Co-op Academy
Walkden

Knowledge Organisers

Year 10 Term 2

What are Knowledge Organisers?

Knowledge organisers are a summary of the key knowledge and skills that pupils need for a unit of work or a curriculum subject. They are overview sheets with information broken down into bite size chunks so pupils can revise and use them within their homework or studies.

How do I use my Knowledge Organiser?

There will be several strategies to use when using Knowledge Organisers (KOs) which will include:

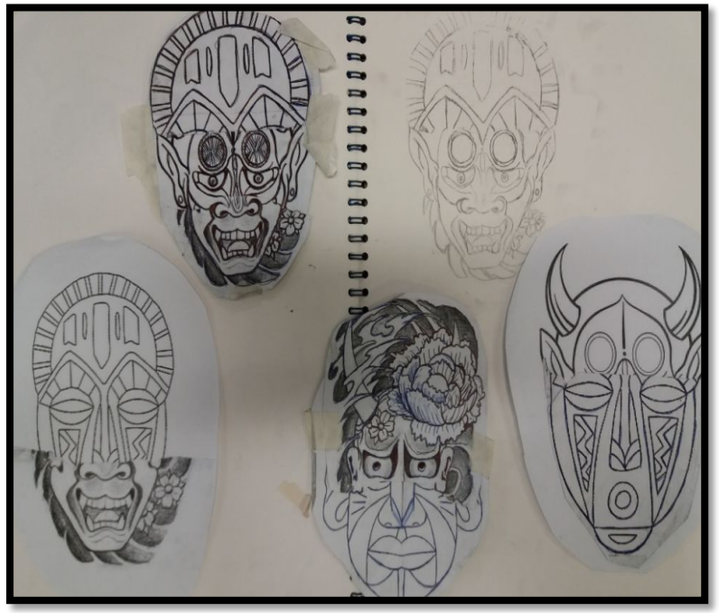
- Read, say, cover, write and check (RSCWC). When revising knowledge for your subjects we have discussed the importance of doing it from memory and not copying from one piece of paper to another.
- A knowledge or skill highlighting a tricky area (gaps underlined).
- Demonstrate spaced practice through revising with the knowledge organiser a little between each lesson, rather than a lot each week or fortnight.

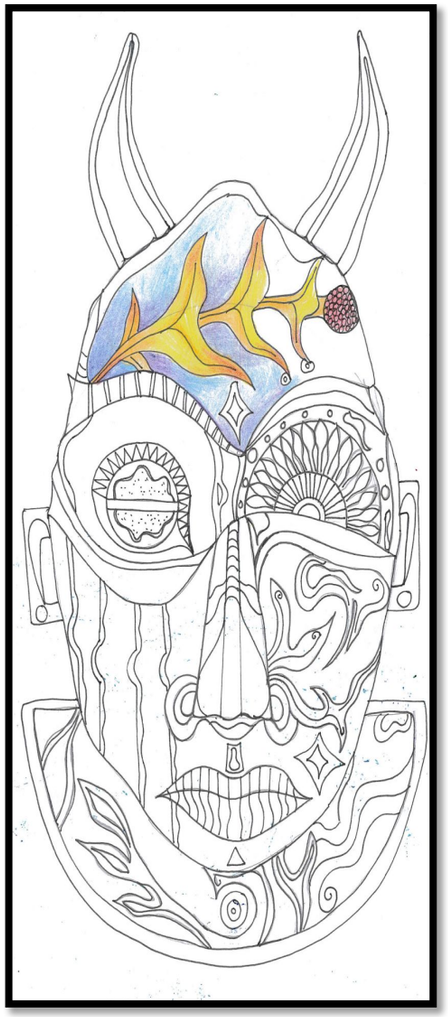
Read	Read your Knowledge organiser and select one area to focus on at a time.
Say	Select a section and read out aloud to yourself or to a family member or friend.
Cover	Cover your knowledge organiser so you can find out which areas you need to work on.
Write	Write down all the knowledge and skills you remember in you knowledge organiser fr that section.
Check	Look back and check to see if you were correct and got it right. Correct any mistakes or missing information in red pen.

Contents

Art

YEAR 10 : AO2 – DESIGN DEVELOPMENT





- Making reference to your observations, mood board and research create a set of 3 or 4 initial designs for a new mask design. Each mask design must include a mixture of different cultural influences.
- You may find it helpful to begin by creating photomontages. The process will help you consider different mask outline shapes and features .
- Consider the scale and proportion of features and what you want the focus of your design to be e.g.: the eyes, mouth, background pattern etc.
- Add colour to your initial designs using colour pencil, water colour or a mixture of both. Fine liner can be used to add definition and detail.
- Develop your initial designs by selecting and refining the most successful parts from them to create a final design. Add in finer details and cultural pattern to make the design more complex. Add colour to complete.
- Present your designs onto a design board and annotate to explain specifically the cultural influences that have inspired your design work. Comment on your choice of colour palette and any particular meanings that sit behind your choices of shape, pattern, colour and texture.

KEYWORDS

Refine – To make changes to a design or artwork in order to improve it.
Experiment – To try out new ideas, new mixtures of materials, new ways of using/applying a material.
Media - The material used by an artist eg paints, pencil, fabric.
Technique – a particular way of applying a material eg a paint technique.
Process - a series of actions or steps taken in order to achieve a particular outcome.

Photomontage – an image constructed from photographic images.
Collage – a piece of art made by sticking various different materials such as photographs, paper or fabric on to a backing.
Initial designs – Your first set of designs displaying three of four initial ideas for a final piece.
Design development – The process of changing and improving a design.
Final design – The design that you will recreate as a final piece. This will be one design that is a development from your initial designs.
Final piece – The last part of a project that all of your research and designs feed into and inform.
Personal response – artwork that is not a copy of an existing piece of artwork. It is based on your own research, designs and ideas.

YEAR 10 : HOMEWORK

Art homework at KS4 is set once a week. Students should spend approximately 60 minutes completing their homework.
All work completed during KS4 is coursework. Homework therefore will be a continuation of the students GCSE sketchbook and portfolio work.

Homework will include the following types of task:

- Observational drawings
- Creation of mood boards
- Taking photos
- Mind maps
- Artist analysis
- Initial and final designs
- Annotations
- Sampling
- Presentation of sketchbook pages and design boards.

Photography

LIGHT AND DARK

Skills

STUDIO

Setting up Studio lighting for photo shoots.

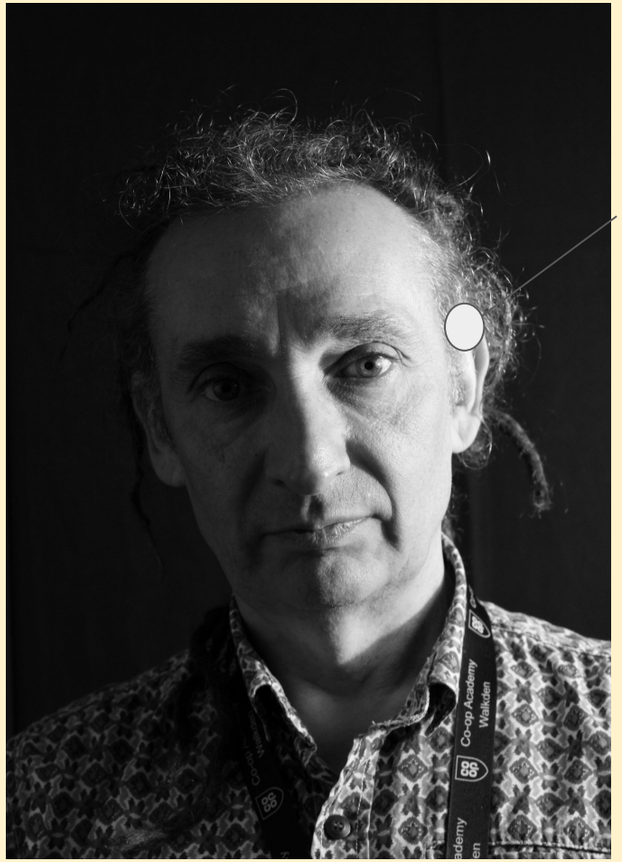
Add lighting to one side of the still life or portrait composition to create the Chiaroscuro effect (light and dark.)

LOCATION SHOOTS

Shoot in monochrome appropriately through adapting and experimenting the follow:

ISO - the higher the setting the lighter your photography will be.

Shutter speed - The lower the setting the lighter the photograph will be. This may mean that you need a tripod to avoid ‘camera shake’.



Chiaroscuro, **Italian: Italian for 'light-dark' in art and photography, is the use of strong contrasts between light and dark, usually bold contrasts affecting a whole composition.**

TOP TIP

Your shutter speed will need be on a higher setting so make sure you use a tripod for your camera to avoid a blurred outcome.

KEYWORDS

Monochrome -a photograph or picture developed or executed in black and white

Contrast - the state of being strikingly different from something else.

Silhouettes -the dark shape and outline of someone or something visible in restricted light against a brighter background.

Shadows -a dark area or shape produced by an object or body coming between rays of light and a surface

Composition - the artistic arrangement of the parts of a picture.

Make sure when you take a photograph you preview it on your camera then adapt and adjust the the settings before you take the next shot.
Ask yourself: Is my shot blurry? Are you happy with the composition? Is my lighting set up in the correct area of the studio for my desired contrast.Do I have enough contrast between light and dark?

YEAR 10 : PHOTOGRAPHY - HOMEWORK

Art homework at KS4 is set once a week. Students should spend approximately 60 minutes completing their homework.
All work completed during KS4 is coursework. Homework therefore will be a continuation of the students GCSE sketchbook and portfolio work.

Homework will include the following types of task:

- Observational Photography
- Creation of mood boards
- Evidence of photography techniques
- Mind maps
- Photographer analysis
- Initial and final designs
- Annotations
- Experiments
- Presentation of project on boards or E-portfolio

READ: A beginners guide to digital Photography - Tim Daly

Digital Photography step by step - Jerry Glenwright

WATCH and LISTEN:A Photographer's Guide to Contrast - https://www.youtube.com/watch?v=fiu7rUWL3Ho

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Drama

GCSE Knowledge Organiser Term 2

Why is scripted (Presenting and Performing Texts) an important element to the GCSE Course?

The scripted element makes up 30% of your final exam. Presenting and performing texts (03/04) 60 marks Non-exam assessment (Visiting examination)

Research

Once you have been allocated a group and received your scripts you will then begin a research phase. It is so important that first you research the playwright and then the play.

You can research in the usual way of the internet but also try to watch videos of the play on YouTube to deepen your knowledge.

What is Naturalism? Naturalism is 'real life' and realistic.

What are Semiotics? Things which represent other perspectives for example red represents blood, danger and death.

Characterisation

Once the group has explored the script they need to focus on characterisation. There are several rehearsal techniques to explore and cement a character.

Hot Seating – asking specific questions to a person who is in role and sustains their character whilst answering.

Role on The Wall – Creating a detailed role on the wall for your character allows you to create a background story for your character giving you a greater understanding.

Uta Hagan's Given Circumstances – Detailed responses to questions regarding several aspects of your character. For example: WHAT SURROUNDS ME? (Animate and inanimate objects-complete details of environment) This is the best research to deepen your knowledge. It is what Stanislavski would have done too.

Konstantin Stanislavski Stanislavski is a theatre practitioner who had a huge influence on modern theatre. His approach is called 'The Method' or Method Acting. This means the actors should adapt and become the character that they are playing (such as Heath Ledger when playing the Joker). The actor shouldn't only know what lines he needs to say and the motivation for those lines, but also every detail of that character's life offstage as well as onstage. Stan believes in naturalism and making things seem as realistic as possible on the stage in all aspects – sound, lighting, costume, actors, props, set.

Stanislavski would usually use a Proscenium Arch Stage where the audience would create a fourth wall. This would mean the audience are part of the action; they feel like the missing part of the play. Stanislavski used a rehearsal technique named the ***Magic If*** where a character asks themselves the question 'what if I was in this situation, what would I do?' this gives a character a motive, also making the actor think as their character. (Use this in the characterisation section too).

Keywords: Playwright, Script, Proscenium Arch Stage, Genre, Politics, Characters, Plot, Intentions, Historical Context, Cultural Context, Social Context, Stage Configuration, Stanislavski, Research, Given Circumstances, , method acting, Characterisation, Thrust stage, Audience, Emotion Naturalism, Semiotics, Magic If.

Stage Configuration

What effect will your stage configuration have on the audience? How does your stage configuration enhance your piece of theatre? What would the playwright have intended?

Social, Historical, Political and Cultural Contexts. Have you thought about the different contexts for your scripted piece? These elements should build up your research section, what did the playwright intend?

Social Context – A social setting or environment in which people live.

Historical Context – A part of history which has happened (this could be when/where the play was set)

Political Context – The political party in power at the time and how this impacted on society.

Cultural Context – How culture can affect behaviour, choices and decisions for characters.

Research Website: http://www.bbc.co.uk/education/guides/zxn4mp3/revision/1t

What to Watch and Read
Extension and Support

GCSE Section A Revision Video with Mr Coles

https://www.youtube.com/watch?v=JnQe6SkCGJg

Meet Stanislavski
https://www.youtube.com/watch?v=JDDitfsZS1c

Meet Brecht
https://www.youtube.com/watch?v=ksv4GnTR6l8

Meet Berkoff
https://www.youtube.com/watch?v=wrrTaknHtuE

Meet Artaud

https://www.youtube.com/watch?v=DK_vZuLYHcw&t=59s

Read about the Practitioners

http://essentialdrama.com/practitioners/

Noughts and Crosses - Comp 1 Understanding Drama

Noughts & Crosses tells the story of two young people: a girl called Sephy, and a boy called Callum. Callum is a nought – he's white, from a poor family and lives on a rough estate. Sephy is a Cross – she's black, from a wealthy, powerful family and lives in a grand country house. The story takes place in world very similar to our own, apart from the massive split between noughts and Crosses. Crosses are the ruling class and noughts struggle against prejudice, poverty and low status. It's almost unheard of for a Cross to be friends with a nought, but Sephy and Callum are very close. Even so, Callum sometimes feels Sephy doesn't understand the prejudice he faces. Sephy is frustrated that Callum doesn't realise how hard she tries to understand and that she has her own problems with her cold, snobbish family.

Callum's dad and brother get involved with a nought terrorist organisation. Callum initially hates the violence but after his sister dies and his dad is killed in prison, he turns terrorist too. He hardens himself to the violence but when he is involved in kidnapping Sephy, he realises that he should never have joined the organisation. Despite Sephy and Callum's love for each other, there's no place in their society for a nought and a Cross who want to be together.

Playwright: Malorie Blackman
“Noughts & Crosses wasn’t so much a book I wanted to
write as a book I needed to write. It was born of a... need to deal with a number of events from my past, a desire to tackle the subject of racism head on, and the burning anger I felt regarding the death of Stephen Lawrence and the subsequent mishandling of the
police inquiry into his death.” “[Noughts and Crosses] is a game that once you’ve grasped its objectives and tactics, it invariably ends in a draw – a no-win situation. I think that pretty much sums up racism. Ultimately no one wins.” “I knew I was writing a book that would make some adults very uncomfortable (and it did!) because I was dealing with racism, terrorism, the class system and the artificial divides we always seem to put between ourselves and others. But it was a risk I was willing to take.”

Noughts and Crosses

Key Themes

Racism and prejudice

In this world, society is turned on its head. It's a powerful, wealthy, black ruling class who are discriminating against whites. Crosses with dark skin are seen as the superior race and noughts with light skin are seen as inferior. The theme is explored throughout with a number of key scenes highlighting this theme, e.g. when the noughts go to Heathcroft for the first time. The world of the novel has many close parallels to the civil rights movement in the USA. The atmosphere of the play is permeated by tension because of the way the noughts are treated, e.g. the creation of the of the Liberation Militia (LM), the bombing, etc. To make the racism convincing, there are several incidents and details that have happened in realty, e.g. the colour of plasters.

Identity

In the play (and in reality), individuals are defined by their class and the colour of their skin. Because Callum and Sephy have grown up together and are friends, they can see beyond the labels. As the play progresses, they reject the labels and the prejudices that goes with them and make their own choices, even though there are terrible Consequences.

Violent and peaceful protest

The play looks at the ways people respond to situations they believe are wrong. Oppressing the noughts results in terrible consequences, often for innocent people. The bombing of the shopping centre has terrible consequences for not only the victims but the McGregor family as well. The play also makes the audience think about why people turn to violence. Ryan, Jude and Callum join the LM because it's the only way they can try and make their voices heard. The play doesn't support violence but it does suggest that people without any political power may feel forced to make themselves heard.

Love and friendship

This is primarily explored through the relationship between Callum and Sephy; their friendship is warm and intense and, in spite of everything, remains strong until the end. Sephy decision to keep the baby and defend how it was conceived highlights the depth of the relationship. It stands as a symbol of hope in a desolate world.

"You're a Nought and I'm a Cross and there's nowhere for us to be, nowhere for us to go where we'd be left in peace..."

Key characters Character Description

Callum A nought who has a close relationship with his childhood friend Sephy. With the help of a scholarship, Callum can join Sephy's 'Cross' school, which leads to discrimination and bullying.

Sephy A cross who has a close relationship with her childhood friend Callum. Sephy is naïve to the brutal world around her. However, she learns to sympathise with Callum's suffering.

Jude Callum's older brother, who displays violent and aggressive tendencies.

Lynette Lynette is Jude and Callum's older sister. Previously, she experienced trauma that affected her mentally.

Ryan Callum's father. He does all he can to protect his family.

Meggie Callum's mother. She was fired as a housekeeper for the Hadley family three years before the play begins .

Kamal Sephy's father. He is a government official who regards crosses as superior to noughts.

Jasmine Sephy's mother. Her husband's neglect causes Jasmine to feel lonely, insignificant and powerless.

Minerva Sephy's older sister. They frequently disagree with one another.

Noughts and Crosses

Vocal Skills Definition

Volume How loudly or quietly you speak to convey a feeling
Tone The expression in your voice e.g. angry tone
Accent The way you pronounce words
Pitch How high or low your voice sounds. **Pace** The speed in which you speak
Pause The breaks you take to add tension
Emphasis The importance you put on certain words

The structure of the play

The structure of Noughts & Crosses is known as story theatre; characters stand back and comment on the action as well as take part. They share their thoughts and feelings, comment on events, provide transitional information from one episode to another and help to cover the expository material handled in the play's narrative.

Story theatre tends to use very little set and few props, which are carefully selected and designed. This way, action can proceed quickly without elaborate set changes. Story theatre is highly episodic. The action takes place in a variety of places during many scenes. Each episode gives the audience an insight into characters and events that have played a significant part in Sephy and Callum's relationship and the society they are part of. The episodic structure allows different perspectives to be viewed by the audience, e.g. Sephy and Callum's family life and their relationships within the family. The structure
is also linear. Although the play begins with a flashback and there are flashbacks in Act 2 to suggest the passing of time, generally the play follows the story of Sephy and Callum from beginning to end.

Physical Skills Definition

Facial Expression How you are modifying your face
Eye Contact Where you are looking
Movement and Gesture - Any movement or gesture that conveys meaning
Posture The way you hold your shoulders/back
Proxemics The use of space and levels to convey meaning interaction How the characters behave around each other
Gait The way the character walks

Genre:
Noughts and Crosses is Dystopian with aspects of tragedy.
Dystopian = Imagines worlds or societies where life is extremely bad because of deprivation or oppression or terror, and human society is characterized by human misery, such as squalor, oppression, disease, overcrowding, environmental destruction, or war.
Tragedy = Drama based on human suffering and, mainly, the terrible or sorrowful events that befall a main character.

Key Command Words:

Describe: Tell me what you see or do

Explain: Tell me why you did it or why they did it

Analyse: Breakdown into its fundamental parts and explore them in depth.

Evaluate: Tell me how it could be improved or what was good about it.

Noughts and Crosses

Original Staging

The play was first performed by Pilot Theatre on 1st February, 2019, at Derby Theatre on an end-on stage. The set, designed by Simon Kenny, created a dystopian reality. A series of panels morphed from walls to apertures to cupboards. This structure was constantly folding and changing. The panels would suddenly transform into banks of video screens or live TV transmissions. The set created a recognisable world but also another, parallel world. Chairs and tables became mirrors. Barricades represented chaos as violence erupted.

The predominant colours were red tones: '...non-natural, lending a brutal, futuristic feel. Red is also the colour of blood and fire and sexuality, and the saturated, claustrophobia of the singular shade heightens the energy in the whole piece'. (Phillip Lowe, East Midlands Theatre online) Props were simple and naturalistic to suggest both character and location, e.g. a crystal wine glass and decanter, a rucksack used as a school bag, etc.

The set was enhanced by Joshua Pharo's lighting design. He used neon, direct, mood and sectional lighting. This emphasised the structural qualities of the set and reinforced the modern setting. Strobes and haze were used to create atmosphere and location. Infrared was the dominant colour. Projections of news footage gave the play an authenticity and immediacy. The sound and music had a cinematic feel and worked in conjunction with the lighting to conjure up locations and atmosphere, e.g. a secluded seashore and the terrorist atrocity.

Costume was naturalistic and gave the production a contemporary feel, reflecting the age and status of the characters. The colour used in the Crosses' costumes were 'bright and jewel-like in their wealthy fabrics; the noughts faded and wrung out'. The colour scheme of the set was echoed in the uniforms for Heathcroft School and the Liberation Militia.

Further Support:
Video 1: https://www.youtube.com/watch?v=lbFqHDyXo-o
Video 2 : https://www.youtube.com/watch?v=UsMwXeF7K8o
Video 3: https://www.youtube.com/watch?v=cfLWccy_55Y
Video 4: https://www.youtube.com/watch?v=5l0tPbRYKNg
https://www.theguardian.com/stage/2019/jan/19/sabrina-mahfouz-interview-noughts-and-crosses-emma-watson
Podcast: https://www.bbc.co.uk/programmes/p06ykmfw
Podcast:
https://player.fm/series/british-theatre-guide-podcast/new-consortium-for-theatre-for-young-people-stages-blackmans-noughts-and-crosses

Construction

Construction

UK Health & Safety Legislation

1. Health & Safety at Work Act 1974
2. COSHH Control of Substances Hazardous to Health 2002
3. RIDDOR Reporting of Injuries, Diseases and Dangerous Occurrences Regulation 1995
4. PUWER Provision and Use of Work Equipment Regulations 1998
5. Manual Handling Operations Regulations 1992
6. Personal Protective Equipment at Work Regulations 1992
7. Working at Height Regulations 2005
8. The Control of Asbestos Regulations 2012

Reminder - It is against the law to obstruct or disregard Health and Safety Legislation in the UK. You could have your site/workplace closed down, receive a fine or even end up in prison.

HASAWA 1974

The Health and Safety at Work Act 1974 is the main piece of legislation in the UK that governs all workplace health, safety and welfare. The HASAWA is intended to promote health and safety awareness, and effective standards of health and safety management are in place to promote, stimulate and encourage good standards of health and safety in the workplace.

HASAWA 1974

This comprehensive act is intended to involve everyone in matters of health and safety. The groups can be summarised as:

1) **Management**
2) **Employee' Representatives**
3) **Employees**
4) **Controllers of Premises**
5) **Self-Employed**
6) **Manufacturers**

HSE

The Health and Safety Executive is a UK government agency responsible for the regulation, encouragement, and enforcement of workplace health, safety and welfare.

Key Terms

Employee - Someone who works under an employment contract.

Employer - A person or organisation who employs people under a contract.

Compliant - An acceptable level of pre-agreed standards.

HAZARD - A hazard is something dangerous that could hurt you

RISK - the likelihood that the hazard will cause harm to someone

Employer Responsibilities

1. Decide what could harm you in your job and the precautions to stop it.
2. Explain risks to their employees and how to control the risk.
3. Talk and discuss with their employees about health and safety.
4. Provide FREE Health and Safety Training.
5. Provide FREE Personal Protective Equipment.
6. Provide toilets and somewhere to wash your hands.
7. Provide drinking water and somewhere to eat during your breaks.
8. Provide First Aid Facilities in the case of an accident.
9. REPORT major accidents to the HSE.
10. Have insurance to protect everyone's Health and Safety.

Employee Responsibilities

1. Never damage PPE and ensure it is reported if something breaks.
2. Tell someone if any dangerous or risky situations are spotted.
3. Co-operate with your boss and do as they ask.
4. Follow Health and Safety Training when provided.
5. Wear the correct PPE

HEALTH & SAFETY

SIGNS

PROHIBITION

Do Not

Red circle with a crossbar on a white background.

MANDATORY

You Must

Blue circle with white symbols and lettering.

WARNING

Be Aware

Yellow triangle with black border and lettering.

SAFE CONDITION

Follow Me

Green square or rectangle with white symbol and lettering.

HAZARD IDENTIFICATION

Spot the hazards in your workplace that could cause harm to someone!

ASSESS THE RISK

Understand how the hazard could hurt someone and how likely it is!

CONTROL MEASURE

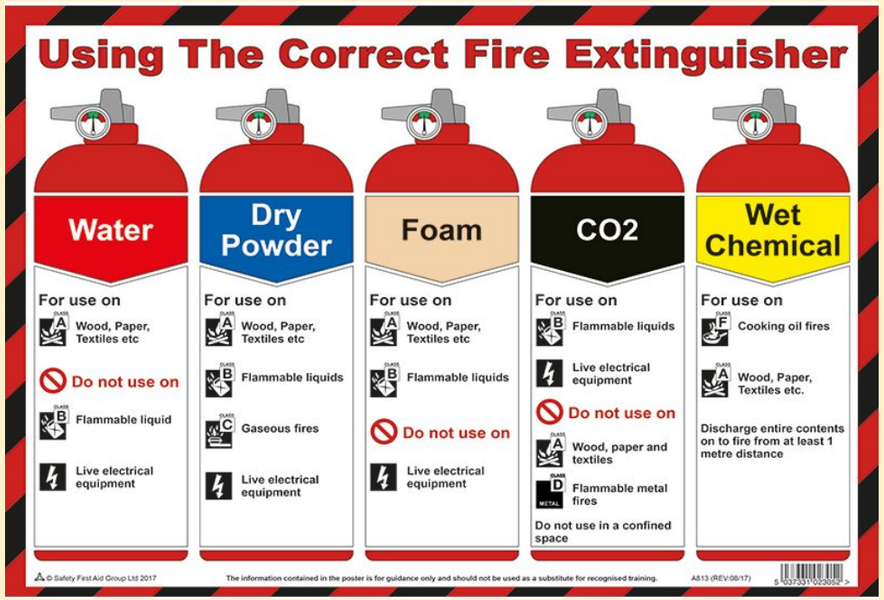
What can you do to control the risk? Can you get rid of it all together?

REVIEW THE RISK

Make sure the review the hazard and risk to adapt to any changes.

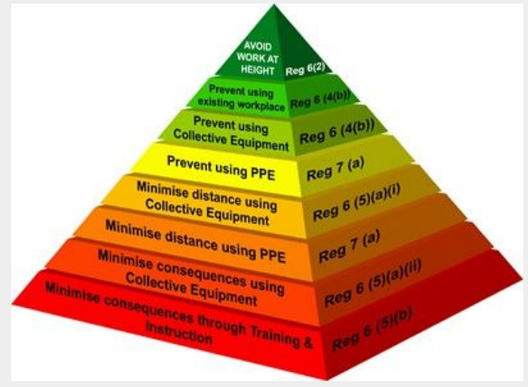
Construction - Unit 1

Warning
Site security on site



HSE Health and Safety Executive

RISK ASSESSMENT



Security Risks/ Effects
Theft of tools
Theft of plant /machinery
Vandalism
Theft of personal information (name, addresses, DOB, bank details, etc…)
Injury of unauthorised person (claim)
Assault on employees
Closure of site due to theft/damage of site.
Control Measures
Strong Perimeter Fence, warning signs
CCTV
Security Guards
Strong passwords, firewall, locks on Computers /Laptops
Tools / Equipment locked away in strong material storage units, no windows
Tracking devices on plant /machinery
All tools /equipment registered on National Equipment Register
All vehicles are locked/ secured overnight

HAZARD

RISK

CONTROL MEASURE

What is a hazard?
A hazard is an activity or an object that will cause harm or injury to someone. This will be a simple answer **(usually worth 1 mark)**

What is a risk?
This is describing the harm/injury that could happen because of the hazard. You must describe why/how this is likely to happen. You should be explicit in the detail of the harm likely to happen. **(usually work 2-3 marks)**

What is a control measure?
A control measure is what you can do to prevent the hazard from hurting anyone (not just the people present in the picture). You must explain how the control measure will work. How will it be successful. **(usually worth 3-4 marks)**.

Construction - Unit 1

- Look at the marks available, work out how much explanation/detail is required.
- Look at the question - is it asking you to describe, explain?
- Look at the question - is there any clues in the text?
- Keep it simple - go for the obvious answers. Don't over complicate it and try to see hidden hazards.
- Write as much as you can. DO NOT assume the examiner will know what you mean. Explain WHY you think there is a risk. Explain what the risk would be… what type of injury, impact would there be. Explain why the Control Measure would work - the purpose of it.

EFFECTS

REMEMBER - there are 4 types of EFFECTS from a hazard.

You should REFERENCE these in your answers when explaining the RISKS!

PHYSICAL	PSYCHOLOGICAL	FINANCIAL	ENVIRONMENTAL
Bodily harm (broken leg)	Harm to your mind (stress, PTSD)	Money Damage (fine, bankruptcy)	Damage to the natural environment (trees, animals)

QUESTION STYLE

IMAGE 1

What are the risks to security? (3)

Remember to explain in as much detail as possible!

Write you answer here….

What control measures could be put in place to tighten security on this site? (4)

Remember to explain in as much detail as possible!

Write you answer here….

Job Roles

Learning Outcome 1 – Know job roles involved in realizing construction and built environment projects.

Activities

The physical intricate tasks undertaken by the job role.

Responsibilities

The expected duties of the job role.

Outputs

The physical completed activities undertaken by the job role.

EXAMPLE - *ELECTRICIAN*

Activities

Cuts cables/wires, measures cables/wires, connects electrical appliances, buys electrical materials.

Responsibilities

To follow instructions as directed by the employer for all electrical work. To complete work to the client's requests. Work as part of a team. Follow all health and safety rules, demonstrate a competent level of health and safety.

Outputs

Connect the building electrics to the main power supply, connect all plug sockets to the wall, connect all lighting appliances, check all electrics are connected safely.

Learning Outcome 2

Understand how built environment development projects are realised.

Design Planning

Controlled by the design team, they work together to create design ideas for the client, taking time and cost considerations!

Project Planning

The pre- construction period, construction phase and maintenance period will be planned in detailed schedules and programmes of work at an early stage.

Procurement Planning

The process of obtaining materials, labour, finance and plant so that the project can run efficiently and effectively.

Construction Unit 1

RIBA Plan of Work

Royal Institute of British Architects

Nationally recognised professional timetable of how a construction project can be managed and delivered.

Tradespersons

- Bricklayer
- Plumber
- Electrician
- Plasterer
- Roofer
- Carpenter/ Joiner
- Floor Layer/ Carpet Fitter
- Insulation Installer
- Labourer
- Dry Liner
- Heating System Installer (Gas)
- Window Fitter
- Bathroom/Kitchen Installer
- Landscaper
- Painter/ Decorator
- Scaffolder
- Tiler

Specialist Sub-Contractor

- Lift/ Escalator installation
- Cladding Systems
- Air Conditioning Systems

Client's Team

- Client
- Architect
- Structural Engineer
- Building Services Engineer
- Quantity Surveyor
- Project Manager
- Designer
- Civil Engineer

Statutory Personnel

- Building Inspector
- Town Planner
- Health & Safety Officer
- Public Health Inspector

General

- Administrator
- Finance Officer
- Public Liaison Officer
- Purchasing / Procurement Officer
- Catering
- Security Officer

Construction

1. Prepare site including principal roads and drainage
2. Excavate / pour foundations
3. Build substructure to ground floor level
4. Pour sub-floor concrete
5. Build wall construction to first floor level
6. Place floor joist or slabs
7. Build wall construction to second floor or roof level
8. Install internal walls
9. Put on roof
10. Install external components
11. First fix building shell in preparation for plastering
12. Plastering all internal and external walls
13. Install second fix components (doors, skirting, radiators, light switches)
14. Install kitchen and bathroom
15. Decorate / finish
16. Clean, test and final inspections
17. Handover completed.

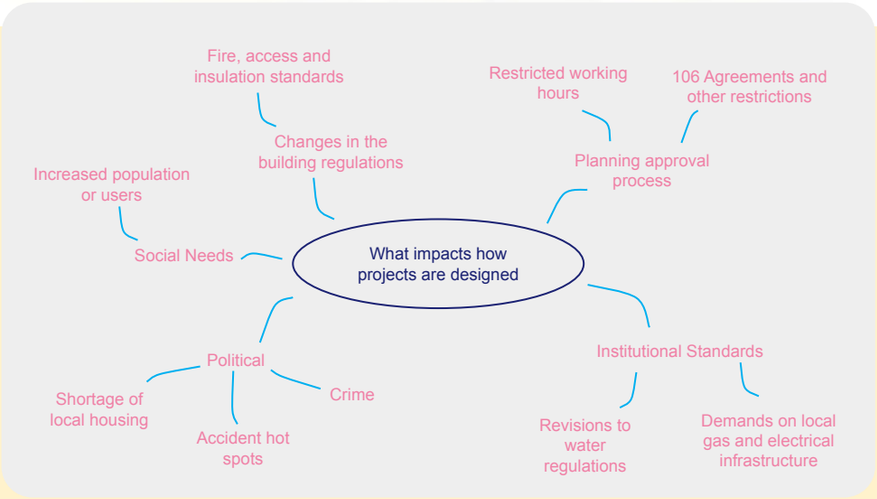
Reminder - Site setup includes installation of health and safety signs, a site fence/boundary and making sure everyone has completed a site H&S induction.

Key Term
106 agreements: Conditions imposed by the local authority planning department such as: for every 300 houses constructed the developer must provide a nursery school; or contribute to an adjacent road widening project; or maybe provide a pedestrian bridge over a local busy highway that the occupants of the new housing are likely to use. This ensures that any new development is safe and sustainable for people to live, work or play in and not subsidised by the taxpayer.

Key Term
Bill of Quantities: A bill of quantities is a document containing a tabulated list of all the materials contained within a building, including a specification of the total quantity of materials required. This document is prepared for the Quantity Surveyor is can be known as BoQ or BQ.

Key Term
Planning permission refers to the approval needed for construction or expansion of a building, and sometimes for demolition. Planning permission in the United Kingdom is the planning permission required in order to be allowed to build on land, or change the use of land or buildings.

Key Term
Building Control: Building regulations are the minimum standards for design, construction and alterations to virtually every building. The regulations are developed by the UK government and approved by Parliament. You can apply to any local authority building control department.



RIBA – Plan of Work
STAGES

1) Strategic Definition
Client decides to build a project, chooses an architect, completes a brief.

1) Preparation and Brief
Client chooses the management/design team, sets out communication system!

1) Concept Design
Architect creates initial/basic designs, works with client to ensure key concerns are met.

1) Developed Design
A more developed design is created, room requirements, sizes are discussed and met.

1) Technical Design
Full working plans are created, building contractor is chosen, planning permission is achieved, contracts are agreed.

1) Construction
Full construction of building takes place.

1) Handover and Close Out
Building is inspected and a final certificate of completion is issued, building is handed over to client.

1) In Use
Client uses building, process is evaluated.

Learning Outcome

Be able to plan built environment development projects

1) Sequence processes to be followed
2) Apportion time to processes
3) Set project tolerances

Activity	Day Number								
	1	2	3	4	5	6	7	8	9

Scale	Use
2:1 (Twice full size)	A small item e.g. An earing
1:1 (Actual size)	A handheld object e.g. Mobile phone
1:2 (Half size)	A small electrical device e.g. Laptop
1:10	A piece of furniture
1:100	A house or garden
1:500	A very large building e.g. sports stadium

Sources of Information

- Drawings
- Catalogues
- Spreadsheets
- Material Lists
- Specifications

Calculate

- Area
- Volume
- Percentages
- Scaling
- Best value
- Tolerances
- VAT
- Tender price

Resources

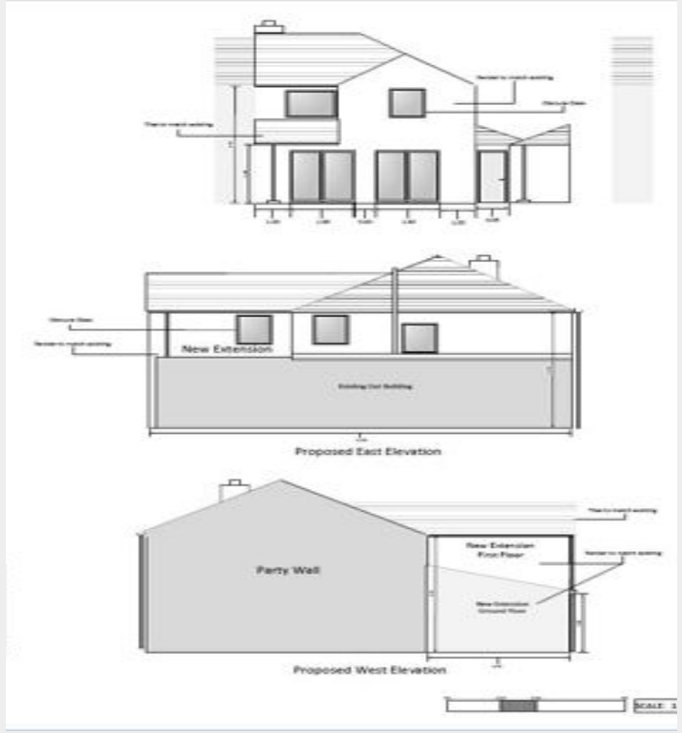
- Plant
- Machinery
- Labour

Factors Affecting Success

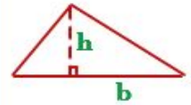
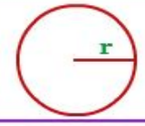
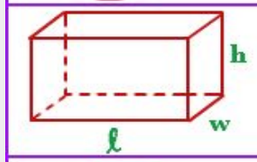
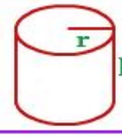
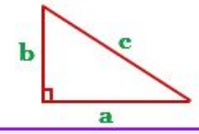
- Weather
- Budget
- Penalties
- Legislation
- H&S
- Time

Sources of Information

FULL ARCHITECTURAL TECHNICAL DRAWING



Geometry Formulas

	Area = ℓw Perimeter = 2ℓ + 2w
	Area = ½ bh
	Area = πr^2 Circumference = $2\pi r^2$
	Volume = ℓwh
	Volume = $\pi r^2 h$
	$C^2 = a^2 + b^2$

Hospitality & Catering

Level 1/2 Hospitality and Catering: Unit 2-2.1.1 -
Nutrition at different life stages & special dietary needs

Nutrition at different life-stages

Adults:

- **Early** – Growth in regard to height of the body continues to develop until 21 years of age. Therefore, all micro-nutrients and macro-nutrients especially carbohydrates, protein, fats, vitamins, calcium and iron are needed for strength, to avoid diseases and to maintain being healthy.
- **Middle** – The metabolic rate starts to slow down at this stage, and it is very easy to gain weight if the energy intake is unbalanced and there isn't enough physical activity.
- **Elderly** – The body's systems start to slow down with age and a risk of blood pressure can increase as well as decrease in appetite, vision and long-term memory. Because of this, it is essential to keep the body strong and free from disease by continuing to eat a healthy, balanced diet.

Children:

- **Babies** – All nutrients are essential and important in babies, especially protein as growth and development of the body is very quick at this stage. Vitamins and minerals are also important. You should try to limit the amount of salt and free sugars in the diet.
- **Toddlers** – All nutrients remain very important in the diet at this stage as growth remains. A variety of foods are needed for toddlers to have all the micro-nutrients and macro-nutrients the body needs to develop.
- **Teenagers** – The body grows at a fast pace at different times at this stage as the body develops from a child to an adult, therefore all nutrients are essential within proportions. Girls start their menstruation which can sometimes lead to anaemia due to not having enough iron in the body.

Special Dietary needs

Different energy requirements based on:

- Lifestyles / Occupation / Age / Activity level

The amount of energy the body needs is determined with each of the above factors e.g. active lifestyle or physical activity level would need more energy compared to a person being sedentary.

Medical conditions:

- **Allergens** – Examples of food allergies include milk, eggs, nuts and seafood.
- **Lactose intolerance** – Unable to digest lactose which is mainly found in milk and dairy products.
- **Gluten intolerance** – Follows a gluten free diet and eats alternatives to food containing wheat, barley and rye.
- **Diabetes (Type 2)** – High level of glucose in the blood, therefore changes include reducing the amount of fat, salt and sugar in the diet.
- **Cardiovascular disorder** – Needing a balanced, healthy diet with low levels of salt, sugar and fat.
- **Iron deficiency** – Needing to eat more dark green leafy vegetables, fortified cereals and dried fruit.

Dietary requirements:

- **Religious beliefs** – Different religions have different dietary requirements.
- **Vegetarian** – Avoids eating meats and fish but does eat dairy products and protein alternatives such as quorn and tofu.
- **Vegan** – Avoids all animal foods and products but can eat all plant-based foods and protein alternatives such as tofu and tempeh.
- **Pescatarian** – Follows a vegetarian diet but does eat fish products and seafood.

Level 1/2 Hospitality and Catering: Unit 2-2.1.1 -
Understanding the importance of nutrition

The importance of nutrition

Listed below are the macro-nutrients and micro-nutrients. You need to know their function in the body and know examples of food items for each. You need to know why they are needed in the diet and why there is a need for a balanced/varied diet.

Macro-nutrients

Carbohydrates - Carbohydrates are mainly used in the body for energy. There are two types of carbohydrates which are:

- **Starch** - Examples include bread, pasta, rice, potatoes and cereals.
- **Sugar** - Examples include sweets, cakes, biscuits & fizzy drinks.

Fat - This is needed to insulate the body, for energy, to protect bones and arteries from physical damage and provides fat soluble vitamins. There are two main types of fat which are:

- **Saturated fat** - Examples include butter, lard, meat and cheese.
- **Unsaturated fat** - Examples include avocados, plant oils such as sunflower oil, seeds and oily fish.

Protein - Protein is mainly used for growth and repair in the body and cell maintenance. There are two types of protein which are:

- **High biological value (HBV) protein** - Includes meat, fish, poultry, eggs, milk, cheese, yogurt, soya and quinoa.

- **Low biological value (LBV) protein** - Includes cereals, nuts, seeds and pulses.

Micro-nutrients

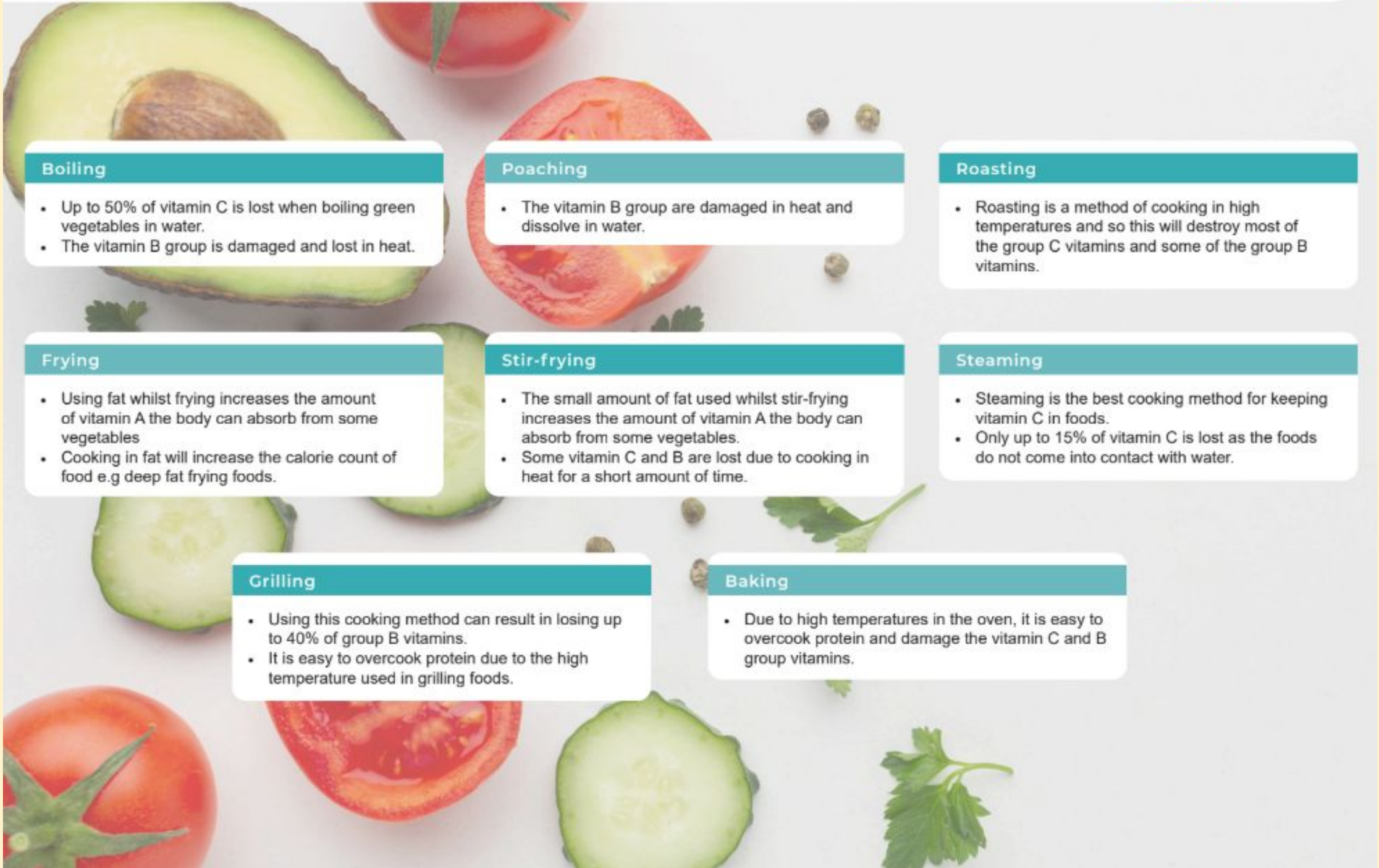
Vitamins

- **Fat soluble vitamin A** - Main functions include keeping the skin healthy, helps vision in weak light and helps children grow. Examples include leafy vegetables, eggs, oily fish and orange/yellow fruits.
- **Fat soluble vitamin D** - The main function of this micro-nutrient is to help the body absorb calcium during digestion. Examples include eggs, oily fish, fortified cereals and margarine.
- **Water soluble vitamin B group** - Helps absorbs minerals in the body, release energy from nutrients and helps to create red blood cells. Examples include wholegrain foods, milk and eggs.
- **Water soluble vitamin C** - Helps absorb iron in the body during digestion, supports the immune system and helps support connective tissue in the body which bind cells in the body together. Examples include citrus fruits, kiwi fruit, cabbage, broccoli, potatoes and liver.

Minerals

- **Calcium** - Needed for strengthening teeth and bones. Examples include dairy products, soya and green leafy vegetables.
- **Iron** - To make haemoglobin in red blood cells to carry oxygen around the body. Examples include nuts, beans, red meat and green leafy vegetables.
- **Sodium** - Controls how much water is in the body and helps with the function of nerves and muscles. Examples include salt, processed foods and cured meats.
- **Potassium** - Helps the heart muscle to work correctly and regulates the balance of fluid in the body. Examples include bananas, broccoli, parsnips, beans, nuts and fish.
- **Magnesium** - Helps convert food into energy. Examples include wholemeal bread, nuts and spinach.
- **Dietary fibre (NSP)** - Helps digestion and prevents constipation. Examples include wholegrain foods (wholemeal pasta, bread and cereals), brown rice, lentils, beans and pulses.
- **Water** - Helps control temperature of the body, helps get rid of waste products from the body and prevents dehydration. Foods that contain water naturally include fruits and vegetables, milk and eggs.

Level 1/2 Hospitality and Catering: Unit 2-2.1.2 -
How cooking methods can impact on nutritional value



Boiling

- Up to 50% of vitamin C is lost when boiling green vegetables in water.
- The vitamin B group is damaged and lost in heat.

Poaching

- The vitamin B group are damaged in heat and dissolve in water.

Roasting

- Roasting is a method of cooking in high temperatures and so this will destroy most of the group C vitamins and some of the group B vitamins.

Frying

- Using fat whilst frying increases the amount of vitamin A the body can absorb from some vegetables
- Cooking in fat will increase the calorie count of food e.g deep fat frying foods.

Stir-frying

- The small amount of fat used whilst stir-frying increases the amount of vitamin A the body can absorb from some vegetables.
- Some vitamin C and B are lost due to cooking in heat for a short amount of time.

Steaming

- Steaming is the best cooking method for keeping vitamin C in foods.
- Only up to 15% of vitamin C is lost as the foods do not come into contact with water.

Grilling

- Using this cooking method can result in losing up to 40% of group B vitamins.
- It is easy to overcook protein due to the high temperature used in grilling foods.

Baking

- Due to high temperatures in the oven, it is easy to overcook protein and damage the vitamin C and B group vitamins.

Level 1/2 Hospitality and Catering: Unit 2: 2.2.1 Factors affecting menu planning – Environmental issues

Sustainability

Many diners are interested in hospitality and catering provisions that provide sustainable dining.

The aim of the three Rs of sustainability is to conserve natural resources and prevent excess waste. By following the rules of reduce, reuse, and recycle, hospitality and catering provisions can save money at the same time as attracting more diners and bringing in more profit.

Sustainability also means buying local produce, using organic ingredients, buying meat and poultry from farm assured producers who guarantee better welfare for the animals, using Marine Stewardship Council sustainable fish and offering meat-free versions of favourite dishes.

Reduce

Food waste: If food and waste were its own country, it would be the third largest producer of greenhouse gas in the world! If it cannot be used to make new dishes or given away, then as much food waste as possible should be composted.

Energy use: Hospitality and catering provisions can save energy in many ways including using low-energy lighting, maintaining and upgrading equipment, putting lids on saucepans, batch baking and cooking.

Food miles: Using local suppliers means that the food does not have to travel as far from 'field to fork'.

Water usage: Use less in cooking by only just submerging vegetables or using a steamer. Use an energy and water efficient dishwasher.

Reuse

Food that is past its best, for example a brown banana, or scraps such as bones can be used to create new dishes which in turn will decrease food waste. www.lovefoodhatewaste.com has a vast range of recipe ideas for using surplus food.

- Bread: breadcrumbs, bread and butter pudding, bread sauce and croutons.
- Meat and poultry: bones can be used to make stocks.
- Fruit: banana muffins, apple crumble, fruit coulis, smoothies.
- Vegetables: bubble and squeak, vegetable stock, vegetable bakes, omelettes.
- Eggs: whites can be used to make meringue; yolks can be used to make mayonnaise.

Recycle

Many hospitality and catering provisions have separate bins for recyclable materials. Professional kitchens should also have areas to separate waste into recyclable, non-recyclable and compostable materials. All staff should be trained to know how to dispose waste correctly.

Coffee grounds can be composted. Compost can be used to grow fruit, vegetables and herbs for use in the kitchen.

Jars and plastic containers can be used for storage in the kitchen. Glass bottles can be used to hold flowers or candles as table decorations.

Too Good To Go, *Karma* and *Olio* are apps used by restaurants and supermarkets. Customers can buy discounted food which would otherwise go into landfill.

Level 1/2 Hospitality and Catering – Unit 2-2.2.2:
How to plan production

wjec cbac eduqas

You need to be able to plan dishes for a menu as well as know, understand and include the following:

Commodity list with quantities

This means naming all the ingredients needed to make all dishes and how much of each one e.g. grams (g), ounces (oz), millilitres (ml), etc.

Timing

You need to state realistic timings of how long each step is likely to take throughout your plan to give accurate information of how long your dishes take to complete.

Contingencies

This means stating, in the plan, what you would do to deal with a problem if something were to go wrong.

Mise en place

This is all the preparation you undertake before cooking. Examples of this include weighing out ingredients, collecting equipment and washing hands.

Equipment list

Naming all pieces of equipment you would need to cook the dishes, which also includes specialist equipment such as pasta machines and ice cream makers as well as saucepans, chopping boards, knives, etc.

Cooking

Throughout your plan, you will need to state how you ensure food is cooked correctly, e.g. chicken is white in the middle, using a temperature probe, etc.

Health, safety and hygiene

Stating in the plan, points regarding the health, safety and hygiene. The use of temperature probes to ensure foods are cooked, correctly using colour coded chopping boards or washing hands after handling raw meat are a few examples.

Cooling and hot holding

Cooling dishes correctly within 1.5hrs to 8 degrees and keeping hot dishes for service at 63 degrees should be mentioned in your plan for relevant dishes, as well as how you would ensure these temperatures are met, e.g. by using temperature probes.

Quality points

These include naming any quality points to consider in the preparation, cooking and serving stage of the plan. Examples could include checking foods are in use by/best before dates, dishes are cooked to minimum temperatures, ingredients stored in correct places and correct temperature, etc.

Serving

Once you have finished cooking your dish or dishes, you need to state how you would present your dish/dishes, e.g. on plate, bowl, etc., as well as what decoration, garnishes and sauces you include before serving.

Sequencing or dovetailing

This means you fit together the different steps and activities in logical order when planning to cook more than one dish.

Storage

In your plan, you should state where different kinds of ingredients need to be stored, e.g. raw chicken in the fridge or frozen fruit in the freezer and at what temperatures these pieces of equipment need to be (fridge needs to be 0–5 degrees and freezer needs to be -18 degrees).

Level 1/2 Hospitality and Catering: Unit 2: 2.3.2 Presentation techniques

Creativity

It is said that 'we eat with our eyes'. Creativity in plating dishes enhances the diner's experience – diners want to be 'wowed' when their meal appears!

Serving dishes: Start with the plate – varied sizes, shapes and colours can add immediate impact to your dish. Dishes served in bowls or dessert glasses should be placed on a plate to aid serving.

Elements: Each dish will consist of several elements – the main protein, accompaniments, garnish and decoration.

Volume: Do not overcrowd the plate – leave some space so that the diner can see each element of the dish. The rule of thumb is that only two-thirds of the plate should be full.

Height: Food can be stacked to add height to the overall dish, but each element should be visible.

Colour: Accompaniments, garnishes and decoration can add colour to dishes where the main elements are similar in colour. An example is fish and chips: bright green peas and a slice of yellow lemon will enhance the overall appearance of the meal.

Functionality: The dish should be beautiful to look at, but easy for the diner to eat.

Temperature: Hot food should be served on hot plates. Cold food should be served on chilled plates.

Accompaniments

Accompaniments should be chosen to complement the main part of the dish. Examples include:

Carbohydrate accompaniments:

- Savoury: bread, dauphinoise potatoes, pilau rice.
- Sweet: shortbread, brandy snaps, macaron.

Fruit and vegetable accompaniments:

- Savoury: pea purée, roasted root vegetables, griddled asparagus.
- Sweet: berry compote, fruit kebabs, grilled peaches.

Sauces:

- Savoury: gravy, red wine jus, parsley sauce.
- Sweet: custard, salted caramel sauce, chocolate sauce.

Portion control

It is important that the customer is satisfied with their portion without the plate being overcrowded. Keeping portion control accurate allows hospitality and catering provisions to order adequate supplies of ingredients. Accurate portion control will also help prevent food waste.

Garnish

Garnishes are additions to a dish which both add to the overall taste and enhance the overall appearance.

Savoury: parmesan crisps, crispy onions, caviar, watercress, lemon wedges, fresh herbs, salsa, edible flowers.

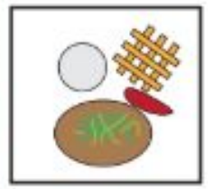
Sweet: chocolate dipped strawberries, tuile biscuits, chopped nuts, tempered chocolate work, spun sugar work, edible flowers.

Decoration

Decoration adds drama to the finished dish but it is not meant to be eaten or add to the overall flavour of the dish. Examples include:

- whole spices added to pilau rice
- gold leaf
- hollow eggshell as serving dish.

Plating styles



Classic

Freeform

Landscape

Food safety practices

During your practical session, you must demonstrate that you can work safely and hygienically. Your plan should show that you have thought about food safety and hygiene during all parts of your practical session. Your personal safety and hygiene practices will be observed during your practical session.

Personal safety and hygiene practices

Hands:

- Wash before, during and after preparing food especially after touching raw meat, dirty vegetables and fridge handles.
- Wash after going to the toilet.
- Wash after sneezing or blowing your nose.
- Wash after disposing of waste.

Clothing and hair:

- Clean apron and/or chef's whites.
- Non-slip closed-toe shoes.
- Tie hair back.
- Wear a bandana or hair net.

Cuts:

- Cover with a blue, waterproof plaster.

Equipment:

- Handle knives safely.
- Use oven gloves when carrying hot items.
- Keep electrical equipment away from water.
- Clean spills immediately.

Food safety and hygiene practices

Ingredients:

- Check use-by and best before dates.
- Check ingredients for freshness; no bruises on fruit, fish should not smell.
- Store correctly until needed.

Cleaning:

- Clean worktops before preparation.
- Clean workstation and equipment after preparing high-risk foods.
- Wash up throughout the session – do not leave it all until the end!

Temperatures:

- Keep high-risk foods in the fridge (0°C – 5°C) until needed.
- Use a temperature probe to check core temperature of high-risk foods.

Waste management:

- Keep waste separate from ingredients during preparation, cooking and serving.
- Recycle and compost waste if possible.

Management of accidents

- Ensure that you know the location of the First Aid box.
- Ensure that you know how to use a fire blanket or fire extinguisher.

Level 1/2 Hospitality and Catering: Unit 2: 2.4.1 Reviewing of dishes

Dish production

- Were you able to keep to your time plan?
- Did you have any problems during the practical? How did you resolve them?

Dish selection

- Did your dishes contain the right nutrients for your two groups?
- Were they expensive or cheap to produce?
- Did they contain seasonal or local produce?

Organoleptic

How did your dishes:

- Look (appearance)?
- Taste (flavour and texture)?
- Smell (aroma)?

Hygiene

- Did you follow all hygiene guidelines?
- Did you wear correct PPE?
- Did you wash up between jobs?

Reviewing of dishes

PEE: **P**oint, **E**vidence, **E**xplain

You need to write a self-reflection of how you performed during your practical session. There are 8 areas to consider when you write your review of your dishes.

Presentation

- Were the portions the right size for your two groups?
- How did you add colour to your dishes?
- Were your garnishes and decorations appropriate?

Health and safety

- Were you able to use equipment safely?
- Did you store ingredients correctly?

Waste

- Did you separate your waste into categories? (Food waste, recyclable materials, general waste.)
- Did you buy the right amount of ingredients?

Improvements

- If you made your dishes again, what would you do differently?
- If you had to do the task again, would you change your choice of dishes?
- Would you add additional accompaniments?

Level 1/2 Hospitality and Catering: Unit 2: 2.4.2 Reviewing own performance

Decision making

- What were your strengths in completing the written tasks?
- What were your strengths in choosing dishes?
- How could you improve weak decisions?
- Were the dishes easy to make together?
- What were the disadvantages of the chosen dishes?
- Did your dishes meet the needs of the provision?
- Did your dishes meet the needs of your two groups (nutrition and cost)?

Planning

Was the practical session plan in a logical order?

- Discuss your strengths.
- Discuss your weaknesses.
- Suggest improvements.

Were you able to keep to the plan during the practical session?

- Discuss your strengths.
- Discuss your weaknesses.
- Suggest improvements.

Organistation

How did you organise your written tasks?

- Discuss your strengths.
- Discuss your weaknesses.
- Suggest improvements.

How did you organise your workstation during the practical session?

- Discuss your strengths.
- Discuss your weaknesses.
- Suggest improvements.

Time management

How did you manage your time when completing the written tasks?

- Discuss your strengths.
- Discuss your weaknesses.
- Suggest improvements.

How did you manage your time during the practical session?

- Discuss your strengths.
- Discuss your weaknesses.
- Suggest improvements.

Level 1/2 Hospitality and Catering:
Unit 2-2.2.1: Factors affecting menu planning

Factors affecting menu planning

You need to be aware of the following factors when planning menus:

- **cost** (ingredients as well as business costs)
- **portion control** (value for money without waste)
- **balanced diets/current national advice**
- **time of day** (breakfast, lunch, and dinner menus as well as small plates and snacks)
- **clients/customers** (a menu with prices that will suit the people who visit your establishment).

Equipment available

You need to know and understand the type of equipment needed to produce a menu. The choice of dishes will be influenced by the equipment available to the chef.

This includes kitchen equipment such as:

- hobs, ovens, and microwaves
- fridge, freezer and/or blast chiller
- specialist equipment, for example a *sous vide* or pizza oven
- hand-held equipment, for example electric whisks or hand-blenders
- other electric equipment, for example food processors.

Skills of the chef

The skills of the chef must be suited to the type of provision and the menu offered.

A Michelin starred restaurant will require a chef who has complex skills in preparation, cooking and presentation of dishes.

A café will require a chef who has a range of medium and complex skills to produce a suitable menu.

A large restaurant will normally have a full kitchen brigade while a smaller establishment may only have a single chef with one or two assistants.

Time available

The type of provision will influence the amount of time a customer may be willing to wait for their dish to be prepared. Can the chef prepare, cook, and present more than one dish at the same time? Can some items be made in advance?

Time of year

The time of year can affect menu choices. Light and cold dishes such as salads are better suited to the summer months. Hearty dishes such as stews are more suited to the winter. Special dishes linked to holidays such as Christmas and Valentine's Day may also be included. The availability of **seasonal** produce can also affect menu choices as certain commodities, for example strawberries, are less expensive when in season.

Environmental issues

The chef will need to think about environmental issues when planning a menu. Can the chef **reduce** the amount of ingredients bought as well as reducing food waste? Can the chef **reuse** ingredients to create new dishes for example stale bread made into bread-and-butter pudding? Can the kitchen **recycle** waste wherever possible? Running the kitchen sustainably will save money.

Organoleptic properties

Organoleptic properties are the sensory features of a dish (**appearance**, **aroma**, **flavour**, and **texture**).

The chef will need to think about how the dish will look and taste. Is there a range of colours? Do the flavours go well together? Are there a variety of textures?

Level 1/2 Hospitality and Catering:
Unit 2-2.3.1: Practical skills and techniques

Skills and techniques

You need to be able to identify the different types of skills you need to produce your selected dishes. Some dishes will require the use of more complex skills. You will need to demonstrate a range of skills when producing your chosen dishes.

Preparation and cooking skills are categorised as follows: **basic**, **medium**, and **complex**.

Presentation

You should know and understand the importance of using the following appropriate presentation techniques during the production of dishes:

- creativity
- garnish and decoration
- portion control
- accompaniments.

Basic preparation skills and techniques

Blending, beating, chopping, grating, hydrating, juicing, marinading, mashing, melting, peeling, proving, sieving, tenderising, trimming, and zesting.

Medium preparation skills and techniques

Baton, *chiffonade*, creaming, dehydrating, deseeding, dicing, folding, kneading, measuring, mixing, puréeing, rub-in, rolling, skinning, slicing, spatchcocking, toasting (nuts/seeds) and weighing.

Complex preparation skills and techniques

Brunoise, crimping, de-boning, filleting, *julienne*, laminating (pastry), melting using *bain-marie*, mincing, piping, and segmenting, shaping, unmoulding and whisking (aeration).

Basic cooking skills and techniques

Basting, boiling, chilling, cooling, dehydrating, freezing, grilling, skimming, and toasting.

Medium cooking skills and techniques

Baking, blanching, braising, deglazing, frying, griddling, pickling, reduction, roasting, sautéing, steaming, stir-frying, and using a *sous vide* (water bath).

Complex cooking skills and techniques

Baking blind, caramelising, deep fat frying, emulsifying, poaching, and tempering.

English

Co-op Academy Walkden English Knowledge Organiser

Year 10 Autumn: The Human Experience

A Christmas Carol

Plot
A Christmas Carol is a novella by Charles Dickens. It tells the story of Ebenezer Scrooge, a bitter and miserly businessman, who is visited by the ghost of his former business partner, Jacob Marley, and three spirits on Christmas Eve. Through these encounters, Scrooge undergoes a transformative journey that leads him to embrace the spirit of Christmas and become a kinder, more compassionate person. The novella explores themes of redemption, the importance of generosity and empathy, and the power of second chances. Dickens' intention was to critique the societal greed and indifference prevalent during the Victorian era and to promote the spirit of goodwill and charity during the holiday season.

Characters

- **Ebenezer Scrooge:** Miserly, cold-hearted miser transformed by Christmas spirits.
- **Bob Cratchit:** Humble clerk, devoted family man working for Scrooge.
- **Tiny Tim:** Cratchit's ailing, hopeful son symbolizing the spirit of Christmas.
- **Jacob Marley:** Scrooge's deceased partner, warns him of the consequences of greed.
- **Ghost of Christmas Past:** Illuminating spirit, reveals Scrooge's forgotten memories.
- **Ghost of Christmas Present:** Jolly and festive, showcases the joy of the holiday season.
- **Ghost of Christmas Yet to Come:** Silent and ominous, represents the future's unknown fate.
- **Fred:** Scrooge's cheerful nephew, embodies the Christmas spirit and generosity.
- **Fezziwig:** Jovial employer, contrasts with Scrooge, emphasizing the joy of giving.
- **Belle:** Scrooge's lost love, symbolizing the cost of his obsession with wealth.

Power and Conflict Poetry

The Emigrée
"The Emigree" by Carol Rumens is a poem narrated by a displaced person who nostalgically recalls her homeland. The speaker describes a utopian past, contrasting it with the harsh reality of exile. The poem explores themes of memory, identity, and the impact of political upheaval on an individual's perception of home.

Checking Out Me History
"Checking Out Me History" by John Agard is a powerful poem exploring the reclaiming of personal and cultural history. The speaker challenges imposed historical narratives, asserting the importance of understanding his own heritage, from Toussaint L'Ouverture to the struggles against colonization. The poem questions the Eurocentric portrayal of history.

Tissue
My Last Duchess is a dramatic monologue by Robert Browning. It reveals the dark thoughts and controlling nature of a wealthy duke as he discusses his late wife. Through his chilling recounting of her life and his possessive attitude, the poem delves into themes of power, jealousy, and male dominance in relationships.

English Language Paper 1

Question 1: Select four pieces of information from a section of the text.
Question 2: Analyse the writer's language choices in presenting a thing or concept in a section of the source.
Question 3: Analyse the writer's structural choices in the whole text.
Question 4: Form your own impressions based on the statement; identify methods and explain how the method creates your ideas; evaluate what the writer has achieved and how.
Question 5: Produce a piece of descriptive or narrative writing based on an image or writing task.

Geography

Paper 1 Living with the physical environment. The Living World **Ecosystems** Knowledge Organiser

Keywords

Abiotic: non-living things.

Biotic: living things

Consumer Creature that eats animals and/or plant matter. .

Ecosystem: A community of plants and animals that interact with each other and their physical environment.

Ecotourism: Responsible travel to natural areas that conserves the environment, sustains the wellbeing of the local people, and may involve education. It is usually carried out in small groups and has minimal impact on the local ecosystem.

Mineral extraction: The removal of solid mineral resources from the earth.

Biodiversity: The variety of life in the world or a particular habitat.
Biomass: material from living things such as plants and animals.

Decomposer: an organism such as bacteria or fungus that breaks down dead tissue releasing nutrients.

Global ecosystem: Very large areas of the Earth's surface with animals and plants adapting to their environment.
Producer: An organism or plant that is able to absorb energy from the sun through photosynthesis.

HEP: Hydroelectric Power

Biome	Location	Temperature	Rainfall
Temperate forest	Between latitudes 40° -60° north of Equator.	Warm summers + mild winters (5-20°C)	Variable rainfall (500-1500m /year)
Tropical rainforest	Centred along the Equator.	Hot all year (25-30°C)	Very high (over 200mm/year)
Hot desert	Found along the tropics of Cancer and Capricorn.	Hot by day (over 30°C) Cold by night	Very low (below 300mm/year)

Epping forest

An ancient deciduous woodland northeast of London which has native tree species including Oak and Elm, there are many insects, mammals, birds and amphibians. There are over 700 species of fungi.
Epping forest is used for recreation such as, walking, camping, horse riding and cycling, as well as conservation.
Epping Forest is managed to conserve the environment through pollarding (trees have branched cut at shoulder height to protect new shoots from deer) and to encourage growth of the trees.
Visitors are encouraged to stick to footpaths and cycle routes. There are designated picnic, BBQ and campsite areas.

Ecosystems take hundreds of years to develop, a sudden change can lead to imbalance which can threaten its ability to thrive.
Natural changes: weather events such as flooding and drought, fires caused by lightning strike, spread of invasive species, climate change.
Human changes: Land use change such as deforestation and hedgerow removal, fertilisers affecting soil and water, hunting animal, introducing new species, activities which lead to climate change.

An **ecosystem** is a natural system made up of plants, animals and the environment they live in. Climate, water, soil, plants and animals are interlinked and depend on each other for survival.

Biotic components in an ecosystem are linked by food chains and food webs.
A **food chain** shows the direct link between different element that rely on each other, so you can see who is eating whom.
Food webs show the complex hierarchy of plants and animals that rely on each other for a source of food. Food webs show the interconnections of food chains.

In ecosystems **nutrients** are food which is used by plants and animals to help them to grow. Nutrients come from rainfall as chemicals are washed out of the atmosphere and the weathering of rock which releases chemicals into the soil.
The **nutrient cycle** shows how these nutrients are then stored, used and recycled in ecosystems. Plants take in **nutrients** to build into new organic matter. Nutrients are taken up when animals eat plants and then returned to the soil when animals die and the body is broken down by **decomposers**

Homework

1: Knowledge Organisers
These provide the basic knowledge for each topic which needs to be known off by heart. This may include, key words, key concepts, costs and benefits.

2: Meanwhile, elsewhere
What we learn in our lessons only offers a glimpse of the world. To widen our understanding, one page research sheets will be used to explore what else was going on around the world at the same time as the topic we are studying. These need to be researched using the links and resources provided and completed.

3: Revision
Preparing for Geography assessments is an essential part of each topic, as these assessments allow teachers and pupils the chance to check their progress in Geography. Revising gives you the chance to show off what you know.

Read

There is no Planet B - Mike Berners-Lee

Watch

Earth: The Power of the Planet

Panorama: Electric Car Revolution

Listen

Shared Planet**:**
https://www.bbc.co.uk/programmes/b02xf2qg

Geography Ninja

Paper 1 Living with the physical environment. The Living World Tropical Rainforests, Hot Deserts, Desert Fringe

Keywords

Commercial Farming: large scale agriculture using pesticides, fertilisers and machinery to produce crops for profit
Debt reduction Countries are relieved of some of their debt in return for protecting their rainforests.

Eutrophication: water becomes overly enriched with minerals and nutrients which induce excessive growth of algae. This process may result in oxygen depletion of the water body.

Soil erosion: Removal of topsoil faster than it can be replaced, due to natural (water and wind action), animal, and human activity.

Sustainability: Actions and forms of progress that meet the needs of the present without reducing the ability of future generations to meet their needs.

Carrying capacity: the maximum number of people an area of land can support before environmental damage occurs

Appropriate technology: (Also called Intermediate technology) Technology that is suited to the needs, skills, knowledge and wealth of local people in the environment in which they live.

Subsistence farming: agriculture producing food and materials for the benefit only of the farmer and his family.
Desertification: The process by which land becomes drier and degraded, as a result of climate change or human activities, or both.

Causes of Deforestation

Logging: timber is harvested to create commercial items such as furniture.
Mineral Extraction: precious metals are mined for commercial sale.
Energy Development: Dams are built across the Amazon river to generate **HEP**. Trees are removed to prevent interception.
Agriculture: Trees are cleared to make way for commercial crops, cattle ranches and biofuel crops. All provide profit.
Transport: Trees are cleared to construct roads, rail, and airports. Transport links allow access to settlements, and the export of materials.

Uses of Hot Desert Ecosystems - Case Study - The Western Desert

Opportunities: access to aquifers and irrigation canals creates farming opportunity such as fruit farms in coachella valley - farmers are allocated 80% of colorado water, despite only making up 10% of the economy
Mineral extraction provides some employment but is not fully utilised due to conflict with other industries like tourism Energy harnessed from solar farms and HEP Hoover dam
Tourism is most important sector, especially Las Vegas that attracts 37m visitors annuall
Challenges: Low population density mean has led to poor infrastructure like roads and high temperatures make it dangerous place to break down. Settlements were founded in slight cooler areas and near water sources, but means large areas of arid rural land has low carrying capacity
Low precipitation means reliance on aquifers and canals to distribute water effectively
Climate change as scientists predict that reduced rainfall may occur in areas where water levels are already naturally low, aquifers and reservoir water levels are falling

Uses of Desert Fringe areas - Case Study: The Sahel

Opportunities
Due to diverse animal and plant species, some areas can be exploited for tourism e.g. safaris. The region is also well suited to sustainable pastoral farming and small scale arable farming.
Challenges
Humans can have negative effects on the Savanna. Particularly through farming, ploughing and overgrazing their cattle. When the soil is ploughed up, it breaks up and is therefore very easily eroded. This affects the ecosystem because vegetation will be unable to grow, and it leads to desertification of the soil.

Homework

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Geography Ninja

History

GCSE Knowledge Organiser: Conflict and tension between East and West 1945-1972

Key Events

1	1945	**Atom bombs** are dropped by USA on the Japanese cities of Hiroshima and Nagasaki leading to the end of WWII.
2	1945-47	**Soviet Expansion into Eastern Europe** begins as the Red Army remains in eastern European countries that have been liberated from Nazi control. Communist governments are installed as opponents are executed and elections are rigged.
3	1948-9	**Berlin Blockade and Airlift** reflects the increased tension between East and West and proves containment is working.
4	1950-53	**The Korean War :** a proxy war begins between North and South Korea (North supported by USSR and China, South supported by USA).
5	1956	**Hungarian Uprising** Protesters in Hungary call for new freedoms and greater independence. This is put down brutally by the USSR.
6	1950s	**The arms race** continues more advanced weapons are developed on both sides including the hydrogen bomb to raise tensions further
7	1960	**U2 Crisis :** American U2 spy plane shot down over Russia and pilot, Gary Powers, captured. When Paris Peace Summit meets 13 days later, Khrushchev demands Eisenhower apologises. Eisenhower refuses so Khrushchev storms out.
8	1962	**Cuban Missile Crisis:** US sets up naval blockade to prevent Soviet ships delivering missiles to Cuba. Khrushchev warns US that Soviets would see it as an act of war. Tense stand off for 10 days between countries until countries agree to remove missile for countries within range.
9	1971	**Detente and SALT 1** Detente was the cooling of tensions between US and USSR under the leadership of Nixon and Brezhnev. SALT 1 was a conference where the Anti Ballistic Missile Treaty was signed.

Key Words

1.	Cold War	Term used to describe the tensions between the Soviet Union and the West 1945-1991
2.	**Capitalism**	The economic system followed by the West during the Cold war. People have the right to start/own businesses in a free market.
3.	**Communism**	An economic and political system in which there is no private ownership, people contribute based on their ability and take only what they need.
4.	**Eastern Bloc**	Group of countries in Eastern Europe that were allied because of shared interests during the Cold War.
5.	**United Nations**	International organisation founded in 1945 to stop conflict and encourage cooperation between countries.
6.	**Domino Theory**	Theory followed in the USA from Eisenhower onwards that when one country falls to Communism, its neighbours would fall too, like dominoes.
7.	**Proxy War**	An indirect war between the superpowers where the USA or USSR fund the other enemy eg Korean War, Vietnam War.
8.	de-Stalinisation	The period after Stalin's death in which Khrushchev tried to make changes to the USSR
9.	**Unilateral disarmament**	The policy of giving up nuclear weapons without an agreement an agreement from other countries to do the same
10.	**Detente**	French word meaning release of tension. Used to describe the easing of hostilities between US and USSR under the leadership of Nixon and Brezhnev.

Homework for Conflict and tension between East and West 1945-1972

There are three types of homework set for the GCSE America unit:

1. Knowledge Organisers

These provide the basic knowledge for each topic. This may include a timeline, key words, key concepts and summaries. These are tested in weekly quizzes.

2. Read Watch Listen

A selection of clips, podcasts and websites about the content of the unit are available to supplement and enhance your learning. One should be accessed a fortnight to increase your understanding of topics studied.

3. Revision

Preparing for history assessments is an essential part of each topic as each assessment allows teachers and students to see their progress in history. It is crucial this revision is done so that our students can show what they know.

Read

Odd Arne Westad: 'The Cold War A World History'

Watch

**'CNN Cold War' YouTube – 24 part in-depth documentary series covering the Cold War. Could be especially useful to watch an episode on any event you are not confident on.
The World at War: iconic series on WW2. Episode 24 and Episode 25 are very relevant to your course, look on YouTube.
Busting the Berlin Wall: Amazing Escape Stories. Google it.

Listen

Podcasts

**Versus History features History teachers debating historical arguments. It's aimed at A Level as well as GCSE, so stretch yourself! There are episodes on all sorts of topics, the easiest way to browse is to press 'Control F' and search key words on this page http://www.versushistory.com/podcasts.html

History Rocks: Short 15 minute podcasts on the Cold War. A Level focused but still great to challenge yourself and build-up in-depth knowledge.

GCSE History Revision Podcast (has an image of Nixon looking grumpy: scroll through their back catalogue for Cold War and Germany.

Dan Snow's History Hit: Browse back catalogue for Cold War and range of topics. https://www.historyhit.com/podcasts/

Key People	
	Joseph **Stalin** - 1924–1953 - **USSR**
	Nikita **Khrushchev** - 1955**–**1964. -**USSR**
	Leonid Brezhnev - 1964–1982. - **USSR**
	Harry S. **Truman** - 1945–**1953**. - **USA**
	Dwight D. **Eisenhower** - 1953–1961. - **USA**
	John F. **Kennedy** - 1961–1963. - **USA**
	Lyndon B. **Johnson** - 1963–1968. - **USA**
	Richard **Nixon** - 1969–1974. - **USA**
	Winston **Churchill** 1940-1945 & 1951-1955 **UK**
	Clement **Attlee** 1945-1951 **UK**

Business Studies

Business Studies Knowledge Organiser here

Computer Science

Computer Science Knowledge Organiser here

Creative iMedia

OCR GCSE – Creative iMedia – R093 - LO1 Understand the purpose and content of pre-production

Mind Maps / Spider Diagrams

What is a mind map? A mind map or spider diagram is a way of organising thoughts and ideas. It is based around a central theme (or **node**) and has **branches** off for the different aspects using **sub-nodes**.

What is the purpose of a mind map?

- To quickly generate outline ideas.
- To develop and show links between different thoughts, aspects and processes of a project.

When would I use a mind map?

- To show the development and options for ideas within any project.
- To show the connections and links between different parts of the project.

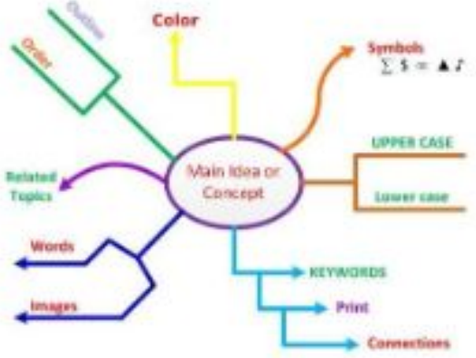
What is the content of a mind map?

- Central node with the main theme.
- Sub-nodes with interconnecting lines or branches for the different parts.
- Text at each sub-node for key points, ideas, activities, requirements etc.
- Images can also be used on sub-nodes.

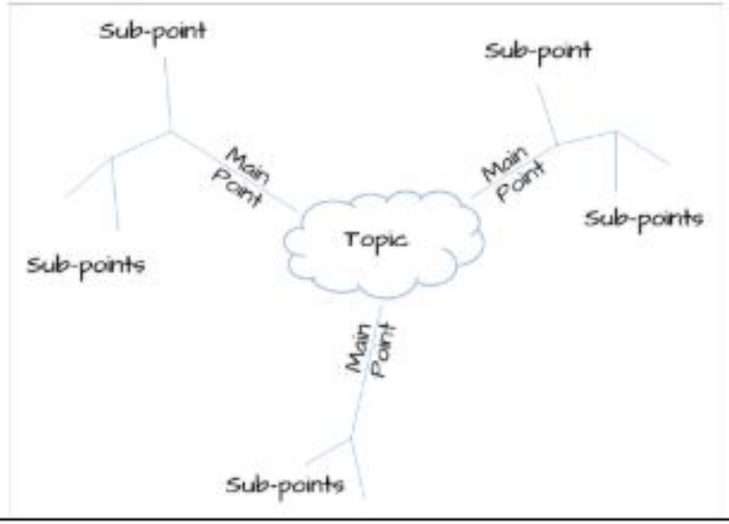
Keywords

Node	*Sub-node*	*Branch*
A point on the mind map that has some information or an idea.	A point that also has information or an idea but must be related to the node that it is connected to.	A line that joins the node to the sub-node.

Examples of how a Mind map should look:



Labelling a Mind Map



OCR GCSE – Creative iMedia – R093 - LO1 Understand the purpose and content of pre-production

Mood Board

What is a mood board? A mood board is a collection of sample materials and products.

What is a physical mood board?	*What is a digital mood board?*	*What is the purpose of a digital mood board?*	*When could I use a mood board?*
This is an example of a notice board or a large piece of paper of card, using pictures and samples that are fixed to it.	This is an example which has been created in any software application that supports multiple images, graphics, text and other content.	• To assist the generation of ideas by collecting a wide range of material that will give a feel for what is needed. • To stimulate creativity and innovative approaches.	• For any creative media project as a starting point. • To collect samples, materials and a range of relevant content. • As a constant reminder of possible styles.

NOTE: The use of a mood board is NOT to show what a product will look like.

What type of content would I include within a mood board?

- Images – from anything that is relevant or related, such as existing similar products, photographs, logos, screenshots from films, advertisements, posters.
- Colours – especially those that fit the brief or have been used before in a similar product.
- Text, keywords, fonts and styles.
- Textures, fabrics and other materials.

For a digital mood board – potentially sound and video clips.

Examples of how a Mood Board should look:

Digital Mood Board

Physical Mood Board

OCR GCSE – Creative iMedia – R093 - LO1 Understand the purpose and content of pre-production

Scripts

What is a Script? A script is a piece of written work that can be for a movie, audio, audio-visual product or screenplay. It is often the starting point for any of these products and includes information about the media product in a style and format that follows some layout conventions. It is often used by a number of different people involved in the actual production, who will analyse the script and break it down into sections with information that is needed.

What is the purpose of a Script?

- To identify the location where the action takes place.
- To identify who will be in the scene, e.g. actors, **narrators**.
- To provide stage directions for actors and production crew.
- To provide **dialogue** (i.e. speech) for actors and other characters.

When would I use a Script?

- Any moving product with dialogue (spoken words), actions and a timeline, for example:
  - Video products, e.g. advertisements and films.
  - Audio products, e.g. advertisements, jingles and radio play.
  - Animation products, e.g. short films.
  - Computer game with a short story-telling scene or interactions between game characters.

What type of content would you include in a Script?

- Set/location where the action takes place, e.g. INT (Interior) & EXT (Exterior).
- Scene descriptions
- Scene / stage directions, i.e. what happens in the scene.
- Camera shot types (close up, mid, long)
- Camera movement (over shoulder, low angle, aerial).
- Sounds and sound effects (dialogue, ambient, sound, music)
- Names of actors / characters
- Dialogue, i.e. speech and how it is spoken.

Keywords

Narrator	*Dialogue*	*Voiceover*
A person that tells the story who is not part of, or seen, in any action. Typically found in a screenplay or audio-visual product.	The combination of what is spoken by a character in the script together with how they say it, that is, identifying any emotion, facial expressions, etc.	The words spoken by an unseen person to accompany an audio or audio-visual product. Often used in radio adverts and jingles.

The format and layout of the script should follow some conventions. For example, the location, camera shot and directions all start in the left-hand margin but names of actors and what they say are intended across the page. This makes it easier and quicker to scan and follow.

Examples of how a Script should look:

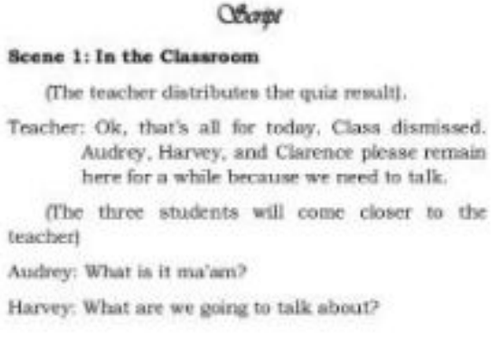
Scene 1

The drawing room of Lady and Lord Montague, which is furnished with plush carpets, silk curtains and beautifully carved antique furniture. Lord Montague is sitting on a velvet sofa, smoking a pipe and reading the paper. Lady Montague is sitting at a grand piano, trying but failing to play a melody.

Lady Montague: Try as I might, I simply cannot get this blessed melody right!

Lord Montague: You are trying too hard, darling. Relax, look at the notes and let your fingers find their way to the right notes. Stop trying to get it right. Just feel the music.

Lady Montague: *(pushing a strand of hair from her face wearily)* Yes. Perhaps you are right.



Script

Scene 1: In the Classroom

(The teacher distributes the quiz result).

Teacher: Ok, that's all for today. Class dismissed. Audrey, Harvey, and Clarence please remain here for a while because we need to talk.

(The three students will come closer to the teacher)

Audrey: What is it ma'am?

Harvey: What are we going to talk about?

OCR GCSE – Creative iMedia – R093 - LO1 Understand the purpose and content of pre-production

Storyboards

What is a Storyboard? A storyboard is used to illustrate a sequence of moving images, and has a flow of scenes that follow a timeline. This is different to a visualisation diagram, which would only be for a single static scene.

What is the purpose of a Storyboard?

- To provide a visual representation of how a media project will look along a timeline.
- To provide a graphical illustration of what a sequence of movements will look like.
- To provide guidance on what scenes to film or create.
- To provide guidance on how to edit the scenes in a story.

When would I use a Storyboard?

- Any project where movement or a sequence is required, especially along a timeline, for example:
  - Video projects
  - Digital animation
  - Comic books to illustrate the story.
  - Computer games, i.e. to illustrate the game flow, narrative or story
  - Multimedia products, i.e. to illustrate the sequence between scenes.

What type of content would you include in a Storyboard?

- Images, i.e. for the content of each scene.
- Locations.
- Camera shot types and angles
- Camera Movement
- Shot length and timings
- Lighting
- Sound

Example of how a Storyboard should look:

Maths

Maths Foundation level

Percentages - Click here

Area and Perimeter - Click here

Circumference and Area - Click here

Volume - Click here

Coordinates and Linear Graphs - Click here

Real life graphs - Click here

Maths Higher level

Calculating with Percentages - Click here

Circumference and Area - Click here

Volume - Click here

Linear Graphs - Click here

Sequences - Click here

French

GCSE French Knowledge Organiser – Module 3 *Jours ordinaires, jours de fête*

Theme: Identity and Culture

Repas et nourriture
Je bois/mange/prends - I eat/drink/have …
du café/thé/lait – coffee/tea/milk
du jus d'orange – orange juice
du pain grillé/beurre – toast/butter
du yaourt/miel – yoghurt/honey
du poulet/jambon – chicken/ham
du poisson – fish
du saucisson/fromage – sausage/cheese
du pain/riz – bread/rice
de la confiture/glace – jam/ice cream
de la soupe/viande – soup/meat
de la tarte au citron – lemon tart
de l'eau (minérale) – (mineral) water
des fruits/bananes – fruit/bananas
des fraises – strawberries
des pommes/poires – apples/pears
des légumes – vegetables
des champignons – mushrooms
des crudités/oeufs – crudités/eggs
des pommes de terre – potatoes
des céréales/pâtes – cereal/pasta
Je ne mange pas de viande – I don't eat meat
Je suis végétarien(ne) – I am vegetarian
Je voudrais – I would like …
un paquet/kilo de – a packet/kilo of
un litre de – un litre de
une bouteille de – a bottle of
une boîte de – a box of
cinq cents grammes de – 500g of
Il faut aller … - You need to go …

Les vêtements
Je porte … - I wear/am wearing …
un costume – a suit
un imperméable - a raincoat
un jean (moulant) - a pair of (skinny) jeans
un manteau/un pantalon – a coat/pair of trousers
un polo/un pull – a polo shirt/a jumper
un sac à main/un short – a handbag/a pair of shorts
un sweat à capuche – a hoody
un tee-shirt – a T-shirt
une casquette – a cap
une ceinture – a belt
une chemise/une écharpe - a shirt/a scarf
une robe/une veste – a dress/a jacket
des baskets (de marque) - (designer) trainers
des boucles d'oreille – earrings
des bottes – boots
des chaussettes – socks
des chaussures – shoes
des lunettes de soleil - sunglasses
rayé(e)(s) - striped
une montre – a watch

Les couleurs
blanc(he)(s) - white
bleu(e)(s) - blue
gris(e)(s) - grey
jaune(s) - yellow
marron – brown
mauve(s) - purple
noir(e)(s) - black
orange – orange
rose(s) - pink
rouge(s) - red
vert(e)(s) - green
clair – light
foncé - dark
multicolore(s) - multi-coloured

Au magasin de vêtements
la taille – size
la pointure – shoe size
les cabines d'essayage – changing rooms
une taille moyenne – medium size
Il y a une trou – There's a hole (in it)
Il y a une tache – There's a stain (on it)
Il/Elle est/Ils/Elles sont … It is/They are …
trop petit(e)(s) - too small
trop grand(e)(s) - too big
cassé(e)(s) - broken
Je voudrais … - I would like
échanger (la jupe/le pantalon) - to exchange (the skirt/the trousers)
un remboursement – a refund
Je préfère … - I prefer
faire les magasins – to go to the shops
faire mes achats en ligne – to do shopping online

La vie quotidienne
J'ai cours tous les jours sauf … - I have lessons everyday except …
Les jours d'école, … On school days …
je dois me lever tôt - I have to get up early
je dois quitter la maison à (7h30) - I have to leave the house at (7.30)
Le soir, … - In the evening …
je dois faire mes devoirs – I have to do my homework
je dois aider ma mère - I have to help my mother
je peux regarder un peu la télé - I can watch a bit of TV
Le samedi/Le dimanche … - On Saturdays/On Sundays ...
je peux rester au lit – I can stay in bed
je peux retrouver mes copains/copines – I can meet up with my friends
je dois ranger ma chambre – I have to tidy my room
je peux écouter de la musique – I can listen to music

GCSE French Knowledge Organiser – Module 3 *Jours ordinaires, jours de fête* Theme: Identity and Culture

Les fêtes
Noël - Christmas
la veille de Noël - Christmas Eve
Pâques - Easter
Divali – Diwali
Hanoukka – Hanukkah
Aïd-el-Fitr – Eid al-Fitr
le 6 janvier/la fête des Rois – Epiphany
le premier avril – April Fool's Day
la Chandeleur – Candlemas
le Nouvel An – New Year
la Saint-Sylvestre – New Year's Eve
la Saint-Valentin – Valentine's Day
la fête des mères - Mother's Day
le 14 juillet/la fête nationale française - Bastille Day, 14 July
On est chrétiens - We are Christian
On est juifs – We are Jewish
On est musulmans – We are Muslim
Chez moi,/nous, … - At my/our house …
on fête (Noël/Divali, etc) - we celebrate (Christmas/Diwali, etc)
on décore le sapin de Noël - we decorate the Christmas tree
on s'offre des cadeaux – we give each other presents
on ouvre les cadeaux – we open the presents
On cherche des oeufs dans le jardin – we look for eggs in the garden
On prépare/mange … - We prepare/eat
de la dinde rôtie - roast turkey
Une bûche de Noël au chocolat – a chocolate Yule log

Un repas spécial
Je vais/On va apporter … - I am/We are going to bring …
du jambon/du pâté – ham/pâté
du saucisson – salami
des baguettes – baguettes
des biftecks – steaks
des saucisses – sausages
des salades composées - mixed salads
une salade de riz – a rice salad
du concombre – cucumber
une laitue – a lettuce
des tomates/des oignons – tomatoes/onions
des poivrons – peppers
des champignons – mushrooms
des abricots – apricots
des framboises – raspberries
du raisin – grapes
une tarte aux fruits – a fruit tart

Les magasins
le marché/le supermarché - market/supermarket
la boucherie – butcher's
la boulangerie - bakery/baker's
la charcuterie – pork butcher's/delicatessen
la pâtisserie - cake shop/pastry shop
L'épicerie - greengrocer's

Fêter le 14 juillet
On va aller au bal – W're going to the dance
On va regarder le feu d'artifice – We're going to watch the fireworks
On va s'amuser – We're going to have fun
On va inviter … - We're going to invite …

Félicitations!
l'anniversaire – birthday
le mariage - wedding/marriage
La fête - party
C'était mon anniversaire – It was my birthday
J'ai reçu beaucoup de cadeaux – I received lots of presents
Ma soeur a eu son premier bébé - My sister had her first baby
Je suis allé(e) au mariage de (ma cousine) - I went o (my cousin's) wedding
Mon frère s'est pacsé avec son compagnon – My brother entered into a civil partnership with his partner
Il y avait … - There was/were …
beaucoup d'invités - lots of guests
un gâteau spécial - a special cake
C'était génial - It was great

Les mots essentiels
avec – with
pour – for
donc, alors – so, therefore
car/parce que – because
malheureusement – unfortunately
Parfois/quelquefois – sometimes
quelque(s) - some/a few
beaucoup de – lots of
en ce moment – at the moment
en été - in summer
avant-hier – the day before yesterday
il y a (trois) jours - (three) days ago
Je suis désolé(e) - I'm sorry
bien sûr - of course
quel/quelle/quels/quelles …? - which …?
ce/cet/cette/ces - this/these

Spanish

Mi Colegio

Zona Cultura

El sistema de educación en España tiene cuatro etapas:


Educación infantil
0–6 años


Educación primaria
6–12 años


Educación Secundaria Obligatoria (ESO)
12–16 años


Bachillerato o formación profesional
16–18+ años

La Gramática

Negatives

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Negatives are often used in a 'sandwich', around the verb.

***No** hay **nada**.*	There **isn't anything**.
***No** tenemos **ni** tabletas **ni** ordenadores.*	We **don't** have **either** tablets **or** computers.

Tampoco (not either) and ***nunca*** (never) often go in front of the verb.

***Tampoco** hay piscina.*	There **isn't** a swimming pool **either**.
***Nunca** estudia.*	He/She **never** studies.

Llevo… Llevamos… Tengo que llevar… Tenemos que llevar…	un jersey (de punto) un vestido una camisa una camiseta una chaqueta (a rayas) una corbata una falda unos pantalones unos calcetines unos zapatos unos vaqueros unas medias
(No) Me gusta porque es…	cómodo / incómodo bonito / feo informal / formal elegante práctico

¿Qué opinas (**del** dibujo, de la geografía, de los idiomas, de las empresariales)?				
(No) Me gust**a** (No) Me interes**a** Me encant**a**	**el** dibujo, **el** inglés, **la** geografía, **la** tecnología, **la** biología, **la** música, **la** religión, **la** historia etc.	porque	es	práctic**o**/**a**, creativ**o**/**a**, aburrid**o**/**a** útil, fácil, difícil importante, interesante
(No) Me gust**an** (No) Me interes**an** Me encant**an**	**los** idiomas, **las** empresariales, **las** ciencias		son	práctic**os**/**as**, creativ**os**/**as**, aburrid**os**/**as** útil**es**, fácil**es**, difícil**es** importante**s**, interesante**s**

Comparatives

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To make comparisons, use the following:

más (+ adjective) *que…*	more… than…
menos (+ adjective) *que…*	less… than…
mejor que…	better than…
peor que…	worse than…
tan (+ adjective) *como…*	as… as…

*Mi profe de español es **más severo que** mi profe de dibujo.*
My Spanish teacher is **stricter than** my art teacher.

*Mi profe de ciencias es **tan serio como** mi profe de inglés.*
My science teacher is **as serious as** my English teacher.

The near future

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Use the **near future tense** to say what you are going to do. Use the present tense of ***ir*** + *a* + infinitive.

voy		
vas		
va		*visitar*
vamos	*a*	*comer*
vais		*salir*
van		

Topic: What school is like

Instructions to candidates:

You are talking to a Spanish friend about school. The teacher will play the part of your Spanish friend and will speak first.

You must address your Spanish friend as *tú*.

You will talk to the teacher using the five prompts below.

- where you see – **?** – you must ask a question
- where you see – **!** – you must respond to something you have not prepared

Task

Estás en casa de un/a amigo/a español/a. Hablas con tu amigo/a sobre el colegio.

1 Tu colegio – tipo
2 Instalaciones
3 !
4 Actividad extraescolar
5 ? Profesores – opinión

¿Te interesa(n)…?	***Are you interested in…?***		
el arte dramático	*drama*	la tecnología	*technology*
el dibujo	*art / drawing*	los idiomas	*languages*
el español	*Spanish*	las empresariales	*business studies*
el inglés	*English*	las matemáticas	*maths*
la biología	*biology*	las ciencias	*science*
la educación física	*PE*	la asignatura	*subject*
la física	*physics*	¿Qué opinas de…?	*What do you think of…?*
la geografía	*geography*	me encanta(n)	*I love*
la historia	*history*	me chifla(n)	*I love*
la informática	*ICT*	me interesa(n)	*I'm interested in*
la lengua	*language*	me gusta(n)	*I like*
la química	*chemistry*	no me gusta(n)	*I don't like*
la religión	*RE*	odio	*I hate*
		prefiero	*I prefer*

Verbs with an infinitive

To describe rules, use these structures followed by the **infinitive**:

Se debe	You/One must
No se debe	You/One must not
Está prohibido	It is forbidden
No se permite	You are not allowed
*Está prohibido **correr** en los pasillos.*	It is forbidden to run in the corridors.
*No se debe **ser** agresivo o grosero.*	You/One mustn't be aggressive or rude.

Sports Studies

Y10 Cambridge National Sports Studies – R185 Performance and leadership in sports activities

Leadership Role	Description
Captain	Help make decisions for their team and motivate those around them. A good captain will listen to the views of others but will be willing to make the final decision. In sports, such as rugby the captain is responsible for speaking to the referee and the conduct of their team and making vital decisions, EG kicking at goal.
Manager	Help to manage the processes and procedures, tactics and strategies that the team/performer uses. Managers can make decisions such as substitutions or how the team I playing. However, it is generally accepted that the manager is fair to all players. In a sport such as football, managers play a key role and have many media duties to fulfil.
Teacher	Teachers are in a position of authority and subsequently have the opportunity to lead and guide those they are teaching. Teachers of PE lead sports teams in extracurricular activities and influence who plays and the manner in which they play. PE teachers also teach core PE lessons and are responsible for planning and leading lessons, ensuring all children are safe and all children are active/engaged. PE teacher's fundamental job is to ensure that all students progress in PE and develop their physical skills.

Leadership Styles

- **Autocratic leaders** do no listen to the opinion of others. They are the sole leader and therefore will make all of the decisions. This can be ideal when there is safety involved EG Javelin. Although an autocratic leader may appear bossy, this could cause some conflict within the group.
- **Democratic leaders** consult the group when making decisions. They look for consensus and are willing to listen to the views of others. Elite level performers may well have some informed ideas and suggestions for their coach/leader. Democratic leaders can be very important when the team is unrest.
- **Laissez-faire leaders** do not intervening and let the activity run its course. The leader will appear to be relaxed about what is happening. This style can be effective if the activity is working well and the participants are highly motivated. Although, this style can be detrimental if the team isn't cooperating as no one is in charge to make key decisions.

Role Related Responsibility	Description
Knowledge of activity	Any sports leader must fully understand the activity and know the rules or that they can play within the rules. Equally, if they are questioned about a rule they should know the answer. Sports leaders should be able to plan appropriate training sessions including demonstrating the correct technique and skills for the game. When delivering sessions sports leadership should understand skill progressions so that the drill can be adapted for different ability levels.EG in trampolining the participants would have to learn to bounce before they can perform a seat landing.
Enthusiasm for the activity	A sports leader must show appropriate enthusiasm for the activity, it is often said that 'enthusiasm is infectious' and can lead to others being enthusiastic. An uninterested sports leader is unlikely to get much out of his group, sports leader must show passion, drive and commitment that they expect from performers.
Knowledge of safety	The prime concern of anyone in a position of responsibility should be the safety of those involved. Teachers, coaches and managers hold specific responsibilities to maintain the safety of those that are involved. In order to perform this role, sports leaders tend to have knowledge in the following areas: - The techniques to be used in that activity - What equipment is deemed to be safe in that activity - What clothing and footwear is required - How to carry out risk assessments for that activity - How to treat injuries and reduce risks.
Knowledge of child protection issues	Safeguarding, or protecting children from harm, is a major consideration for any sports leader. Children should feel safe and supported when playing sport and the leader must do everything within their power to allow this to happen. Coaches and teachers, for example, have to be DBS checked before being allowed to attend
Knowledge of basic first aid	Sports leaders have often attended first aid awareness courses to enable them to use basic first aid in the event of an injury. Although serious injuries require the emergency services, many sports leaders are proficient in knowing how to treat minor injuries and how to prevent them from happening in the first place.

Verbal communication

Will be used and should be loud and clear enough for the whole group. Pronounce your words clearly and emphasise any words that are key to the lesson.

Non verbal communication

Involves gestures, hand signals, facial expressions and movements. Non-verbal communication should match verbal communication, EG if a positive comment is being made verbally, the facial expression should also be positive.

Activity-specific knowledge

It is important that you full understand the activity that is taking place before the session starts. This may require some research online to understand certain techniques, drills or tactics that are appropriate to your group or performers.

Adaptability

Definition – Being flexible with your plans and willing to make changes if necessary.

Although you have planned and thought through things can go wrong. This can regularly happen in lessons and this is not a bad thing but how you ADAPT your session and change things for the better. It is important that you can recognise when something is not working and address this with the necessary changes.

Suggested reading:

- Cambridge National Level 1/2 Sport Studies Student Textbook (2019)
- https://www.ocr.org.uk/qualifications/cambridge-nationals/sport-studies-level-1-2-j803-j813/

Homework:
Homework will be set on a weekly basis. This will be dependent on the amount of coursework outstanding. The deadline for submission of R185 Performance and leadership in sports activities is May.. The tasks are outlined below:

Task 1: Key components of performance:

You want to develop your ability in **two** different sporting activities suitable for after-school clubs. The activities, which should be selected from the Approved Activity list (see the OCR website), can be:

- individual
- team
- a combination of individual and team.

Task 2 – Apply practice methods to support improvement in a sporting activity.

Task 3 – Organising and planning a sports activity session.

Task 4: Leading a sports activity session.

Task 5 – Reviewing your own performance in planning and leading a sports activity session.

Religious Studies

Coming soon

Biology

Biology Topic 3: Infection and response

1. Keywords	
Communicable (infectious) disease	A disease which can be spread to others.
Pathogen	Microorganisms that cause infectious disease (eg bacteria, protists, fungi and viruses).
Bacteria	Prokaryotic cells. Some can cause disease by making toxins.
Protists	Eukaryotic cells. Some can cause disease.
Fungi	Class of organisms that includes mushrooms. Some can cause disease.
Virus	The smallest organisms. Much smaller than bacteria. They reproduce inside host cells damaging them and causing disease.
Droplet inhalation	When a disease is spread through coughs and sneezes.
Direct contact	When a disease is only spread from physical contact.
Antibiotics	A group of chemicals which can kill bacteria (eg penicillin).
Antiviral drugs	A group of chemical which can prevent viruses reproducing. Hard to develop safe ones.
Fungicides	A group of chemicals which kill fungi.
Painkillers	A type of drug that treats pain symptoms but does not kill pathogens.
Lymphocyte	White blood cell.

2. Examples of infectious disease

	Disease	Infects	Symptoms	Spread by	Fatal	Treatment
Virus	Measles	Human	Fever Skin rash	Droplet inhalation	Yes	vaccination
	HIV	Human	Reduced immune system	Unprotected sex	Yes	Antiviral drugs
	Tobacco mosaic virus (TMV)	Plants	Discolours leaves Stunts growth	Direct contact	No	Remove infected leaves and burn
Bacteria	Salmonella	Human	Fever Stomach cramps Vomiting Diarrhoea	Food	No	Take fluids to prevent dehydration
	Gonorrhoea	Human	Thick yellow/green discharge from vagina or penis	Unprotected sex	No	Antibiotics (if not resistant)
Fungal	Rose black spot	Plants	Black spots on leaves Stunts growth	Direct contact	No	Fungicides
Protist	Malaria	Human	Fever	Mosquito bite	Yes	Drugs to kill/prevent parasite. Prevention by using nets to stop bites

3. Non-specific defence systems	
Skin	Physical barrier
Nose	Hairs trap pathogens
Trachea and bronchi	Mucus traps pathogens
Stomach	Acid destroys pathogens

4. Specific defence by white blood cells	
Phagocytosis	Ingesting (take in) pathogens digesting and destroying them
Antibody production	Target a specific pathogen. Stick them together and target them for destruction. Gives you a 'memory' of that pathogen so you can fight it more quickly next time
Antitoxin production	Cancel out toxins released by pathogens

5. Vaccination	
Vaccine	Small amount of dead or inactive pathogen to stimulate white blood cells to produce antibodies

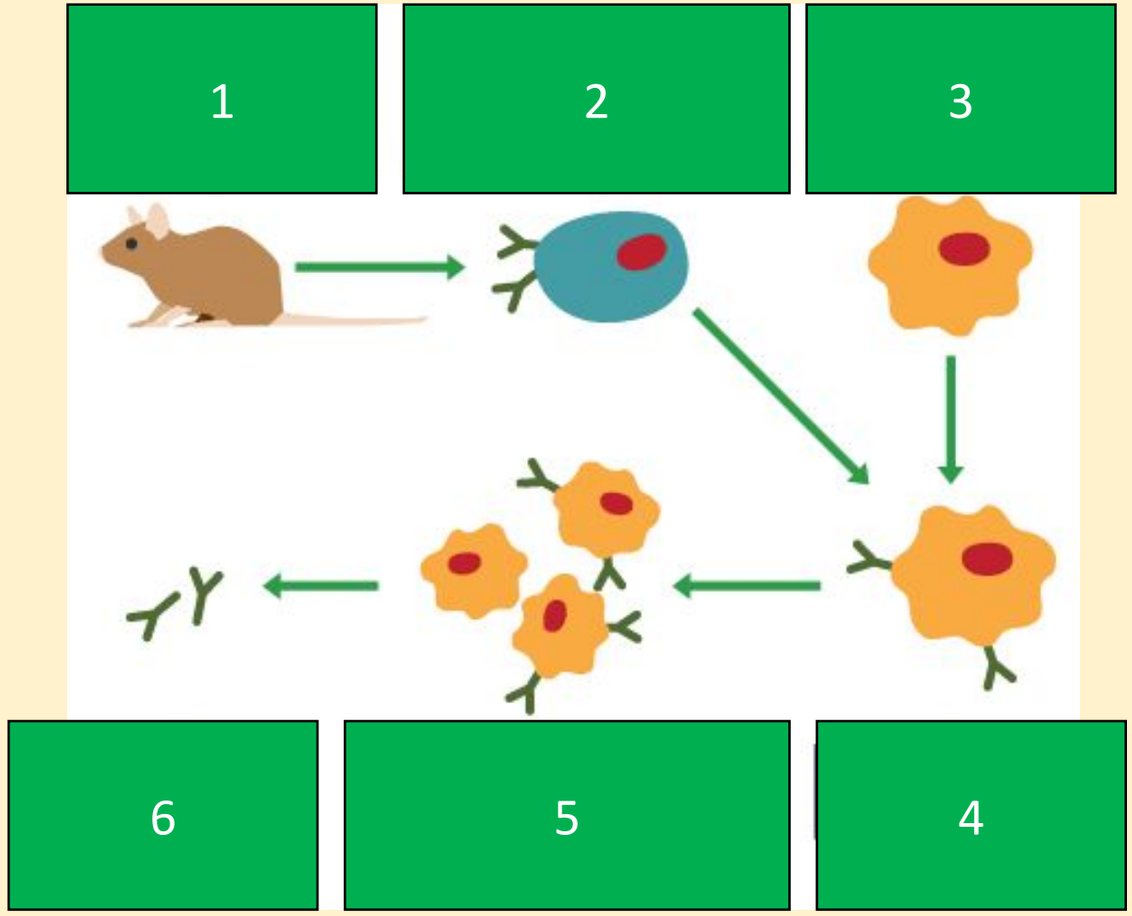
How vaccines work:	
1	Weak or dead pathogen injected
2	White blood cells generate antibodies to destroy pathogen
3	White blood cells that make those antibodies remain and make you immune to future infections

6. Drug development	
Drug/medicine	A chemical which alters the body. Often extracted from plants (eg aspirin) and microorganisms (eg penicillin)
Toxicity	If it is toxic
Efficacy	How well it works
Dose	How much of a drug you need to take to make it work
Placebo	A pill without the drug in it. Taken to check drug effectiveness
Double blind trials	When the doctor does not know if they are giving the medicine or a placebo. Prevents bias

Stages of drug development			Time taken (yrs)
1	Drug discovery	New possible medicines are identified	4.5
2	Preclinical trials	New drugs are tested in lab for toxicity and efficacy on cells, tissues and sometimes animals	1.5
3	Clinical trials	Low doses tested on human volunteers. Then patients suffering with the disease over 3 phases. These are double blind trials	5.5
4	Publishing results	Findings are checked by other scientists (peer review) Drug is approved by NHS	1.5

7. Monoclonal antibodies (HT TRIPLE ONLY)	
What are they?	Antibodies produced from a single clone of cells.
Why are they useful?	Bind to only on binding site on a specific chemical or cell in the body
Uses	Pregnancy tests Measure levels of hormones or other chemicals in blood Locate specific molecules in cells Treat cancer

How are monoclonal antibodies made?	
1	Mouse vaccinated to start production of antibodies
2	Lymphocyte: Produce antibodies but cant divide
3	Tumour cell: No antibodies but divides
4	Cells fused to form a single hybridoma
5	Single hybridoma cell cloned to make identical cells
6	A large amount of identical antibodies collected



8. Detecting plant disease (HT TRIPLE ONLY)			
Symptoms:	• Stunted growth • Spots on leaves • Areas of decay • Growths • Malformed stems and leaves • Discolouration • Presence of pests	Identified by:	• Reference to book or internet • Taking to a lab • Testing kits containing monoclonal antibodies

9. Plant disease (TRIPLE ONLY)		
Type	Disease	How it damages plants
Pest	Aphid	A insect which injects toxins into plants as they eat them
Fungal	Black spot	Damages leaves
Virus	Tobacco mosaic virus	Damages leaves

10. Plant mineral deficiency (TRIPLE ONLY)		
Mineral	Symptom	Reason
Nitrates	Stunted growth	Cant make enough protein
Magnesium	Chlorosis: yellow leaves	Cant make enough chlorophyll

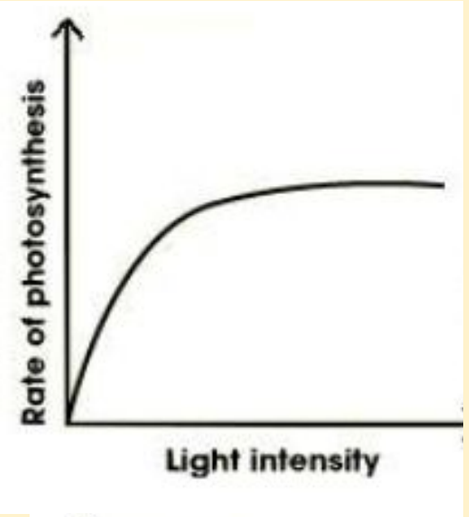
11. Plant defence responses (TRIPLE ONLY)	
Type	Examples
Physical	• Cellulose cell wall • Waxy cuticle on leaves • Layers of dead cells (bark on trees)
Chemical	• Antibacterial chemicals • Poisons to stop animals
Mechanical	• Thorns and hairs stop animals • Leaves which droop or curl when touched • Mimicry to trick animals

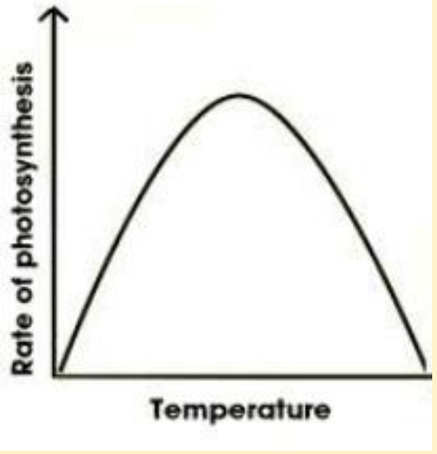
Bee orchid flower resembles a female bee closely enough to attract males in search of a mate

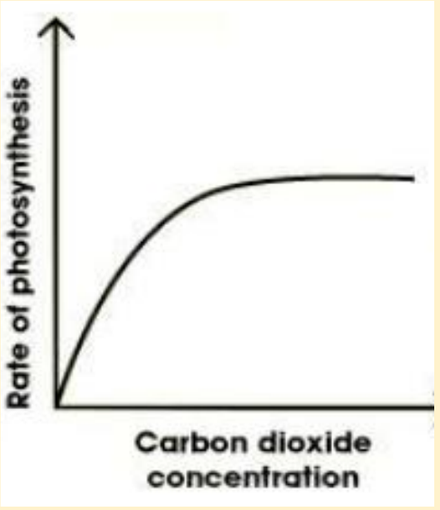
Biology Topic 4: Bioenergetics

1. Photosynthesis	
$6CO_2 + 6H_2O \xrightarrow[\text{Chlorophyll}]{\text{Sunlight}} C_6H_{12}O_6 + 6O_2$ Carbon Dioxide + Water $\xrightarrow[\text{Chlorophyll}]{\text{Sunlight}}$ Glucose + Oxygen	
Photosynthesis	An endothermic reaction where sunlight is absorbed and used to convert carbon dioxide and water into glucose and oxygen
Uses of glucose	• Respiration • Converted into starch • Produce fat or oil • Produce cellulose cell walls • Produce amino acids

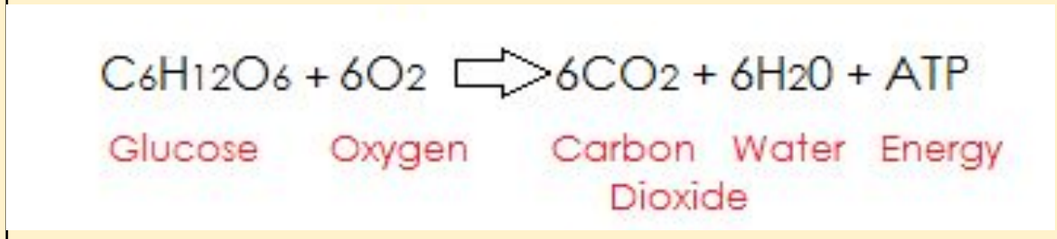
2. Rate of photosynthesis		
Factor	Effect on photosynthesis	Reason
Light	Increases	More energy for the reaction
Carbon dioxide	Increases	More reactants (provided there is no limiting reactant)
Amount of chlorophyll	Increases	More energy for the reaction
Temperature	Increases then decreases	Initially more energy but then enzyme denatures
Limiting factor	The factor that can limit the rate of a reaction	







3. Aerobic respiration	
Respiration	An exothermic reaction which continuously happens in living cells
Purpose	Transfer energy for: • Chemical reactions • Movement • Warmth
Aerobic	With oxygen



Anaerobic	Without oxygen
Anaerobic respiration in muscle cells	glucose □ lactic acid
Anaerobic respiration in yeast cells (fermentation)	glucose □ ethanol + carbon dioxide
Lactic acid	A chemical that when built up in muscles causes fatigue
Oxygen debt HT ONLY	The amount of oxygen the body needs after exercise to remove the lactic acid

4. Response to exercise	
Change	Reason
Heart pumps faster	Supply more oxygenated blood to the muscles
Breathing rate increases	
Deeper breaths	

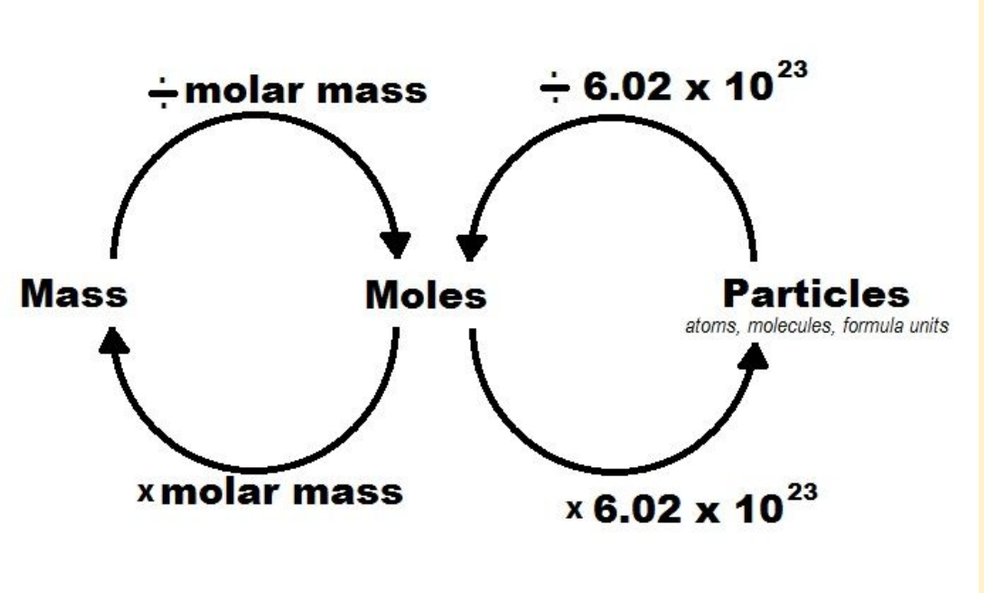
5. Metabolism	
Metabolism	The sum of all the reactions in a cell or the body
Includes:	• Conversion of glucose to starch, glycogen and cellulose • Formation of lipids from glycerol and 3 fatty acids • Use of glucose and nitrates to make proteins (PLANTS) • Respiration • Breakdown of protein to from urea.

Chemistry

Chemistry Topic 3: Quantitative chemistry

1. Keywords	
Conservation of mass	No atoms are made or lost during a chemical reaction. The mass before the reaction must equal the mass after a reaction IN A CLOSED SYSTEM
Closed system	A container which no chemicals can escape. Eg a sealed bottle
Relative formula mass (Mr)	Sum of relative atomic masses from periodic table
Balanced equation	When the sum of the Mr on the left equals the sum of the Mr on the right
Uncertainty	The percentage of a result that might be wrong. Shown from differences between repeats
Limiting reactant	The reactant which runs out first

2. Moles (HT ONLY)	
Mole	The number of particles needed to make the mass equal the atomic mass
Avogadro constant	6.022×10^{23} particles in 1 mole



3a. Concentration		
	Concentration	g/dm^3
	mass	g
	volume	dm^3 (litres)

3b. Concentration (HT ONLY)		
	Concentration	g/dm^3
	mole	
	volume	dm^3 (litres)

4. Percentage yield (TRIPLE ONLY)		
	Percentage yield	%
	Mass of product actually obtained	g
	The theoretical maximum mass possible	g

5. Atom economy (TRIPLE ONLY)		
	Percentage atom economy	%
	Relative formula mass of the product you want	g/mol
	The total of all the react Mr added together	g/mol

6. Volume of gases (TRIPLE HT ONLY)	
1 mole of gas occupies 24 dm^3	If 20°C and 1 atmosphere pressure
Equal moles occupy the same volume	

Chemistry Topic 4: Chemical changes

1.Keywords	
Metal oxide	A compound formed when a metal ionically bonds to oxygen
Reactivity series	The order of elements in terms of their reactivity
Acid	A substance that releases H^+ ions and has a pH below 7
Base	A substance that neutralises an Acid and has a pH above 7
Alkali	A type of soluble base. A metal hydroxide. Releases OH^- ions
Neutralisation	When an acid reacts with a base to produce a salt and water
Carbonates	Ionic compounds containing Carbon and oxygen
Salt	Ionic compound formed when acid and base react
Soluble	A substance that dissolves
Insoluble	A substance that does not dissolve
Indicator	A substance that changes colour when pH changes
Electrolysis	Splitting up an ionic substance using electricity
Molten	Turned to a liquid
Solution	Dissolved in water

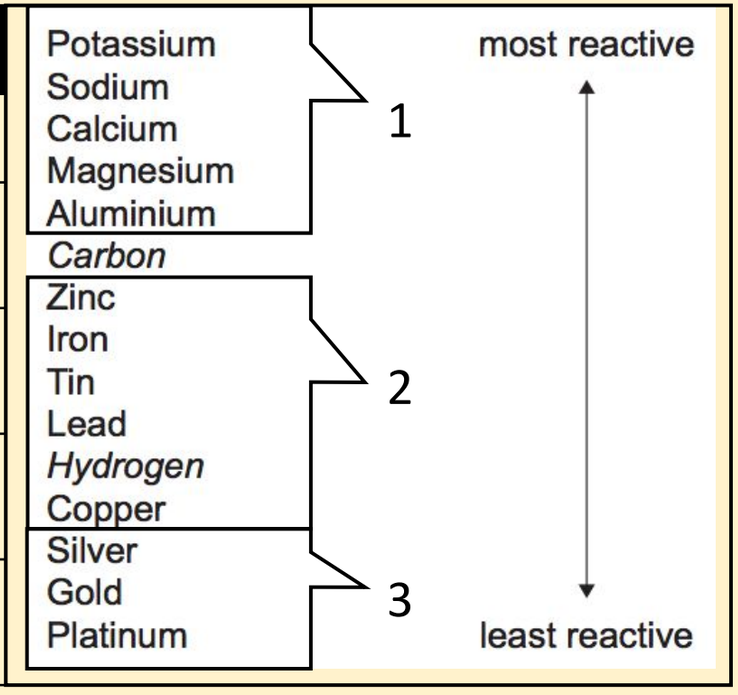
2. REDOX

Change	**In terms of oxygen**	**In terms of hydrogen**	**In terms of electrons (HT ONLY)**
Oxidation	Gaining oxygen	Losing hydrogen	Loss of electrons (OIL)
Reduction	Losing oxygen	Gaining hydrogen	Gain of electrons (RIG)

3. The reactivity series

	Category	Extracted by
1	Highly reactive metals	Electrolysis
2	Base metals	Smelting: heating with carbon
3	Native metals	Found as nuggets of pure metal

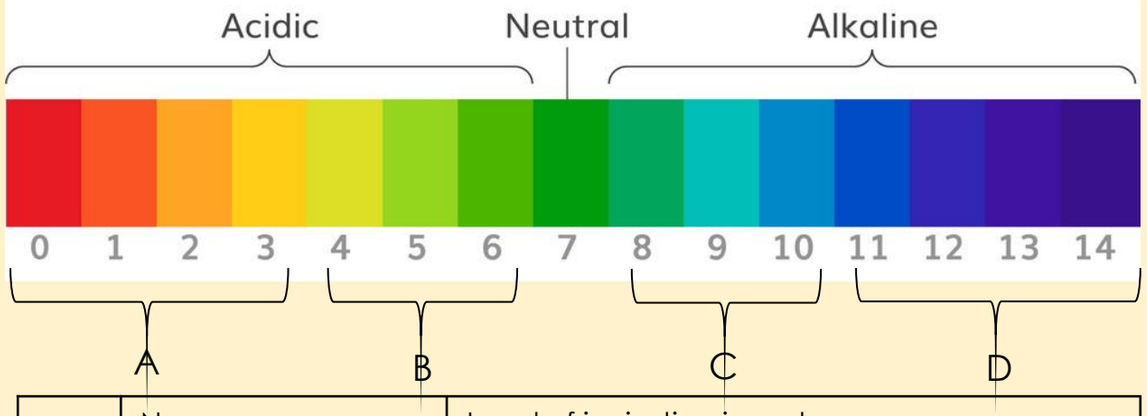
NOTE: Hydrogen is not a metal and used to extract some other metals not on this list



4. Naming salts

Acid used	Second part of salt's name
Hydrochloric acid	chloride
Sulfuric acid	sulfate
Nitric acid	nitrate

5. pH scale



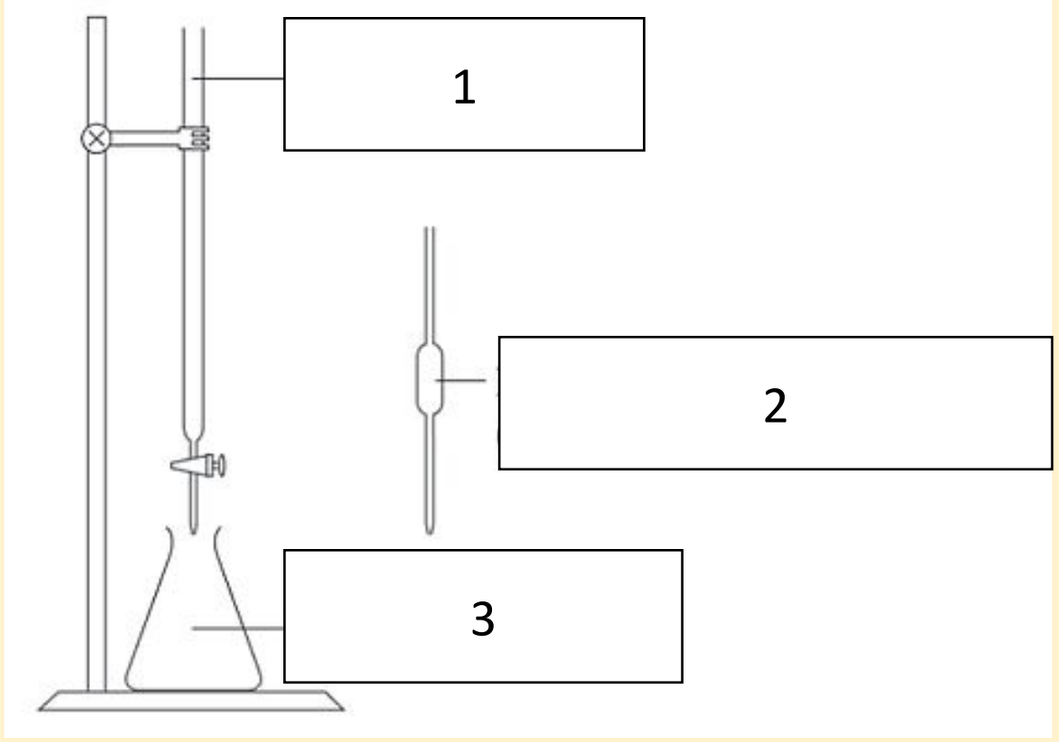
	Name	Level of ionisation in water
A	Strong acid	Fully
B	Weak acid	Partially
C	Weak base	Partially
D	Strong base	Fully

6. Equation for all neutralisations

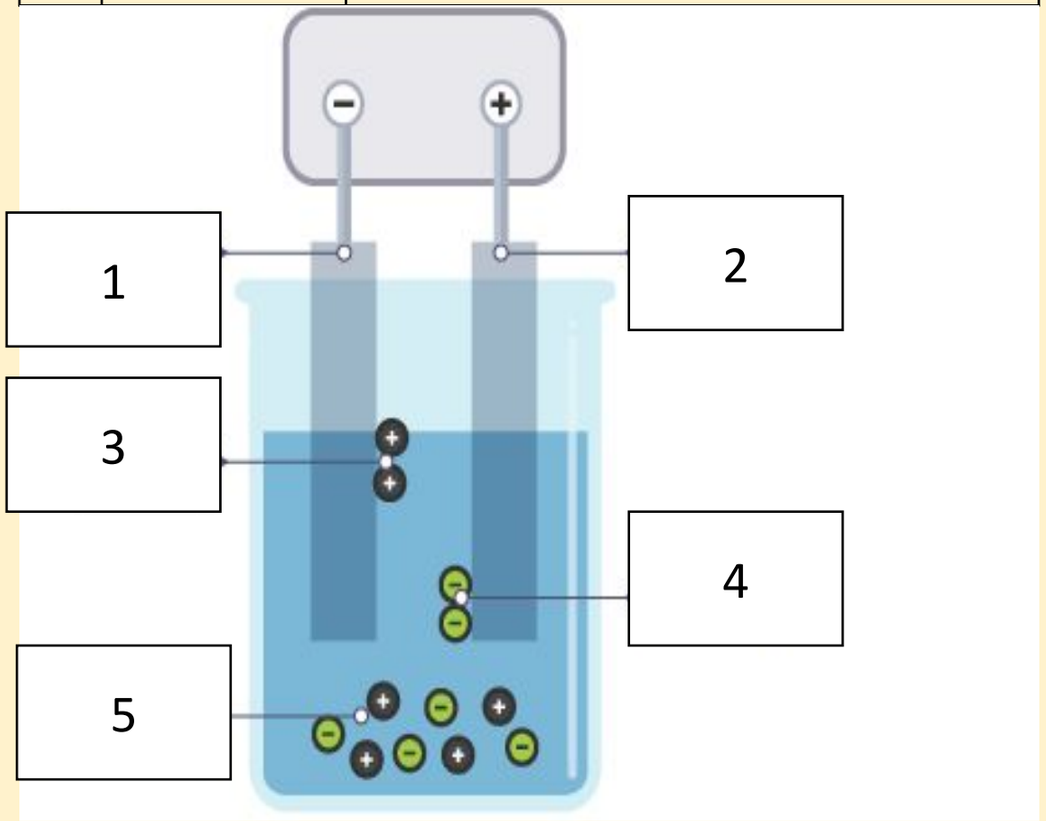
$$H^+_{(aq)} + OH^-_{(aq)} \rightarrow H_2O_{(l)}$$

7. Titrations (TRIPLE ONLY)

No.	Name	Function
1	Burette	Measures amount of acid or base delivered to conical flask
2	Pipette	Accurately measures the acid or base into the conical flask
3	Conical flask	Holds the acid or base to be titrated and an indicator



7. Electrolysis		
1	Cathode	The negative electrode
2	Anode	The positive electrode
3	Positive ion	Move to cathode
4	Negative ion	Move to anode
5	Electrolyte	The ions that are being electrolysed



Don't **PANIC** - **P**ositive is **A**node, **N**egative **I**s **C**athode.

8. Electrolysis of aqueous solutions	
Place in reactivity series	**Product of electrolysis**
Metal more reactive than hydrogen	Hydrogen is produced at the cathode
If the negative ion is not a halide ion (group 7)	Oxygen is produced at the anode

Physics

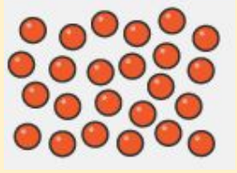
Physics Topic 3: Particle model

1. Density

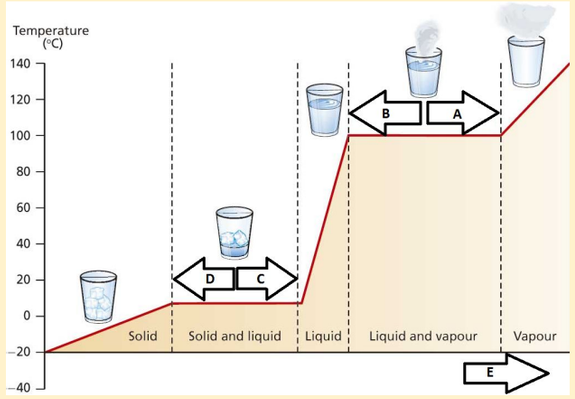
$$\rho = \frac{m}{V}$$

Symbol	Meaning	Unit
ρ	density	kg/m^3
m	mass	kg
V	volume	m^3

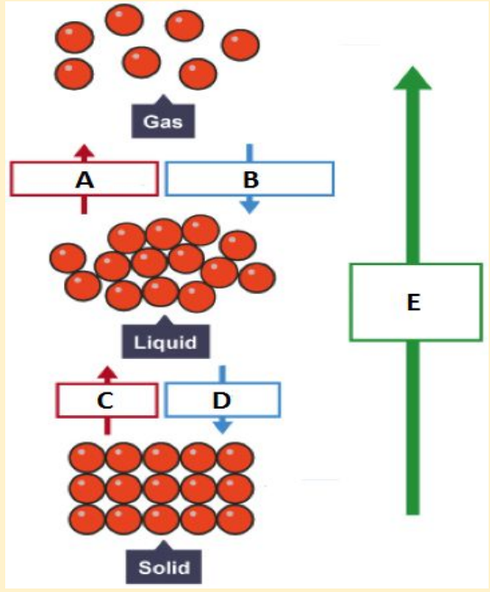
5. Gas properties

Diagram	
Arrangement of particles	Randomly arranged Far apart
Movement of particles	Brownian motion
Energy of particles	Very high energy
Density of substance	Very low density

2. Changes of state



A. Evaporation/ Vaporisation
B. Condensation
C. Melting/ Fusion
D. Freezing
E. Increasing internal energy



3. The specific heat capacity

Energy transferred, ΔE (joules, J) = **mass, m** (kilograms, kg) x **Specific heat capacity, c** (joule per kilogram per degree Celsius, J/kg° C) x **Temperature change, Δθ** (degree Celsius, °C)

To find the specific heat capacity of a substance the equation can be rearranged to: $c = \frac{\Delta E}{m\Delta\theta}$

4. The specific latent heat

Energy transferred, ΔE (joules, J) = **mass, m** (kilograms, kg) x **Latent heat, L** (joule per kilogram J/kg)

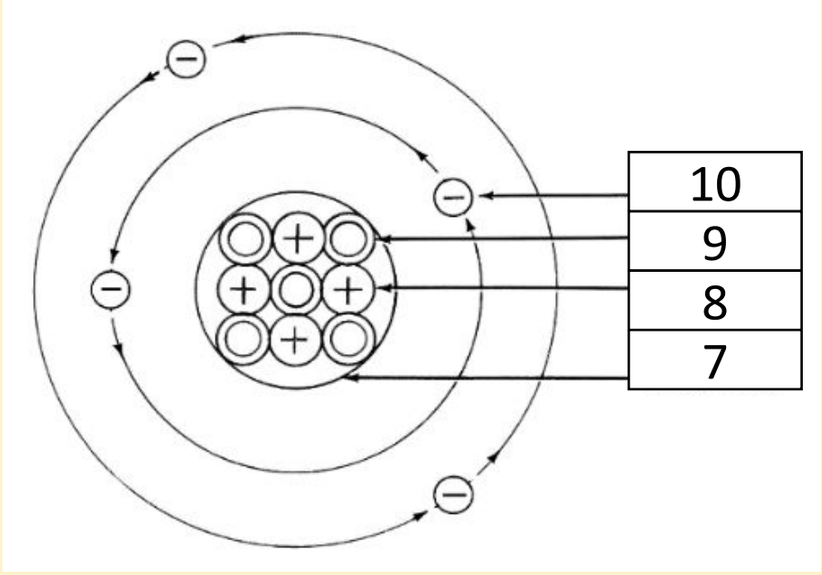
To find the specific latent heat of a substance the equation can be rearranged to: $L = \frac{\Delta E}{m}$

6. Pressure in gases (TRIPLE ONLY)

change	effect	reason
Increase Pressure	Increase volume	More particles so more collisions Increase the force stretching the balloon until the forces balance
Decrease pressure	Decrease volume	Less particles so less collision. Decrease the force causing the balloon to contract until the forces balance
Formula	**pV=constant**	**IF fixed mass and constant temperature**

Physics topic 4: Atomic structure

1. Keywords	
1. Atom	The smallest possible piece of an element. Has a radius of 0.1nm (or $1x10^{-10}$m).
2. Element	A substance in which all the atoms have the same atomic number.
3. Isotope	Atoms with the same number of protons but different numbers of neutrons.
4. Molecule	Two or more atoms bonded together
5. Compound	Two or more <u>different</u> atoms bonded together
6. Mixture	At least two different elements or compounds together. Can be separated easily.
7. Nucleus	The centre of an atom. Contains protons and neutrons
8. Proton	A positively charged particle found in the nucleus
9. Neutron	A neutral particle found in the nucleus. Has no charge
10. Electron	A negatively charged particle found in energy levels (shells) around the nucleus



2. Properties of sub-atomic particles			
Particle	Relative mass	Relative charge	Location
Proton	1	+1	Nucleus
Neutron	1	0	Nucleus
Electron	0	-1	Shells

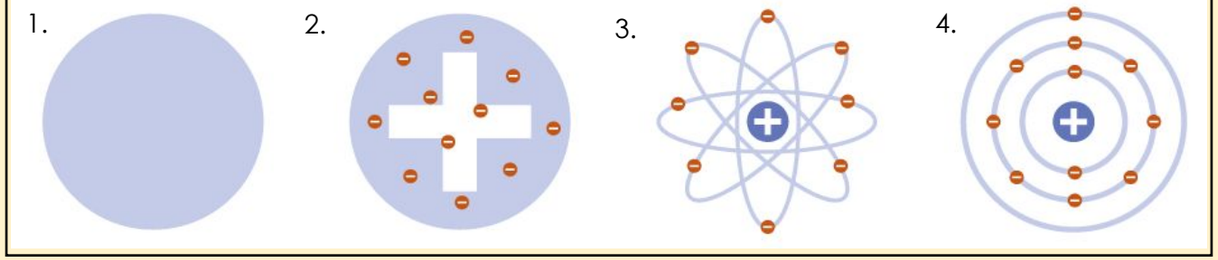
Key

relative atomic mass
atomic symbol
name
atomic (proton) number

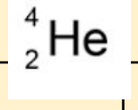
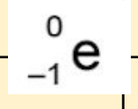
1
H
hydrogen
1

3. Using the periodic table		
Number of..	Is the…	Found by..
Protons	Atomic (proton) number	Smaller number on periodic table
Electrons	Atomic (proton) number	Smaller number on periodic table
Neutrons	Difference between the atomic mass and atomic number	Big number – small number

4. History of the atom			
Discovery	By	Model	Diagram
Solid particle called atom	Democritus & John Dalton	Particle: solid spheres	1
The electron	JJ Thomson	Plum pudding: positive 'cake' with negative 'plums'	2
Nucleus	Rutherford	Nuclear: Positive nucleus surrounded by electrons	3
Neutron	James Chadwick	Nuclear: Now with protons and neutrons in nucleus	3
Energy levels (shells)	Niels Bohr	Planetary: Electrons now 'orbit' in different shells	4



5. Radioactive decay keywords	
Unstable	The ability for a nucleus to decay
Radioactive decay	When unstable atomic nuclei give out radiation as they change to become more stable.
Nuclear radiation	The energy and particles released when an unstable nucleus decays
Activity	It is the rate at which a source of unstable nuclei decays.
Becquerel	The unit of activity
Geiger-Muller tube	A device to measure the count rate of a radioactive source
Count rate	It is the number of decays recorded each second by a detector (such as a Geiger-Muller tube).
Ionising power	How well it knocks off electrons and damages cells
Half life	The half-life of a radioactive isotope is the time it takes for the number of nuclei of the isotope in a sample to halve, or the time it takes for the count rate (or activity) from a sample containing the isotope to fall to half its initial level.
Radioactive contamination	Radioactive contamination is the unwanted presence of materials containing radioactive atoms on other materials.
Peer review	When the findings of one expert are double checked by another expert to make sure they are correct
Irradiation	Irradiation is the process of exposing an object to nuclear radiation. The irradiated object does not become radioactive.

6. Ionising radiation						
Name	Symbol	Made of	Charge	Range in air	Penetration	Ionising power
Alpha	α	Helium nucleus 	**+2**	5 cm	Blocked by paper and skin	High
Beta	β	Fast moving electron 	**-1**	15 cm	Blocked by thick aluminium	Medium
Gamma	γ	Electromagnetic wave	N/A	Very long	Blocked by thick lead	low

8. Uses of nuclear radiation (TRIPLE ONLY)

Use	Half life	Penetration power	Ionising power	Preferred emitter
Exploring internal organs	A few hours	Med-high	Low	Gamma
Radiotherapy	A few years	High	Med/Low	Gamma (or Beta)

9. Nuclear Fission vs Fusion (TRIPLE ONLY)

Nuclear fission	When a large nuclei breaks into smaller nuclei releasing energy	E.g: • Nuclear power stations • Atomic bombs • The core of the Earth
Nuclear fusion	When small nuclei join together to form larger nuclei. Some mass in converted into energy	E.g: • The Sun • Hydrogen bombs

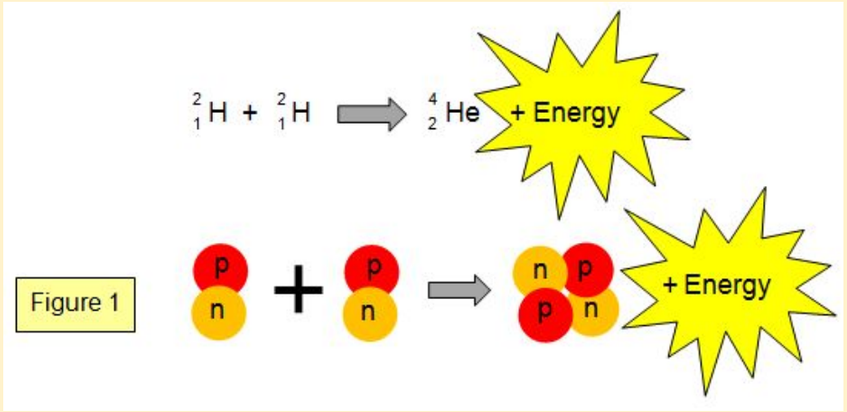
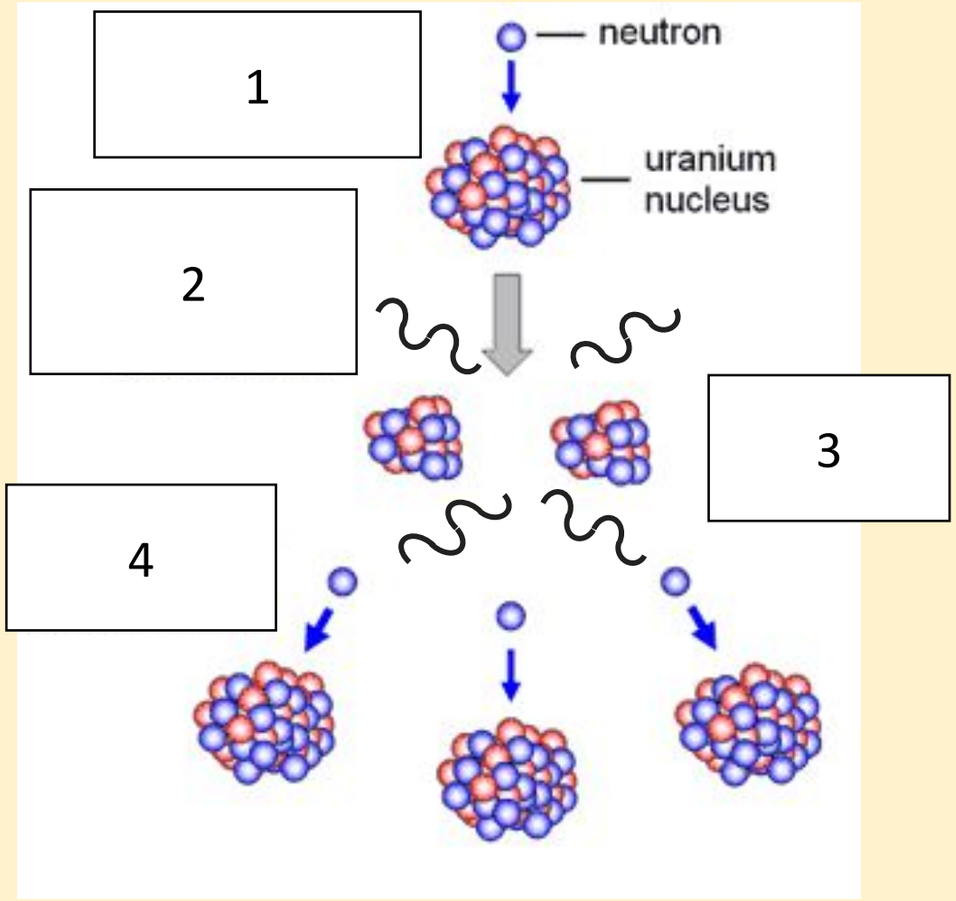


Figure 1

10. Nuclear fission (TRIPLE ONLY)

1	A slow neutron hits the nucleus
2	The nucleus becomes unstable and splits roughly in half
3	3 neutrons and gamma rays are released
4	These neutrons hit other nuclei causing a chain reaction
5	If this is uncontrolled then it will result in an explosion



Sociology

Y11 Exam Unit - Family.	
Nuclear family	Two generational families containing a heterosexual married or cohabiting couple and their dependent children.
Extended family	Group of relatives extending beyond the nuclear family but have regular contact.
Reconstituted family	A blended or stepfamily in which one or both partners have a child/ren from previous relationships living with them.
Social stigma	Disapproval of a person based on perceived characteristics.
Patriarchy	Male dominance over women.
Household	Made up of people who live in one unit.
Double shift	When a woman takes on a career and the housework. This then can lead to the triple shift, which also involves emotional support.
Primary socialisation	How a child is taught the norms and values of a society.
Monogamy	Being married to just one person. This can be serial monogamy, which is when you may divorce and then get remarried.
Cohabiting	Live together but are not married.
Dysfunctional families	Conflict, emotional distress and potential abuse. (This is used to criticise the functionalist perspective as it ignores dysfunctional families in its findings).
Symmetrical family	Spouses perform different tasks but both contribute to the home.
Empty nest	When the children have moved out and no longer live with their parents.
Canalisation	The way a parent channels their children's interest into toys/ games and other activities.
Egalitarian Families	Sharing power between members of the family.
Principle of stratified diffusion	Social changes start at the top of the social class system and work down (Young and Willmott, 1973).
Polygamy	Practice of having more than one spouse.
Polygyny	Man has 2 or more wives.
Polyandry	Woman has 2 or more husbands.
Instrumental role	Men take on this role as the breadwinner (Parsons, 1959).
Expressive role	Women take on this role as the housewife and mother (Parsons, 1959).
Joint conjugal roles	No rigid division of household tasks. Shared leisure activities.
Segregated conjugal roles	Division in domestic labour due to gender. Separate leisure activities.

Families key studies	Key findings
Parsons Functionalist	Two key functions of the family: 1. Primary socialisation – children are taught the shared norms and values of society 2. Stabilisation of adult personality – family relieves stress of life, like a 'warm bath'
Zaretsky Marxist	The family serves capitalism through: 1. Women's unpaid labour 2. Passing on of advantage in families eg inheritance 3. Unit of consumption
Delphy and Leonard Radical feminist	Family is patriarchal because: 1. Women are exploited economically – labour is used by their husbands 2. Family is hierarchical – men at the top 3. Patriarchal family reflects patriarchal society
Oakley Feminist	Analyses the 'conventional family' finding: 1. Women are expected to do unpaid work 2. IDEA of the conventional family is powerful 3. People expect happiness, but nuclear family can be stressful 4. Middle class – more family diversity
Rapoport and Rapoport	Pioneers in researching family diversity. 5 types: 1. Organisational – structure of families 2. Cultural – cultural/ religious differences 3. Social class – class differences 4. Cohort – historical differences 5. Life course – differences in life cycle of the family
Willmott and Young Functionalist	Found the family was becoming more symmetrical – similar but not identical roles, equal contribution to household work, and shared decision making and friends. Home-centred. Principle of stratified diffusion: changes in family life start with higher social classes and trickle down

Homework

1: Knowledge Organisers
These provide the basic knowledge for each topic which needs to be known off by heart. This may include key concepts, key theories and the named sociologists and their research findings for each topic.

2: Meanwhile, elsewhere
What we learn in our lessons only offers a glimpse of the world. To widen our understanding, one page research sheets will be used to explore what else is going on around the world in contemporary society to match the topics we are studying. These need to be researched using the links and resources provided and completed.

3: Revision
Preparing for Sociology assessments is an essential part of each topic, as these assessments allow teachers and pupils the chance to check their progress in Sociology. Revising gives you the chance to show off what you know.

Read:

Classic Texts: Willmott and Young "The Symmetrical Family", 1973
https://www.tutor2u.net/sociology/reference/classic-texts-willmott-and-young-the-symmetrical-family-1973

Classic Texts: Ann Oakley "Conventional Families" 1982
https://www.tutor2u.net/sociology/reference/classic-texts-ann-oakley-conventional-families-1982

Classic Texts: Rapoport & Rapoport "British Families in Transition" 1982
https://www.tutor2u.net/sociology/reference/classic-texts-rapoport-rapoport-british-families-in-transition-1982

Classic Texts: Eli Zaretsky "Capitalism, the Family & Personal Life" 1976
https://www.tutor2u.net/sociology/reference/classic-texts-eli-zaretsky-capitalism-the-family-personal-life-1976

Classic Texts: Delphy & Leonard "Familiar Exploitation" 1992
https://www.tutor2u.net/sociology/reference/classic-texts-delphy-leonard-familiar-exploitation-1992

Classic Texts: Talcott Parsons "The Social Structure of the Family" 1959
https://www.tutor2u.net/sociology/reference/classic-texts-talcott-parsons-the-social-structure-of-the-family-1959

Watch:

YouTube: Stages of family life: Crash course sociology #38
https://www.youtube.com/watch?v=eWTz3KBCxfg

YouTube: The British family
https://www.youtube.com/watch?v=fl40wizRNc4&t=6s

SOCIOLOGICAL THEORY

The Marxist approach is a CONFLICT theory. Marxists believe that the nuclear family benefits the capitalist society, mainly through women carrying out unpaid domestic labour which means men can go out to work and be supported.

Functionalism is a CONSENSUS, structuralist theory. Functionalists, such as Parsons believe that the family provides important functions that form the foundation of a stable society. For example, socialising children in to the norms and values of society, providing financial support, reproduction of children and a safe space to carry out sexual relationships.

Feminism – View society as PATRIARCHAL. Feminists are critical of the family as they have a negative effect on women. The roles within the family are not balanced with women expected to more of the housework and childcare whilst men go out to work. They also perpetuate gender stereotypes through socialising children to conform to these roles.

Listen:

BBC Sounds: Family Matters
https://www.bbc.co.uk/sounds/play/p03jvgt8