside the bracket

Expand and simplify:

$2(4a+2b)-2(a+3b)$

$8a + 4b - 2a - 6b$

$6a - 2b$

Expand & Simplify:

$(x+2)(x+3)$

×	x	$+2$
x	x^2	$+2x$
$+3$	$+3x$	$+6$

$x^2+2x+3x+6$

x^2+5x+6

Expand & Simplify:

$(x+2)(x-5)$

×	x	$+2$
x	x^2	$+2x$
-5	$-5x$	-10

$x^2+2x-5x-10$

$x^2-3x-10$

$(x+2)(x+2)$

	x	$+2$
x	x^2	$+2x$
$+2$	$+2x$	$+4$

$= x^2+4x+4$

Simplifying Expressions

$a+a+a=3a$

$4\times d=4d$

$y\times y\times y=y^3$

$7\times e\times f=7ef$

Simplifying expressions (adding/subtracting)

Remember you can only add/subtract like terms

$2a + 3b - a + 4b = a + 7b$

$2a - a = a \qquad +3b + 4b = +7b$

Simplifying expressions (multiplying)

Remember to multiply the numbers and terms separately

$5p\times 3q\times 4p = 60p^2q$

$5\times 3\times 4\times p\times p\times q$

$60 \times p^2 \times q = 60p^2q$

Factorising expressions:

- The opposite (inverse) of expanding
- Answer will include brackets
- Look for common factors (numbers and algebra)
- Always choose the HCF

e.g. 1 $10a+15=5(2a+3)$

10 & 15 both in the 5 times table

$10a = 5\times 2a \qquad 15 = 5\times 3$

e.g. 2 $6x^2-21xy=3x(2x-7y)$

6 & 21 both in the 3 times table

Both terms have an x in them

$6x^2 = 3x\times 2x \qquad 21xy = 3x\times 7y$

$P=\frac{k}{j}$

$P \times j = \frac{k}{j} \times j$

$Pj = k$

The letter j is now isolated, so j is now the subject of the formula.

Rearrange the formula to make a the subject

This means we want to rearrange the formula so it says a =

$b = 5a + 21$

$-21 \quad -21$

$b - 21 = 5a$

$+5 \quad +5$

$\frac{b-21}{5} = a$

Our answer should say ... $a = \frac{b-21}{5}$

Useful Links

https://vle.mathswatch.co.uk/vle/

https://corbettmaths.com/tag/algebra/

https://www.bbc.com/bitesize/topics/z4f3cdm

Percentages

e.g. 31% means $\frac{31}{100}$

Parts per 100

The symbol is %

Example: 25% means 25 per 100 (25% of this box is green)

Percentages of an amount

Always start with the whole (100 %) and use a table use to find the percentage you need

100%	240	
10%	24	100% ÷ 10
5%	12	10% ÷ 2
30%	72	10% x 3
25%	60	5% x 5 or 100% ÷ 4

Increase or Decrease by a Percentage

Find the percentage and **add** or **subtract** it from the **original** amount.

Example: A Skateboard is reduced 25% in price in a sale.
The old price was $120.
Find the new price.

First, find 25% of $120:

25% of $120 is $30

So the **reduction** is $30

Take the reduction from the original price

→ $120 – $30 = $90

The Price of the Skateboard in the sale is **$90**

Reverse Percentage

Find the **correct percentage given in the question**, then work backwards to **find 100%**

Look out for words like '**before**' or '**original**'

A jumper was priced at £48.60 after a 10% reduction. Find its original price.

100% - 10% = 90%

90% = £48.60

1% = £0.54 1% = 90% ÷ 90

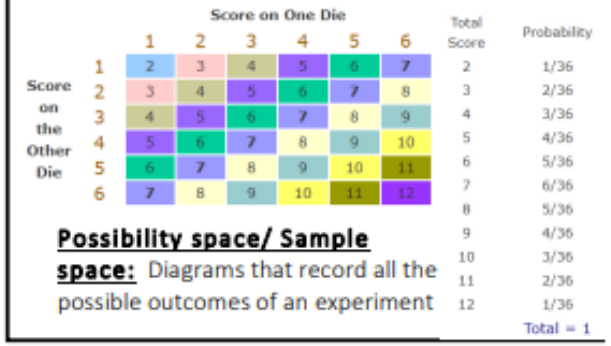
100% = £54 100% = 1% x 100

Probability

Outcome: The result of a trial
Event: One or more outcome of a trial

Impossible: Cannot happen (Probability = 0)
Certain: Must happen (Probability = 1)
Even chance: Equal chance of happening as not happening (Probability = 0.5)

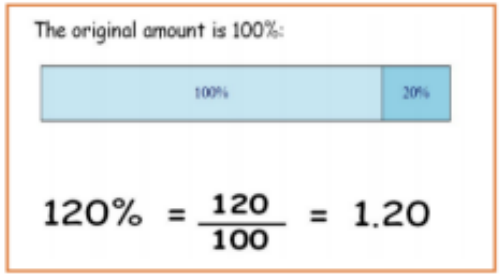
Mutually exclusive: Two events that cannot happen at the same time
Exhaustive: A set of event that includes all possible outcomes (Sum of Probability = 1)



Possibility space/ Sample space: Diagrams that record all the possible outcomes of an experiment

Multipliers

The **number** you **multiply** a quantity by to **increase or decrease** it by a **percentage**.

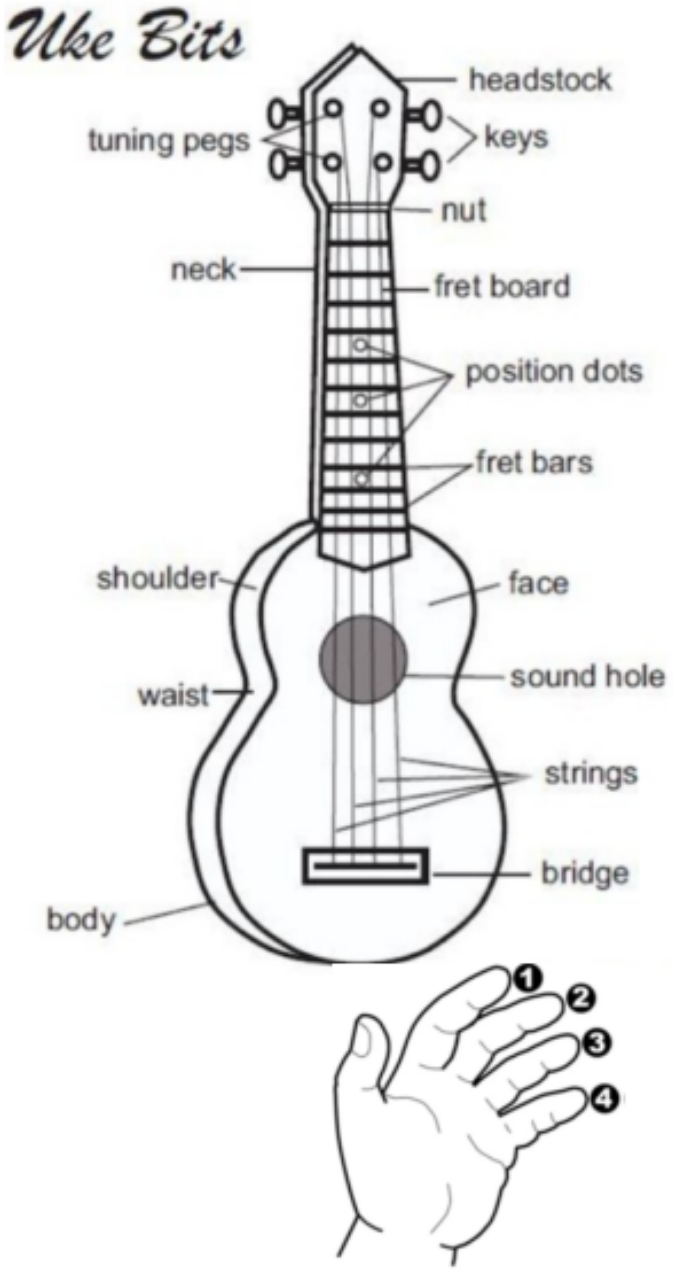


Increase by 40%	140%	x 1.4
Increase by 4%	104%	x 1.04
Decrease by 40%	60%	x 0.6
Decrease by 12%	88%	x 0.88

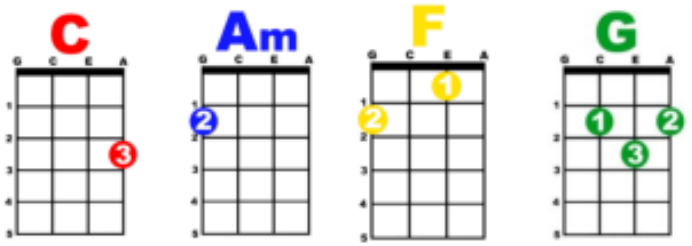
Useful Links: https://vle.mathswatch.co.uk/vle/ https://www.bbc.com/bitesize https://mathsmadeeasy.co.uk/ks3-revision/

Section 1: Key Words	
Articulation	Strumming: brushing fingers over the strings Picking/Plucking: plucking individual strings
Structure	The sections of a piece of music e.g. verse/chorus
Introduction	The section of music before the singing starts
Verse	A part of a song—the lyrics change for each verse but the melody stays the same.
Chorus	A part of a song—the lyrics and melody are repeated in each chorus.
Bridge	A section which links the verse to the chorus
Middle 8	A section in the middle of a song which contrasts the verse and chorus
Instrumentation	The instruments used in a piece of music. In pop music these would include drum kit, guitar, bass and piano
Melody	The main tune (usually sung by the singer)
Chord	Two or more notes played at once
Bass line	The lowest pitched part
Riff	A repeated pattern
Improvisation	Making it up as you go along
Melody and accompaniment	The typical texture used in pop songs
Lyrics	The words in a song

Section 2: Ukulele Diagram and finger positions



Section 3: Ukulele chords



PE Knowledge Organiser

EXERCISE INTENSITY

Key terms

HR: heart rate (RPE x 10)

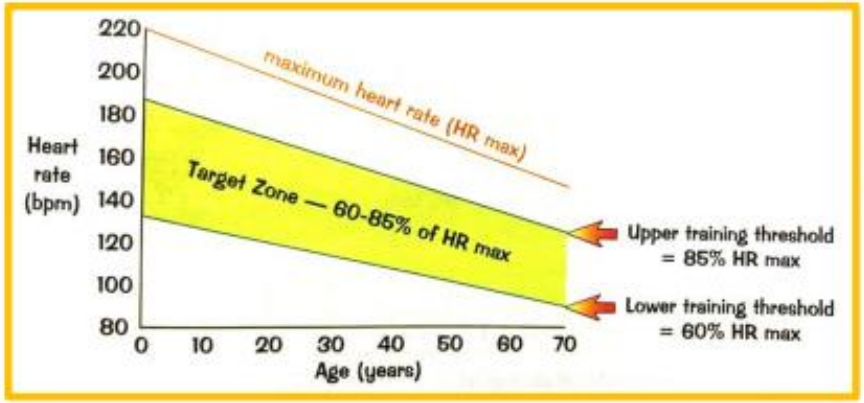
HR max: maximum heart rate (220 – age)

RPE: rating of perceived exertion (Borg 6-20 scale)

There are two ways in which you can determine exercise intensity:

- **Heart rate (HR)**
- **Rating of Perceived Exertion (RPE)**

The recommended training zone for aerobic endurance is 60-85% HR max.



Rating of Perceived Exertion (RPE)

The Borg (6-20) Rating of Perceived Exertion (RPE) Scale **(below)** measures a performer's rate of perceived exertion – how hard they think they are working.

6	20% effort
7	30% effort: very, very light intensity
8	40% effort
9	50% effort: very light intensity
10	55% effort
11	60% effort: fairly light intensity
12	65% effort
13	70% effort: somewhat hard intensity
14	75% effort
15	80% effort: hard intensity
16	85% effort
17	90% effort: very hard intensity
18	95% effort
19	100% effort: very, very hard intensity
20	Exhaustion

RPE and Heart Rate

The number on the RPE scale can be multiplied by 10 to get an estimate of heart rate during training.

HR (bpm) = RPE x 10

If an individual is working at 12 on the RPE scale, their HR could be worked out:

12 x 10 = 120 bpm

How to measure Heart Rate (HR) using pulse

Place index and middle finger on radial artery (wrist). Count the beats for 60 seconds and this is your Heart Rate.

RS

Change Makers: 9:1

	Key concept	Definition
	**1. Activism**	To protest and organise actions (campaign) to bring to bring about political or social change.
	**2. Civil Rights**	The rights that citizens (people) have, such as political and social freedom and equality.
	**3. Civil Disobedience**	To refuse to follow the law if it is unjust (unfair) as a peaceful form of protest.
	**4. Democracy**	"Rule by the people". The system in which civilians vote for who they want to govern the country, the party with the most votes, become out elected leaders.
	**5. Privilege**	An advantage, or unspoken permission granted or available to particular people. (i.e, white privilege)
	**6. Racism**	Prejudice and/or discrimination that is directed against a person or people because of their racial or ethnic group.
	**7. Equality**	The idea that all people, no matter their wealth, gender, sexuality, race, ability or disability should have fair and equal rights.

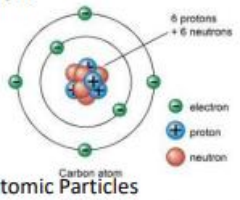
Key info			✓
8	**Ahimsa**	The Hindu, Buddhist and Jain belief in 'non-violence'	
9	**Pacifism**	The belief that war and violence can never be justified and that all disputes should be settled in a different way.	
10	**Human rights**	Human rights are the rights that all human beings have no matter who they are. These include; the right to life, freedom from slavery and torture, freedom of opinion and expression, the right to work and to education as well as many more.	
11	**Nobel Peace Prize**	The **Nobel Prize** is a set of annual international awards given by Swedish and Norwegian institutions to recognise the academic, cultural, or scientific achievements of people.	
12	**Boycott**	To refuse to buy a product or take part in an activity as a way of expressing your disproval (that you don't agree with what that person/company are doing).	
13	**Racial Segregation**	The action of separating people of different race, as well as the places they are allowed to be, i.e, different toilets, churches, schools etc.	
14	**Theocracy**	Where a God is recognized as the supreme ruler of a country who gives divine instructions to humans who act on His behalf.	
15	**Shariah Law**	Shariah law is a religious law. It is a combination of the key beliefs of Islam, particularly from the Qur'an (The Muslim holy book, believed to be the words of God) and the Hadith (teachings of the most important prophet, Muhammad, PBUH).	
16	**Persecution**	To be treated unfairly and/or very badly; especially because of race or political or religious beliefs.	
17	**Islamophobia**	A fear and/or hatred of Muslims and the religion Islam.	
18	**Revolution**	To take over government through political activism/force to create a new government or social order. To do so in favour or a new system.	
19	**Feminism**	The belief that men and women should have equal rights and opportunities.	
20	**Speciesism**	To assume that humans are superior (more important) than animals. This often leads to the exploitation of animals.	
21	**Animal Liberation**	To free animals from exploitation and cruel treatment by humans	
22	**Theocracy**	Where a God is recognized as the supreme ruler of a country who gives divine instructions to humans who act on His behalf.	
23	**Climate Emergency**	A situation, in some cases declared by a government, in which special measures must be taken to halt environmental damage caused by climate change.	

Science - Chemistry

EDEXCEL 9-1 Combined Science | Year 9 **Chemistry Topic 1 – Key Concepts** | Required Knowledge **CGP F & H tier: pages 79-81**

Atom Structure

Diagram

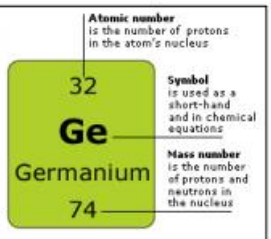


Subatomic Particles

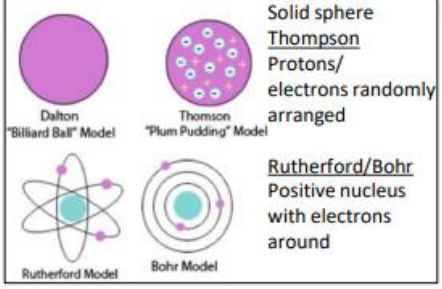
Subatomic particle	Location	Mass	Charge
Proton	Nucleus	1	+1
Neutron	Nucleus	1	No charge
Electron	Shells	0 (negligible)	-1

Atom Symbols

Bigger number is the mass number.
To find neutrons subtract the smaller number



History of Atom



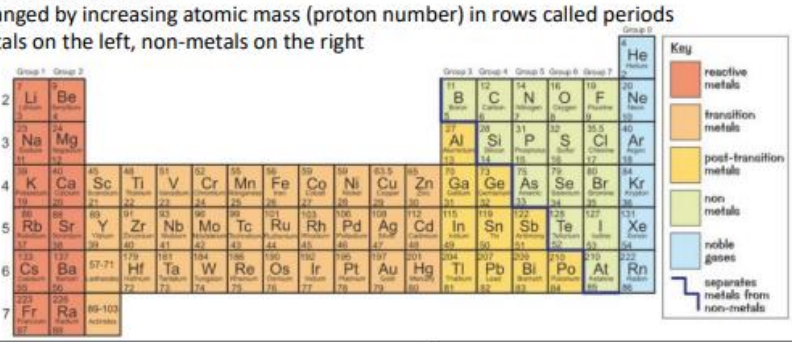
Dalton
Solid sphere

Thompson
Protons/ electrons randomly arranged

Rutherford/Bohr
Positive nucleus with electrons around

Modern Periodic Table

- Arranged by increasing atomic mass (proton number) in rows called periods
- Metals on the left, non-metals on the right

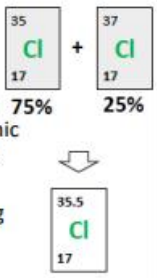


Isotopes

- Elements with the same number of protons but different numbers of neutrons
- This explains why relative atomic mass (Mr) isn't always a whole number

H - e.g. M_r of Cl is calculated using The abundance of each of the Atomic masses of the isotope

(35 x 75/100) + (37 x 25/100) = 35.5

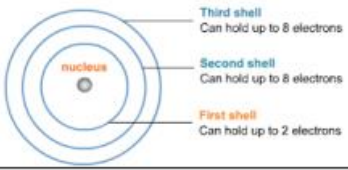


History of Periodic table

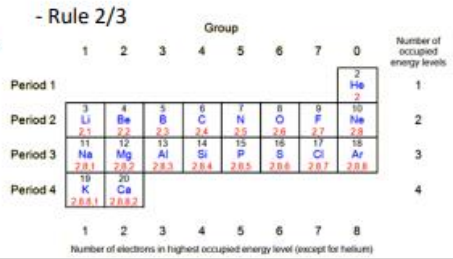
- Dimitri Mendeleev was the first to publish an organised table of elements
- He arranged by relative atomic mass
- But he also left gaps so that elements with similar properties were in the same group
- Using the gaps he was able to predict elements that had not been discovered yet

Electronic Configuration

- Using the rules to draw the first 20 elements
- Rule 1



- Rule 2/3



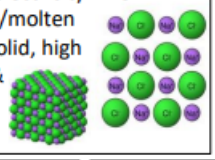
EDEXCEL 9-1 Combined Science | Year 9 **Chemistry Topic 1 – Key Concepts** | Required Knowledge **CGP F & H tier: pages 82-89**

Ions

- Atoms are more stable with full outer electron shells
- Metals lose electrons resulting in a positive ion. E.g. sodium in group 1 → Na^+ ion and calcium in group 2 → Ca^{2+} ion
- Non-metals gain electrons resulting in a negative ion, e.g. oxygen in group 6 → O^{2-} ion and chlorine in group 7 → Cl^- ion

Ionic Compounds

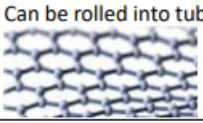
- Positive and negative ions arrange in a regular lattice
- This explains properties including ability to dissolve, conduct electricity when dissolved/molten but not solid, high melting & boiling points

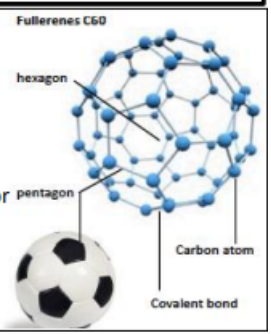


Fullerenes, Allotropes

<u>C60</u>
Strong, weak intermolecular forces (like graphite)
Can be used as lubricants

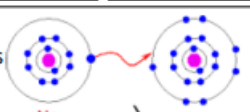
<u>Graphene</u>
Strong, light, good electrical conductor
Can be rolled into tubes

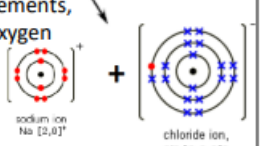


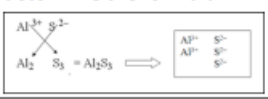


Ionic Bonding

- Positive and negative ions are attracted and form a compound
- Compound name –ide with 2 elements, -ate with 3 elements including oxygen
- Use the crossover method to determine the formula

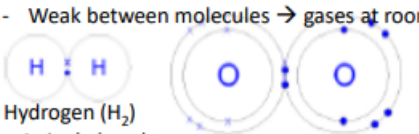






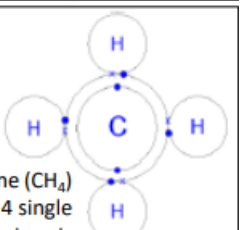
Covalent Bonding

- Electrons are shared to complete the outer shell
- Simple molecular, strong bonds between atoms
- Weak between molecules → gases at room temp

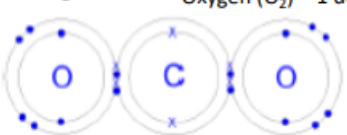


Hydrogen (H_2) – 1 single bond

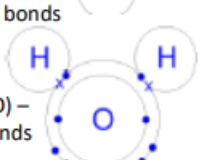
Oxygen (O_2) – 1 double bond



Methane (CH_4) – 4 single bonds



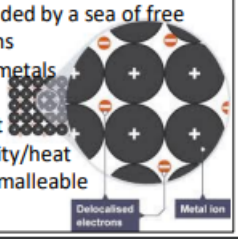
Carbon dioxide (CO_2) – 2 double bonds



Water (H_2O) – 2 single bonds

Metallic Bonding

- Metal atoms lose electrons to become positive ions surrounded by a sea of free electrons
- Allows metals to conduct electricity/heat and be malleable

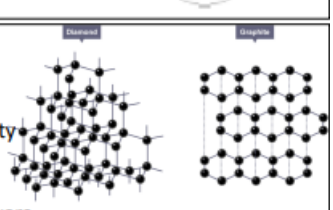


Bonding Models

Ball and stick models are limited: they don't show electrons and appear to have large gaps between atoms. Dot and cross diagrams are limited: they are 2D and don't show bond angles.

Giant Covalent Structures, Allotropes

- Bonding between many non-metal atoms
- <u>Diamond</u>, each C atom forms 4 bonds
- Rigid, strong and doesn't conduct electricity
- Used for cutting tools
- <u>Graphite</u>, each C forms 3 bonds leaving a free electron and weak bonds between layers
- Soft, good electrical conductor
- Used as a lubricant

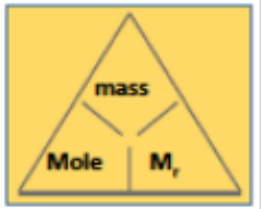


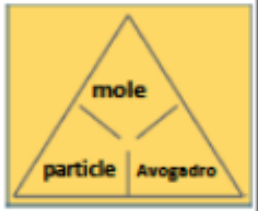
Conservation of mass

- In a closed system the total mass of the reaction before and after doesn't change
- This is because no atoms are destroyed or created, they are just rearranged
- If mass goes up it's because one of the reactants has joined from the air
- If mass goes down it's because a gas has been released

H - Moles

- A mole is an amount of particles equal to Avogadro's constant (6.02×10^{23})
- One mole of any substance will have a mass in grams equal to the relative particle mass (A_r or M_r) for the substance
- The number of particles of substance in a given mass of that substance can be found by using the 1st equation to find the number of moles and the 2nd equation to find the number of particles





Relative Masses (M_r)

- To find M_r add the relative atomic mass (A_r) of the elements making up a compound

H_2O

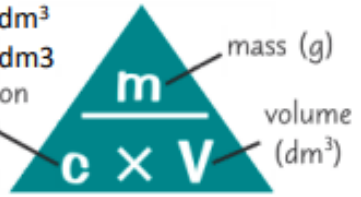
H=1 O=16

(1x2)+16=18

Calculating Concentration

- The more solute dissolved in in a given volume, the more crowded the particles are = more concentrated
- Volume must be in g/dm^3
- 1 gram dissolved in 1 dm3 = 1 g/dm^3 concentration

1 dm^3 = 1 litre = 1000 cm^3



Calculating Reacting Masses

- In reactions there will be a limiting reactant which is used up, other reactants are in excess

1. Write out the balanced equation
2. Work out Mr of the reactant and product you're interested in
3. Divide both by the Mr of the limiting reactant
4. Multiply both by the given mass of the limiting reactant

- To find the mass of limiting reactant needed to make a certain mass of product

1. Write out the balanced equation
2. Work out the Mr of the reactant and product you're interested in
3. Divide both by the Mr of the product
4. Multiply both by the given mass of the product

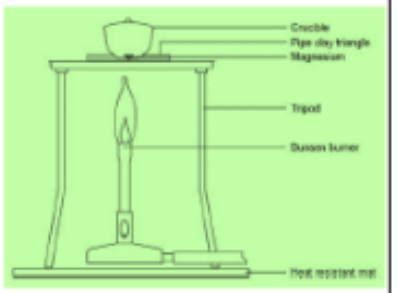
Empirical Formulae

- Tells you the smallest ratio of atoms in a compound
- To find it divide the molecular formula by the highest common multiple

Compound	Molecular Formula	Empirical Formula
Butane	C_4H_{10}	C_2H_5
Octane	C_8H_{18}	C_4H_9

- Use empirical formula along with M_r to find molecular formula, divide Mr of the compound by the M_r of the empirical formula, then multiply everything in the empirical formula by 2

Experimental Technique



If 9.6g of Mg reacts with 6.4g of O:

9.6 / 24 (A_r Magnesium) = 0.4

6.4 / 16 (A_r Oxygen) = 0.4

Ratio 0.4 : 0.4 or 1:1 (MgO)

H - Balancing Equations with Reacting Masses

1. Divide mass of each substance by Mr → moles
2. Divide all moles by the smallest number of moles
3. Multiply by an amount to make them all whole numbers
4. Write a balanced equation using these numbers

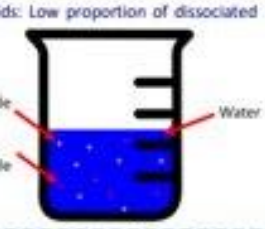
Science – Chemistry

EDEXCEL 9-1 Combined Science | **Chemistry Topic 3 – Chemical Changes** | Required Knowledge — **CGP F & H tier: pages 104 - 108**

Acids (p):
- **Source of hydrogen ions (H^+) when in solution.**
- pH 1 – pH 6 (neutral = pH 7)
- Strong acids are corrosive and can be harmful to humans.
- Examples: Vinegar; citrus fruits; bee stings.

Alkalis & bases (p): pH 8 – pH 14.
- **Alkalis are sources of hydroxide ions (OH^-) when in solution.**
- Bases are any substances that react with acids to form salt and water only.
- All alkalis are soluble bases.
- Examples: Wasp stings; bleach; indigestion tablets; toothpaste.

Acid strength (p):
- The pH scale shows the strength of an acid (or alkali).
- The strength of an acid is determined by the proportion of ions which dissociate (split) in solution, e.g. $HCl \rightarrow H^+ + Cl^-$.
- Strong acids: High proportion of dissociated ions.
- Weak acids: Low proportion of dissociated ions.

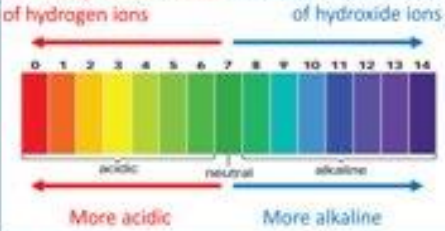


Indicators (p): Different chemicals can be used to test the pH of solutions.

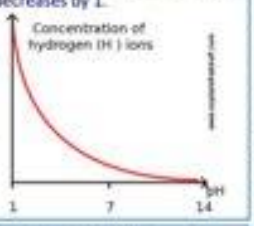
pH scale (p): A measure of the proportion of hydrogen ions or hydroxide ions in a solution.

Increasing concentration of hydrogen ions — Increasing concentration of hydroxide ions

As hydrogen ion concentration increases 10x, pH of the solution decreases by 1.

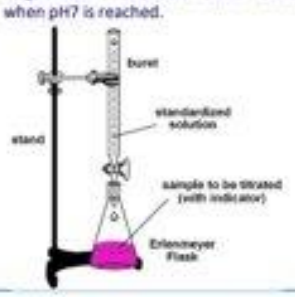


More acidic — More alkaline



Acid concentration (p):
- Acids are sources of hydrogen ions when in solution.
- The concentration of the solution is determined by the amount of acid dissolved in a volume of solvent.
- Measured in moles (e.g. 1M, 2M).
- Concentrated acid: Large amount of acid per litre of solvent.
- Dilute acid: Small amount of acid per litre of solvent.

Soluble salts & titration (p):
- When a neutralisation reaction produces a soluble salt, it can be extracted by crystallization (evaporating the solvent).
- To create a neutral product (pH7), exactly the right amount of acid and alkali must be used.
- **Titration** measures exact amounts of acid added to an alkali.
- Single-colour indicators show clearly when pH7 is reached.



Neutralisation (p): Chemical reaction between acid (pH1-6) and alkali (pH8-14) produces a salt and water (neutral at pH7).
- Neutralisation happens because of reactions due to ionic charges of atoms.
- Acids and alkalis dissociate (split) into ions (charged atoms) in solution.
  - Hydrochloric acid: $HCl \rightarrow H^+ + Cl^-$
  - Sodium hydroxide (alkali): $NaOH \rightarrow Na^+ + OH^-$
- The hydrogen and hydroxide ions react to form water: $H^+ + OH^- \rightarrow H_2O$
- The sodium and chlorine atoms react to form sodium chloride (salt): $Na^+ + Cl^- \rightarrow NaCl$

Acids & metals (p): **Acid + metal → salt + hydrogen**
- Evidence: Effervescence, or the production of hydrogen bubbles. Testing with a lit splint should produce a squeaky pop.
- Strength of reaction depends on metal's place in reactivity series.
- Magnesium + sulfuric acid → magnesium sulfate + hydrogen
- $Mg(s) + H_2SO_4(aq) \rightarrow MgSO_4(aq) + H_2(g)$

Acids & carbonates (p): **Acid + metal carbonate → salt + water + carbon dioxide**
- Evidence: Bubbling the carbon dioxide through limewater will turn the limewater cloudy.
- E.g.: Copper carbonate + sulfuric acid → copper sulfate + water + carbon dioxide
- $CuCO_3(s) + H_2SO_4(aq) \rightarrow CuSO_4(aq) + H_2O(l) + CO_2(g)$

EDEXCEL 9-1 Combined Science | **Chemistry Topic 3 – Chemical Changes** | Required Knowledge — **CGP F & H tier: pages 109 -112**

Insoluble salts & precipitates (p):
- Some salts produced by an acid-alkali reaction are not soluble – they do not dissolve in any solvents.
- These are called precipitation reactions, as they cause precipitate to form.
- Precipitate is insoluble particles of solid which form in the solvent.
- Preparation of insoluble salts:
  1. Mix the two solutions;
  2. Filter the mixture to remove most of the precipitate;
  3. Rinse the beaker with distilled water and pass this through the filter to retain any remaining precipitate.

Soluble	Insoluble
All nitrates	None
Most sulfates	Lead sulfate, barium sulfate and calcium sulfate
Most chlorides, bromides and iodides	Silver chloride, silver bromide, silver iodide, lead chloride, lead bromide, lead iodide
Sodium carbonate, potassium carbonate, ammonium carbonate	Most other carbonates
Sodium hydroxide, potassium hydroxide, ammonium hydroxide	Most other hydroxides

State symbol **(s)** indicates a precipitate. Example: reaction of limewater with carbon dioxide:

Calcium hydroxide (limewater) + carbon dioxide → calcium carbonate + water

$Ca(OH)_2(aq) + CO_2(g) \rightarrow CaCO_3(s) + H_2O(l)$

H - Ionic equations (p):
- All salts are ionically bonded.
- Ionic equations show only the ions which change.
- For example:
  - Lead nitrate + sodium chloride → lead chloride + sodium nitrate
- Full equation: $Pb(NO_3)_2(aq) + 2NaCl(aq) \rightarrow PbCl_2(s) + 2NaNO_3(aq)$
- **Ionic equation: $Pb^{2+}(aq) + 2Cl^- \rightarrow PbCl_2(s)$**
- All ions which do not change are called **spectator ions**.

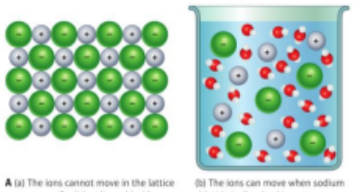
Acids & metal oxides / metal hydroxides (p):
- **Metal oxide + acid → salt + water**
- E.g.: Copper (II) oxide + hydrochloric acid → copper chloride + water

$CuO + 2HCl \rightarrow CuCl_2 + H_2O$

- Metal hydroxide + acid → salt + water
- E.g.: Calcium hydroxide + nitric acid → calcium nitrate + water

$Ca(OH)_2 + 2HNO_3 \rightarrow Ca(NO_3)_2 + 2H_2O$

Ions & electrolytes (p):
- Atoms which have lost or gained electrons.
- Charged (positive or negative).
- Ionic solids dissolve into free ions in water.
- Any liquid with free ions in solution is called an **electrolyte**.
- Electrolytes can conduct electricity.



A (a) The ions cannot move in the lattice structure of solid sodium chloride. (b) The ions can move when sodium chloride is dissolved in water.

Electrolysis (p):
- Means of separating out ionically-bonded compounds.
- Negative ions collect at the anode (positive electrode).
- Positive ions collect at the cathode (negative electrode).

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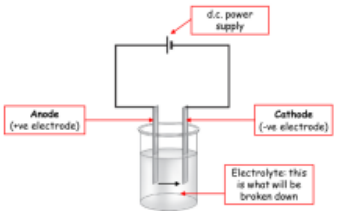
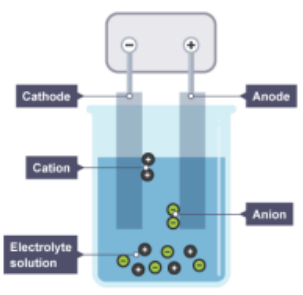


Negative ion	Element given off at anode
Chloride, Cl^-	Chlorine, Cl_2
Bromide, Br^-	Bromine, Br_2
Iodide, I^-	Iodine, I_2
Sulfate, SO_4^{2-}	Oxygen, O_2

H – Reactions at electrodes (p):
- **OIL RIG**: **O**xidation **I**s **L**oss, **R**eduction **I**s **G**ain.
- At the anode, negative ions lose electrons (oxidation).
- At the cathode, positive ions gain electrons (reduction).
- Example:
  - Zinc chloride electrolyte
  - Cathode reaction: $Zn^{2+} + 2e^- \rightarrow Zn$
  - Anode reaction: $2Cl^- \rightarrow Cl_2 + 2e^-$

Naming salts (p):

Acid	*Salt formed*
Hydrochloric Acid →	Chloride
Sulfuric Acid →	Sulfate
Nitric Acid →	Nitrate



$H_2O \rightleftharpoons H^+ + OH^-$

State symbols (p):
- In chemical equations, state symbols can be included after every chemical to show the state (solid, liquid, gas) of the chemical.
- **(s)** = solid
- **(l)** = liquid
- **(g)** = gas
- **(aq)** = in solution / dissolved.

Science – Chemistry

EDEXCEL 9-1 Combined Science| **Chemistry Topic 4 – Extracting Metals and Equilibria**| Required Knowledge **CGP F & H tier: pages 114 - 117**

Oxidisation (Pg 114)
- A reaction involving oxygen.
- **Oxidisation** is the addition of oxygen, **reduction** is the loss of oxygen.

E.g. $Fe_2O_3 + 3CO \rightarrow 2Fe + 3CO_2$

- Iron oxide is reduced to iron (as oxygen is removed).
- Carbon monoxide is oxidised to carbon dioxide (as oxygen is added).

Reactivity (Pg 114)
- Shows how easily metals are oxidised.
- A reactivity series shows metals in order of reactivity.

The Reactivity Series		
Potassium	K	
Sodium	Na	
Calcium	Ca	
Magnesium	Mg	
Aluminium	Al	
Carbon	C	
Zinc	Zn	
Iron	Fe	
Hydrogen	H	
Copper	Cu	
Silver	Ag	
Gold	Au	

least resistant to oxidation ↑ most reactive; most resistant to oxidation ↓ least reactive

- Also a measurement of saying how easily a metal atom gives up electrons to become an ion.
- More reactive = gives up electrons more easily.

Oxidisation & reduction (Pg 116)
- **Oxidisation** is also the **loss** of **electrons**.
- **Reduction** is the **gain** of **electrons**.

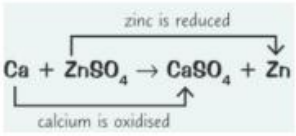
OILRIG

When dealing with electrons: Oxidation Is Loss, Reduction Is Gain.

Metal reactions (Pg 115)
- Metals with different reactivity react to acids and water in different ways:

Metal	Reaction with water	Reaction with dilute acid	Tendency of metal atoms to form cations
potassium	react with cold water to form hydrogen and a metal hydroxide	react violently	increasing ability of metal atoms to form positive ions
sodium			
calcium		react to form hydrogen and a salt solution	
magnesium	react very slowly, if at all, with cold water but react with steam to form hydrogen and a metal oxide		
aluminium			
zinc			
iron			
copper	do not react with cold water or steam	do not react	
silver			
gold			

Displacement reactions (Pg 116)
- Metals differently with metals salts, depending on the reactivity of the metals.
- The more reactive element takes the place of the less reactive element.
- The more reactive metal loses electrons (is oxidised) while the more reactive metals gains electrons (is reduced).
- Remember OILRIG.



- Calcium is more reactive than zinc, and takes it's place in the metals salt to become calcium sulfate leaving pure zinc on it's own.

Ore (Pg 117)
- A rock containing enough metal in in to make it **economically worthwhile** to extract the metal.

Metal extraction (Pg 117)
- Unreactive metals, e.g. gold, removed from the Earth's crust in pure form.
- More reactive metals form metals compounds, e.g. bauxite (aluminium oxide) the source of aluminium.
- The method for extracting metals from ores depends on the reactivity of the metal.

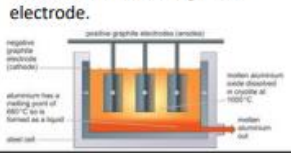
Metal	Method of extraction
potassium	electrolysis of a molten compound
sodium	
calcium	
magnesium	
aluminium	
(carbon)	
zinc	heat an ore with carbon
iron	
copper	
silver	found as the uncombined element
gold	

increasing reactivity ↑

Method 1: Reduction with carbon (Pg 117)
- The ore is reduced, the carbon replacing the less reactive metals, leaving pure metals behind.
- Iron oxide (haematite) is the source of pure iron.

$2Fe_2O_3$ + 3C → 4Fe + $3CO_2$
iron oxide + carbon → iron + carbon dioxide

Method 2: Electrolysis (Pg 118)
- The ore is melted and an electrical current passed through it. The pure metal forms on the negative electrode.



Method 3: Biological methods (Pg 118)
- **Bioleaching** uses bacteria grown on copper ore which produce a solution containing the metals ions.
- The copper is extracted by reduction with iron and purified by electrolysis.
- **Phytoextraction** uses plants that grow and absorb the metal compounds. When burned they form an ash which the metal can be extracted from.
- Advantages/disadvantages:

Process	Advantages	Disadvantages
both bioleaching and phytoextraction	no harmful gases (e.g. sulfur dioxide) are produced; causes less damage to the landscape than mining; conserves supplies of higher grade ores	very slow
bioleaching	does not require high temperatures	toxic substances and sulfuric acid can be produced by the process, and damage the environment
phytoextraction	can extract metals from contaminated soils	more expensive than mining some ores; growing plants is dependent on weather conditions

Recycling (Pg 119)
- Reusing materials already extracted from the Earth is cheaper and has environmental benefits.
- Recycling aluminium cans is 95% more energy efficient per tonne over extracting it from ore.
- Prevents environmental damage from further mining
- Prevents landfill of cans.

EDEXCEL 9-1 Combined Science| **Chemistry Topic 4 – Extracting Metals and Equilibria**| Required Knowledge **CGP F & H tier: pages 118 -120**

Life cycle assessments
- New planned products are assessed using and LCA.
- Each aspect is considered to see if it impacts the environment too significantly.

Example: **Car B** is the most logical choice to manufacture based on the statistics considered...

Car	CO_2 emissions (tonnes)	Waste solid produced (kg)	Water used (m^3)	Expected lifespan of product (years)
A	17	10 720	8.2	11
B	21	5900	6.0	17
C	34	15 010	9.5	12

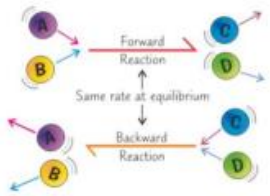
- Least solid waste and water used.
- Second best for CO2 emissions
- Longest lifespan

Reversible reactions
- Reactions where products can react to form the original reactants.
- Reactions go **both** ways!

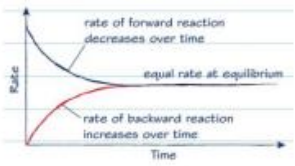
$A + B \rightleftharpoons C + D$

- Note the arrow points in both directions, showing this is a reversible reaction.

Dynamic Equilibrium
- In a closed system, reversible reactions reach **dynamic equilibrium**.
- This means the rate of the forward reaction is equal to the rate of the backwards reaction.

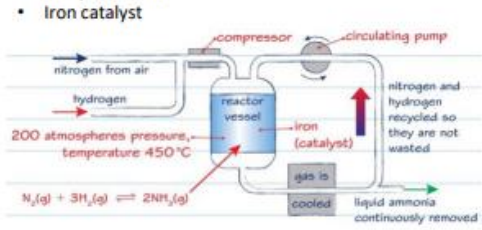


- The dynamic bit means that these reactions do NOT stop, products are formed from reactants and reactants react to form products...it just means the concentrations of the reactants and products does not change.



Factors effecting the equilibrium position
- Different factors can be used to shift the position of the equilibrium point...either to produce more product or more reactants.
- The factors are **temperature**, **pressure** (for reactions involving gasses) and **concentration** (of the reactants and products).

The Haber process
- Reaction between hydrogen and nitrogen to form ammonia.
- You need to remember the conditions for the process...
  - Pressure of 200 atmospheres
  - Temp of 450 °C
  - Iron catalyst



Le Chatelier's Principle
- The principle states, any change to either temp, pressure or concentration in a reversible reaction and the equilibrium position will move to counteract that change.
- This means we can adjust these factors to get more product or more reactant, if that's what is needed.
- Details of how each change effects the reaction can be found below, using the Haber process as an example.

TEMPERATURE All reactions are exothermic in one direction and endothermic in the other (see page 134).

1) If you decrease the temperature, the equilibrium will move in the exothermic direction to produce more heat.
2) If you increase the temperature, the equilibrium will move in the endothermic direction to absorb the extra heat.

For example $N_2 + 3H_2 \rightleftharpoons 2NH_3$. This reaction is exothermic in the forward direction. If you decrease the temperature, the equilibrium will shift to the right (so you'll make more product).

PRESSURE Changing this only affects equilibria involving gases.

1) If you increase the pressure, the equilibrium will move towards the side that has fewer moles of gas to reduce pressure.
2) If you decrease the pressure, the equilibrium will move towards the side that has more moles of gas to increase pressure.

For example $N_2 + 3H_2 \rightleftharpoons 2NH_3$. This reaction has 4 moles of gas on the left and 2 on the right. If you increase the pressure, the equilibrium will shift to the right (so you'll make more product).

CONCENTRATION

1) If you increase the concentration of the reactants, the equilibrium will move to the right to use up the reactants (making more products).
2) If you increase the concentration of the products, the equilibrium will move to the left to use up the products (making more reactants).
3) Decreasing the concentration will have the opposite effect.

For example $N_2 + 3H_2 \rightleftharpoons 2NH_3$. If you increase the concentration of N_2 or H_2, the equilibrium will shift to the right to use up the extra reactants (so you'll make more product).

9.9 Spanish - Technology and Media

Technology verb infinitives	
borrar	to delete, erase
cargar	to load
chatear	to chat online
colgar fotos	to post photos
comunicarse	to communicate
contestar	to answer
crear	to create
dar	to give
descargar	to download
enviar	to send
funcionar	to work, to function
guardar	to save
hablar	to speak, to talk
mandar	to send
navegar la red	to surf the internet
poder	to be able to
recibir	to receive
sacar fotos	to take photos
transmitir	to stream
usar	to use
utilizar	to use

Technology nouns	
el archivo	file
el correo basura	spam, junk mail
el correo electrónico	email
el disco duro	hard drive
el juego	game
el mensaje de texto	text message
el móvil	mobile/smartphone
el ordenador	computer
el ordenador portátil	laptop
el videojuego	video game
la canción	song
la pantalla	screen
la red	internet
la red social	social network
la revista (digital)	(digital) magazine
la sala de chat	chat room
la tableta	tablet
la tecnología	technology

Technology adjectives	
aburrido/a	boring
antiguo/a	old
animado/a	exciting
confuso/a	confusing
corto/a	short
de moda	fashionable
despacio/a	slow
entretenido/a	entertaining
escalofriante	scary
estimulante	stimulating
informativo/a	informative
interesante	interesting
inútil	useless
largo/a	long
lento/a	slow
peligroso/a	dangerous
práctico/a	practical
rápido/a	fast
ridículo/a	ridiculous
roto/a	broken
útil	useful

Tv Genres	
las comedias	comedies
los concursos	quiz shows
los documentales	documentaries
las noticias	the news
los programas de deporte	sports programmes
las policiacas	police shows
las telenovelas	soap operas

Haber (perfect tense)	to have
he	I have
has	you have
ha	he/she/it/has
hemos	we have
habéis	you all have
han	they have

Film genres	
las películas de acción	action films
las películas de amor	romantic films
las películas de ciencia ficción	sci-fi films
las películas de drama	dramatic films
las películas de suspenso	suspense films
las películas de terror	horror films
las películas de thriller	thriller films

9.9 Spanish Technology and Media Knowledge Organiser

3 time frames
Infinitives
Time phrases and connectives
Negative constructions
Opinions and justifications
Comparatives and superlatives

Comparatives – to express more or less than
… es más…adjective…que - is more…adjective…than
… es menos …adjective ….que - is less…adjective… than
… es tan…adjective….como – is as…adjective…as
For example:
Es **más** *grande* ***que*** *su hermano. (He is taller (more tall) than his brother.))*
Esta casa es ***menos*** *grande* ***que*** *nuestra casa. (This house is smaller (less big) than our house.))*
Este perro es ***tan*** *grande* ***como*** *mi gato. (This dog is as big as my cat).*

Make a Spanish comparison from good to better or from bad to worse:
Like in English the words for bad and good are irregular . Good > better (bueno > **mejor**) and bad>worse (malo > **peor**).
For example:
Esta pizza es **mejor que** la otra. (This pizza is better than that other one.)
La gripe es **peor que** un resfriado. (Flu is worse than a cold)

**Notice that the adjective always agrees with the first noun*

Superlatives – to express the biggest, the most interesting etc…
… est el/la/los/las más + adjective – is the most + adjective
….est el/la/los/las menos + adjective - is the least + adjective
For example:
La más *inteligente de la clase (the most intelligent in the class)*
El menos *grande de la familia (the shortest (least tall) in the family*

Adjectives describe nouns e.g. a **blue** phone.
In Spanish, adjectives normally go after the words they are describing e.g. un móvil azul (a blue mobile phone) and they have to agree with the noun they are describing.
In Spanish, adjectives must agree with the noun (or pronoun) they describe in gender and in number. This means that if the noun an adjective describes is feminine, the adjective must be feminine e.g. una televisión negra (a black televisión). If that same noun is also plural, the adjective will be feminine AND plural as well e.g. las televisiónes negras (black televisions).

Opinion phrases	
En mi opinión	In my opinion
Pienso que	I think that
Creo que	I believe that
Diría que	I would say that
Personalmente	Personally
A mi juicio	In my opinion
Considero que	I consider that
Desde mi punto de vista	From my point of view
Lo / Las encuentro	I find it / them

Connectives	
y	and
pero	but
porque	because
sin embargo	however
además	furthermore
por ejemplo	for example
luego	then
finalmente	finally
no obstante	nevertheless

Time phrases	
Hoy	Today
Normalmente	Normally
De vez en cuando	Sometimes
El fin de semana	On the weekend
(Dos) veces por semana	(Twice) a week
A menudo	Often
Siempre	Always
Ayer	Yesterday
Anteayer	The day before yesterday
La semana pasada	Last week
El fin de semana pasado	Last weekend
El mes/año pasado	Last month/year
Anoche	Last night
Hace (dos días/años)	(Two days/years) ago
Mañana	Tomorrow
En el futuro	In the future
El fin de semana próximo	Next weekend
La semana próxima	Next week
El año próximo	Next year

9.10 Leisure and heathy living vocabulary list

Las actividades	activities
ir	to go
jugar	to play
comer	to eat
visitar	to visit
hacer	to do
bailar	to dance
beber	to drink
ver	to watch
escuchar	to listen
leer	to read
comprar	to buy
terminar	to finish
mirar	to see
escribir	to write
dormir	to sleep
nadar	to swim
quedar	to meet
viajar	to travel
cantar	to sing
Mandar SMS	to text
contactar	to contact
Llamar	to call
cocinar	to cook
descargar	to download
trabajar	to work
ayudar	to help
mediar	to meditate
relajar	to relax
descansar	to rest

Sitios	Places
En casa	At home
En la casa de mi amigo	At my friend's house
En la casa de mi padre	At my dad's
En la casa de mi madre	At my mum's
En la casa de mis abuelos	At my grand-parents'
En mi dormitorio	In my room
En el salón	In the living room
En el jardín	In the garden
En mi barrio	In my neighbourhood
En Inglaterra	In England
En el extranjero	Abroad
En el pueblo	In town
En el campo	In the countryside
En las montañas	In the mountains
En la costa	By the seaside
La gente	**People**
Con	With
Mis amigos	My friends
Mi hermano	My brother
Mi hermana	My sister
Mis padres	My parents
Mi familia	My family
Solo/a	Alone

Intensifiers

muy – very	demasiado – too
tan– so	realmente – really
bastante – quite	extremamente – extremely
Un poco – a bit	nada - not at all

Adjetivos	Adjectives
Amable	Kind
Agradable	Pleasant
Contento/a	Happy
Hablador/a	Chatty
Bonito/a	Beautiful
Divertido/a	Fun
Mono/a	Cute
Guapo/a	Pretty
Limpio/a	Clean
Perfecto/a	Perfect
Rapido/a	Fast
Rico/a	Rich
Sabio/a	Wise
Timido/a	Shy
Trabajador/a	Hard working
Triste	Sad
Aburrido/a	Boring
Molesto/a	Annoying
Serio/a	Serious
Fácil	Easy
Difficil	Difficult
Estricto/a	Strict
Feo/a	Ugly
Ruidoso/a	Noisy
Maleducado/a	Rude
Horrible	Horrible/Awful
Vago/a	Lazy
Glotón	Greedy
Deportivo/a	Sporty
Enriquzedor/a	Enriching
Interesante	Interesting
Viejo/a	Old
Relajante	Relaxing

Healthy living key verbs	
acostarse	to go to bed
apetecer	to fancy, to feel like
conseguir (un trabajo)	to get (a job)
correr	to run
drogarse	to take drugs
emborracharse	to get drunk
encontrarse bien/mal	to feel well/ill
estar a dieta	to be on a diet
estar en forma	to be fit
evitar	to avoid
fumar	to smoke
intentar (+ infinitive)	to try to
levantarse	to get up
mantenerse en forma	to keep fit
preocupar	to worry
probar	to try, to taste,
sentirse	to feel
superar	to overcome
tener dolor (de)	to have a pain (in)
tener sueño	to feel sleepy

Cabot Learning Federation

Spanish

9.10 Leisure and heathy living

3 time frames
Infinitives
Time phrases

opinions
justifications
describing and comparing

Verbs and the present tense in Spanish

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the ***infinitive*** (comer, beber, jugar, visitar, vivir, ir etc.). The infinitive ends in **–ar**, **-er** or **–ir.**

Forming the present tense in Spanish

Take off the last 2 letters of the infinitive (**–ar**, **-er** or **–ir)** and add the following endings depending on the pronoun:
*Important! There are some key irregulars to learn which don't follow this pattern – ir (as shown here), ser, tener and hacer are really important!

	AR verb	ER verb	IR verb
yo (I)	-o	-o	-o
tu (you)	-as	-es	-es
él/ella (he/she)	-a	-e	-e
nosotros/as (we)	-amos	-emos	-imos
vosotros/as (you all)	-áis	-éis	- ís
ellos/ellas (they)	-an	-en	-en

Verbs and the near future tense in Spanish

You can talk about the future by using the **near future** tense.
Use part of the verb IR + a + the infinitive to say what you are **going** to do.

Este tarde **voy a jugar** al tenis. *This evening I am going to play tennis.*
Mañana Paul **va a hacer** un pastel. *Tomorrow Paul is going to make a cake.*

IR (to go)	
voy	I am going
vas	You are going
va	He /she/one is going
vamos	We are going
vais	You (lot) are going
Van	They are going

Verbs and the past tense in Spanish

The **preterite** is the past tense used in Spanish to describe a completed action at a specific time in the past (e.g. ayer (yesterday), el año pasado (last year)). For regular we take off –ar, -er – ir and add the below endings :

	-AR	-ER / -IR
I	é	í
You (sg)	aste	iste
He/she/it	ó	ió
We	amos	imos
You (pl)	asteis	isteis
They	aron	ieron

Examples:

Tomar = to take
To form " I took"

TOMAR > tom > tomé

Hablar = to speak
To form "she spoke"

HABLAR > habl > habló

9.10 Leisure and heathy living

3 time frames
Infinitives
Time phrases

opinions
justifications

1.Expressing FUTURE intentions :
Tengo la intención de + infinitive (I plan to/ I intend to …)
Me gustaría + infinitive (I would like to…)

2.Using infinitives after me gusta/no me gusta/odiar/preferir :
You can also use an infinitive after opinion verbs such as aimer, odiar and preferir. They are usually translated with a **gerund** (a verb ending with -ing) in English:
Me gusta *vivir* à Newcastle - I like living in Newcastle.
Prefieres *jugar* al fútbol o al tenis? - Do you prefer playing football or tennis?
Odio *beber* café porque es asqueroso – She hates drinking coffee because it's disgusting.

3.Opinions
Me gusta(n) - I like
Me gusta(n) **mucho** - I like **a lot**
No me gusta(n) **mucho** - I don't like **much**
Prefiero – I prefer
Odio - I hate
No suporto - I can't stand

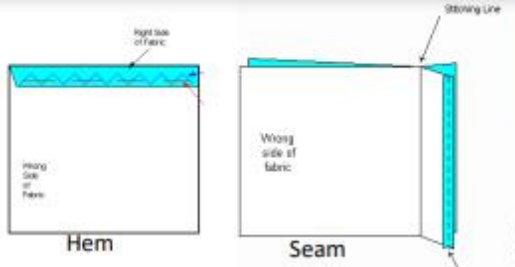
4.Justification
Porque - because
Por lo tanto – therefore/so
Por consiguiente- consequently

5.Comparisons
Más…..que –more…than
Menos…que - less…than
Tan…como – as…as

6.Superlative
El/la más – the most
El/la menos – the least
El/la major – the best
El/la peor – the worse

7.Time phrases
Normalmente - normally
Usualmente - usually
Generalmente - generally
De vez en cuando/a veces – sometimes
Luego – next
Raramente - rarely
El fin de semana que viene– next weekend
La semana que viene- next week
El fin de semana pasado - last weekend
El mes pasado - last month
El verano pasado- last summer
Durante la cuarentena- during lockdown

Year 9 Textiles Knowledge Organiser

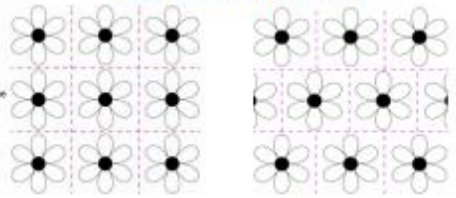


What is the difference between a hem and a seam?

A hem is a neat non fraying edge made by folding fabric over and stitching it down. A seam is a line along which pieces of cloth are joined by sewing.

One image is called a 'motif'

The motif has been repeated to make two different patterns



plain repeat pattern

brick repeat pattern/ offset repeat pattern

Equipment	Use
Bobbin 	A bobbin is a cylinder, to which cotton thread is wrapped around. It is found in the bottom part of a sewing machine.
Overlocker machine 	An overlocker does not replace a sewing machine. Its primary function is to clean finish a raw edge, giving the project a professional appearance
Quick unpick 	It is used to quickly remove stitches and seams.
Tailor's chalk 	Used to mark on to fabric. It is easily washed off.
Measuring Tape 	It is a flexible ruler that can be used for body measurements, tailoring and dressmaking. It is flexible to measure fabric and curves of the body.

About Designers

Orla Kiely

Orla Kiely is known for her print designs inspired by her early childhood – the colours of the countryside and her home.

Kiely's design work lends itself to CAD for its repetitive style. Her original work was hand painted using gouache paint. 'Stem' is her most iconic print which consists of simple graphic strength – clean, measured and bold.

Kiely believes her work is never finished and can be re-worked several times until she is satisfied with the end result.

Laura Ashley

Print has been at the forefront of the Laura Ashley brand since it was first established when Laura Ashley started printing her own designs for head scarves.

She went on to design dresses for social wear at the end of the 1960s. Her popular long Victorian-inspired dresses became known as the 'Laura Ashley look'.

The business expanded into coordinated ranges of furnishing fabrics using natural materials such as cotton and recycled paper for wallpaper.

Textiles Hierarchy of Key words

Tier 3 'Academic' keywords.

Plain seam, analyse, sustainable, embellishment, Woven/ bonded/ knitted, Free machine embroidery, function, develop

Tier 2 Valuable keywords used in most lessons every lesson.

Complementary colours, contrast, environment, fastening, compare, embroidery, equipment, iron, context, appliqué, effect, improve

Tier 1 Basic keywords used in almost every lesson.

colour, design, shape, machine, pattern, line, Texture, tone, theme, Fabric, thread, sew

Questions and activities – hints and tips

Summarising a lesson:

Answer the following questions to help you summarise your learning in a lesson. This will help you recap and think again about your learning, and will be useful to look back on in the future.

- What key words did you use in the lesson?
- Can you define those key words and use them in a sentence?
- What new content did you cover?
- How does this link to your previous learning?
- Can you summarise your learning into one sentence?

Revision:

If you have an MCQ approaching, you could create some revision material based on your knowledge organiser.

Can you get down the key information in a spider diagram?

Can you use diagrams, pictures, symbols etc to recall your knowledge?

Knowledge quizzes:

Create a set of questions using the information from your knowledge organiser, or from your lesson.

You could make them about key words, and maybe even give multiple choice answers.

Go over the questions you keep getting wrong.

Try the questions out with those at home, or maybe your teacher could use them for their starter quiz in class.

Keyword Development:

Practise the spellings of key words. Use the look-cover-write-check method to help you.

Can you explain what the key words mean?

Can you link the key words together?

Copy out the key words with their definitions.

What might it look like?

Geography — Thursday 1st October

Topic: Our Place in the World

Lesson Summary:

Longitude - the distance, in degrees, E or W of the Prime Meridian.

Latitude - the distance, in degrees, N or S of the Equator.

Today we learnt about how the world is divided up using lines of latitude + longitude. The Equator is an 0° latitude, and the poles are 90° N +S.

This links to our previous learning because now I can say where the continents are using longitude + latitude to find them on a map

Lesson summary:

Knowledge Quiz:

Science

Topic: Cells — Monday 28th September

Knowledge Quiz:

1.) What is the name of the part of the microscope where the specimen is placed?
A= Stage

2.) How many cells are there in a 'unicellular' organism?
A= one

3.) What does the 'cell membrane' do?
A= controls movement of substances in + out of the cell

4.) Where does photosynthesis take place in a cell?
A= Chloroplast

5.) What is the function of the red blood cells?
A= to carry oxygen

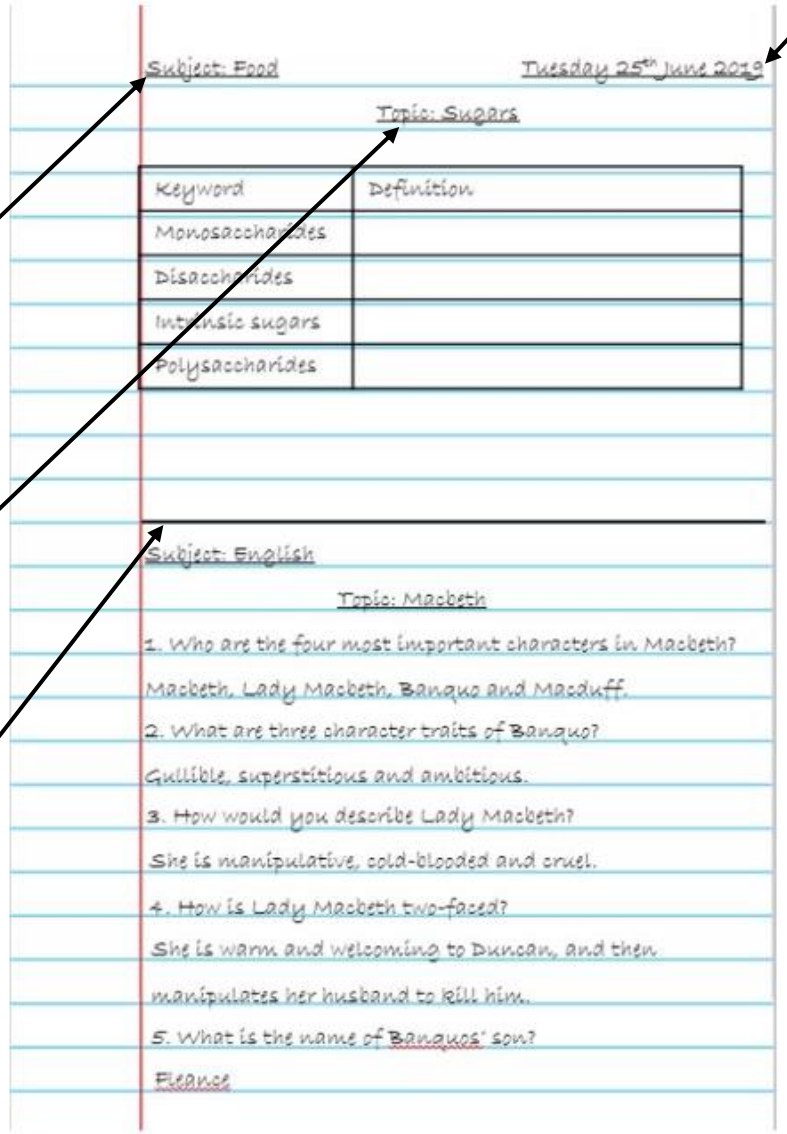
How to present your homework:

Date written fully on the right hand side of the page and underlined – this should be the day you complete the homework.

Subject written on the left-hand side of the page and underlined.
For example: Food

Topic written on the centre of the page and underlined.
For example: Sugars

One single straight line between both pieces of homework.



Subject: Food — Tuesday 25th June 2019

Topic: Sugars

Keyword	Definition
Monosaccharides	
Disaccharides	
Intrinsic sugars	
Polysaccharides	

Subject: English

Topic: Macbeth

1. Who are the four most important characters in Macbeth?

Macbeth, Lady Macbeth, Banquo and Macduff.

2. What are three character traits of Banquo?

Gullible, superstitious and ambitious.

3. How would you describe Lady Macbeth?

She is manipulative, cold-blooded and cruel.

4. How is Lady Macbeth two-faced?

She is warm and welcoming to Duncan, and then manipulates her husband to kill him.

5. What is the name of Banquos' son?

Fleance