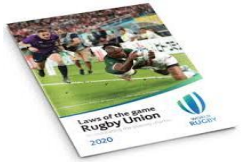
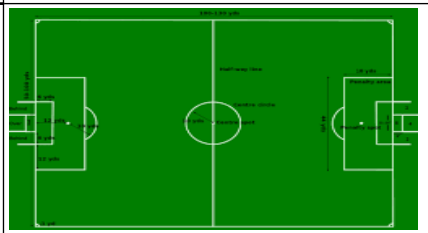
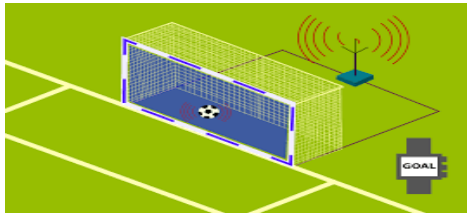
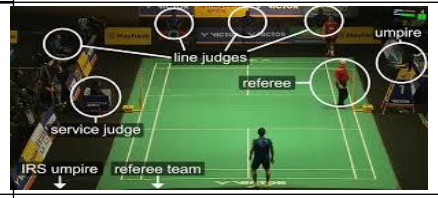
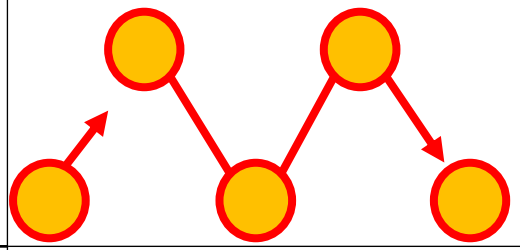
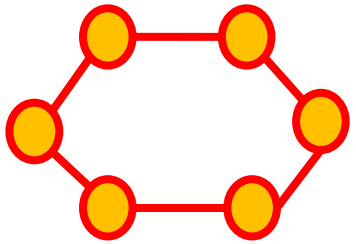
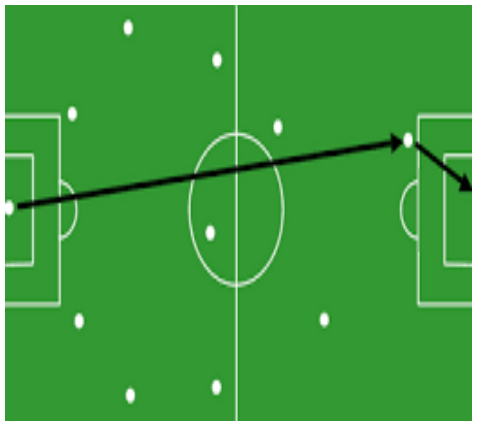
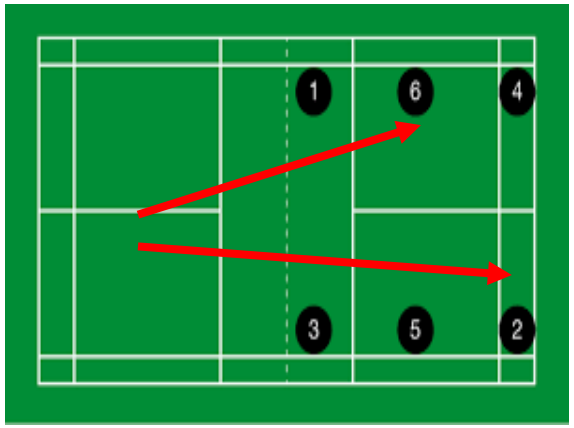
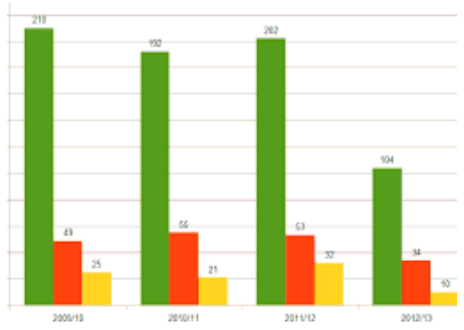
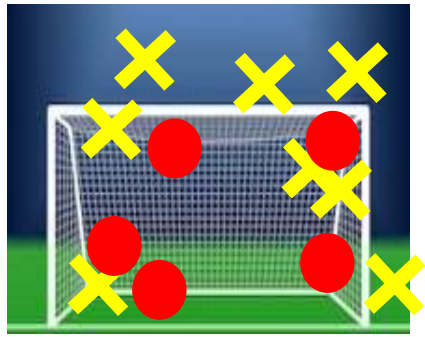
UNIT 2: Practical Performance in Sport, Learning Aim A

A: Understand the rules, regulations and scoring systems for selected sports.				Examples in Sport:
Rules or laws:	Rules and/or laws as **regulated by the NGB (governing body).** E.g. FIFA (football), IRB (Rugby Union), BWF (Badminton or IOF (Orienteering).			• **Football:** If the player taking the kick-off touches the ball again before it has touched another player an indirect free kick, or for a handball offence, a direct free kick is awarded. • Netball: A team should not be disadvantaged when an opponent infringes. In particular, the umpire should refrain from blowing the whistle if the attacking side can continue and take advantage of the current situation.
Regulations:	Relating to the players and participants. Use of equipment in selected sport, playing surface, facilities, health and safety, time, officials (referee, umpire, judge, starter, timekeeper), dress code, tournament rules/applications.			• Football, pitch dimensions: Length (touchline): minimum 90m (100yds) maximum 120m (130yds) Length (goal-line): minimum 45m (50yds) maximum 90m (100yds) • Badminton, court dimensions: The **badminton court** is 13.4m long and 6.1m wide. For singles the **court** is marked 5.18m wide.
Scoring Systems:	The method of **scoring goals or points,** the method and/or requirements for victory in chosen sport.			• A **footballer scoring** with a shot at **goal.** The shot results in all of the ball crossing the line = goal awarded to the attacking side. • Netball **– One point scored per successful basket** made by the Goal Attack or Goal Shooter. • **Rugby Union** – 3 points for a **drop goal** over the posts, 3 points for a **penalty kick**, 5 points for **a try** and 7 points for a **converted try** (2 points for a conversion).
Application of the rules/laws in different situations:	**Applying and explaining** certain and **specific scenarios** in a chosen sport. What happens and what happens as a result – how does the referee / umpire / officials dealing with the play.			**FALSE START IN 100M RACE –** The starter fires the starting gun and there is movement from the blocks from an athlete preparing to run. If they have moved within 0.1secs then this is a **FALSE** start. **SANCTION:** the race organiser will announce a false start, athletes will set up again. The next false start from any athlete will result in disqualification. **GOAL LINE TECHNOLOGY IN FOOTBALL** – An attacking player has a shot at goal and the defender clears it off the line. It is unclear if the ball has crossed the line to the referee and they let play continue. **SANCTION:** As a result if the entire ball has crossed the line the referee's watch will alert them that there has been a legal goal scored. The referee will signal a goal and award this to the attacking side as a result.
Roles of Officials:	The roles of umpires, referees, referees' assistants, judges, timekeeper, starters, table officials, third umpire, VAR, fourth official.			• A referee in football who controls the play for 90 minutes. They have two assistant referees who assist on the pitch and will assist and help with decisions, in particularly, signalling offside attackers. A fourth official who is a substitute referee and will control all off the pitch scenarios, e.g. substitutions coming onto play and managers from both sides.
Responsibilities of Officials:	This may cover their appearance when officiating, equipment needed to officiate, level of fitness, qualifications, interpretation and application of rules, health and safety, fair play, use of technology & effective communication.			• **FOOTBALL:** Qualifications; a referee must be qualified and can officiate from the age of 14. There are 8 levels of officiating right up to the English Premier League. • **TENNIS:** Use of technology; an umpire will use technology to help them officiate a match. A beeper will sound if a player hits the net off a serve so they can call 'let' on the serve. They will also use Hawk Eye to determine if a ball landed in or out during play.

UNIT 2: Practical Performance in Sport, Learning Aim B

B: Practically demonstrate skills, techniques and tactics in selected sports.				**Links to other units:**
Technical Demands: The skills and techniques to participate and perform in the chosen sport. Continuous skills, serial skills and discrete skills. Movement, use of equipment, communication and other specific demands of the chosen sport.	**Discrete Skills** A skill performed with **a CLEAR, BEGINNING and END.** If the skill is to be replicated, the process must start again and be performed the same way. The action is often brief and simple. **Examples in sport:** • A footballer kicking a ball or making a pass. • A golf swing	**Serial Skills** A skill that **is several discrete skills** put **together as a sequence.** A new and complex movement. A group of skills strung together. **Examples in sport:** • An athlete performing the High Jump from the preparation phase through to performing the jump.	**Continuous Skills** A skill that is made up from the **same movements** that **occur again and again and are repeated.** No clear beginning or end to the skill. **Examples in sport:** • An athlete running a long distance, such as 10,000m race or a marathon. • A swimmer performing the breaststroke during an endurance race.	**Components of physical fitness (see Unit 1):** • Aerobic Endurance • Muscular Endurance • Flexibility • Speed • Muscular Strength • Body Composition • The application of the components of fitness to a chosen sport, e.g. footballer requiring speed and muscular strength to ride past a defender when dribbling.
Examples of skills:				
Tactical Demands: • **Decision making** and strategies to **overcome and beat an opponent**. • This includes use of **personal strengths**, e.g. skills and techniques the athletes and performers are strong at. • Use **of relevant tactics**, choices of shots/strokes, variation, conditions, use of equipment, use of space, defending and attacking.		**Examples in sport:** **Football** – long ball, defenders and midfields play long balls to get attackers behind the defence and in on goal. Particularly effective with fast strikers and high pressing defences. **Badminton** – playing the corners. Pushing the opponents into the corners of the court to keep them moving or away from the centre so they do not have control. A player could also exploit an opponent's back hand.		

UNIT 2: Practical Performance in Sport, Learning Aim C

C: Be able to review sports performance		Examples:		
Observational checklist:	• **Using video analysis** to review own sport performance. • **Judging own sports performance** against the relevant physical components of fitness (see Unit 1). • **Technical demands** of the sport (skills and techniques). • **Tactical demands** of the sport. • Produce a checklist suitable for **self-analysis of performance** in selected sports.			
Review performance:	• **Strengths and areas for improvement**, relating to components of fitness. • Tactics; **the effectiveness of decision making** of performer. • Activities **to improve own performance**; **short and long term goals.** • This includes: Use of technology, training programmes, attending courses and willing to seek help and advice from peers, professionals and coaches.			

Strengths and Areas for Improvement (Examples):

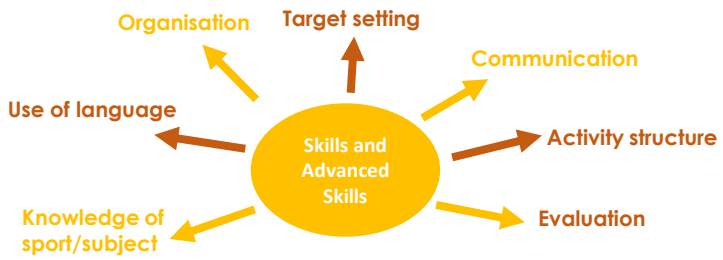
Reviewing own sport performance may include:

- **Strength 1:** I have a good stance on the serve during badminton as my feet are behind the line but also ready to move and prepare for the next shot.
- **Strength 2:** My hips are square to the opponent when serving which allows the shuttlecock go into the direction in which I am serving, this make the serve more accurate.
- **Area of Improvement 1:** Once I follow through on the shot I lose control of the racket head which often means the serve is not as accurate. To improve, the racket head should follow through to its intended target.
- **Area of Improvement 2:** In preparation for the serve my back is not straight, therefore I lean into the serve which causes it to be less accurate and occasionally hit the net.

Identified component of fitness to improve	Types of training to improve these	Why this will help?
Aerobic Endurance	Continuous training - Running, Biking, swimming and Rowing Interval Training - HIIT sessions, Circuit Training Fartlek Training - Speed play; Sprint/Jog/Walk	If I was to take part in these activities as part of a training program. They would be specific to my sport as in rugby you run around the field constantly for the full 60min game. Sometimes my speed changes when I go to tackle or score a try and therefore Fartlek would be a good training method for this.
Muscular Strength	Weight Training - Upper body strength exercises such as Bench press, Lat pull down, Dumbbells. Circuit Training - Press-ups, Squats, Medicine ball slams, Plank, sit ups	These activities would be good to improve my strength in rugby as my upper body is used more to tackle an opponent and take them to the ground. By improving my muscular strength I will find it easier to tackle them to the ground and gain possession of the ball.

UNIT 6: Leading Sports Activities, Learning Aim A

Sports Leaders:



KEY: Skills and Advanced Skills

Communication – This can happen in different forms. Verbal – technical instructions to participants, non-verbal – facial or hand expressions and bodily gestures and listening – after asking a participant a question.
Organisation of equipment – Leaders need to know what equipment they wish to use in a session. They should make sure they have this with them and that it is all safe to use. Check should take place to ensure it all works regularly.
Knowledge of sport / subject – Sport coaches should have specific knowledge of their sport. Technical and tactical knowledge, fitness requirements of the game, how to treat basic injuries and the laws and regulations.

Activity Structure – Sport coaches should ensure that sessions delivered have a clear and organised structure. The session should have appropriate activities for the participants and be safe and secure. Sport sessions typically follow the following format: warm-up, main body, cool-down, feedback/de-brief.
Target Setting – Specific goals that the coach would like to complete in the session. These are known as aims and objectives. Individual targets maybe set for some participants to make the session easier and/or more challenging. These targets can also be short-term, medium-term or long-term targets for the team or individual.

Use of language – Sports leaders need to be effective at communicating with participants. Through language they can develop: a rapport with participants, a high level of sport knowledge, respect from performers and solve issues in the sessions quickly and efficiently.

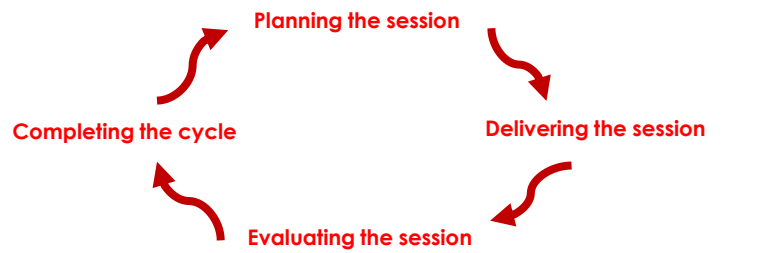
Evaluation – Sport leaders should be able to give participants effective feedback on their strengths and areas of improvement. They should also reflect on their own performance and evaluate their sessions to see if their delivery was good enough. They need to show honesty to improve on their delivery but also recognise what skills and qualities they are good at when delivering sport sessions.

Sports coaches, fitness instructors, school/college coaches/teachers, local club coaches, national coaches, amateur coaches.

KEY: Core responsibilities and Wider Responsibilities

Professional conduct – Conduct is the way we behave. If leading a session then there is a professional manner that all sports leaders must adhere to. Leaders should encourage this throughout sessions.
Health and safety – The risks of accidents is a threat to all sport sessions. Sports leaders must minimise the risks to injuries and accidents to all participants. Using safe equipment, safe practices and trying to prevent injuries and accidents through completing a risk assessment.
Equality – Whatever a sports performers ability or differences to others, sport coaches must provide all participants with equal opportunities to develop and improve. There should be no inequality or prejudice to any participants.

Insurance – Sports performers require appropriate insurance in order to deliver sessions. They are liable for any accidents to performers and should therefore have the appropriate protection for all involved.
Child protection – Children Act (2004) states that it is the duty of an adult looking after children to ensure they are safe at all times, this includes in sports sessions. They need to ensure children are safe and registered to play the sport safely.
Legal obligations – Sports leaders have a duty to ensure they are aware of the legislation that is put in place for their relevant sport. These are passed by the government to ensure everybody is safe.



EVALUATING A SPORTS SESSION

Leadership Styles

Autocratic – The leader makes all the decisions. They tell the performer how and what to do.

Democratic – The leader decides what is delivered in the sessions but involves the sports performers in the decision-making process. This may involve question and answer and a way of discovering opportunities to improve their own performance.

Laissez-faire – The performers are in control of the session and make the decisions. The sports leaders is then used as a mentor or figure to use when performers may need their intervention or feedback.

Autocratic
Advantages:
- Good when working with beginners.
- Control and safety.

Disadvantages:
- Isolated.
- Difficult for performers to understand things.

Democratic
Advantages:
- Good for developed performers.
- Develops confidence and communication.

Disadvantages:
- Problems with lots of varied opinions.

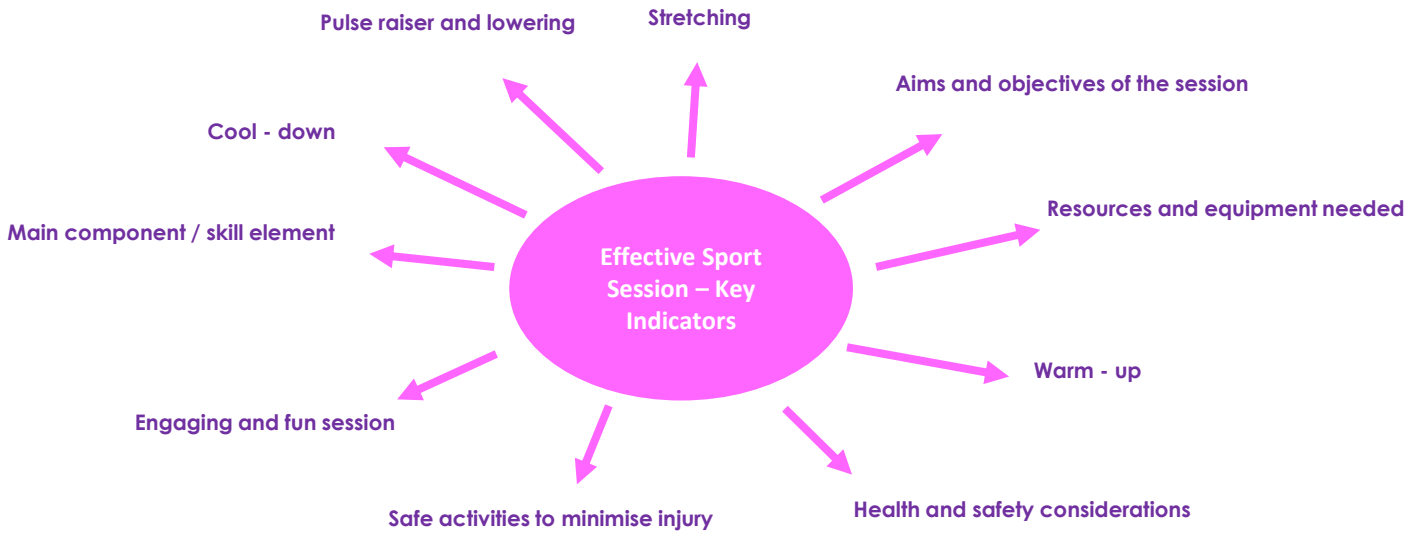
Laissez-faire
Advantages:
- Develops self-confidence.
- Increases understanding of the game played.

Disadvantages:
- Can develop bad techniques in performers.
- No structure.

Ethics and values – Conduct and actions that are honest, fair and responsible. Values are things we place importance on. Good sportsmanship and fair play is needed for coaches and players. Things to encourage include: friendship, equal opportunities, respect, playing in the right spirit.
Rules and regulations – When leading a session a coach must promote good rules and regulations of the sport. Encourage participants to follow the rules and regulations of the sport and make them aware of what happens when rules are broken. Also a safety aspect to teaching rules and regulations for all participants.

UNIT 6: Leading Sports Activities, Learning Aim B

Sports Leaders: | **Undertake the planning and leading of sports activities.**



Warm-up

Key features:

- **Pulse raiser –** gradually increase pulse and heart rate – increases breathing rate and begins to warm up muscles and the body.
- **Mobilise –** Mobilise the main joints in the body and what will be used in the sport. Knees, hips, shoulders, ankles and wrists.
- **Stretching –** Different types of body stretches for the main muscle groups. Deltoids, triceps, biceps, spine, obliques, quadriceps, hamstrings, gastrocnemius, hip flexors.

Main component(s) of activity

Key features:

- **Skill – technical or tactical** elements of a session to help a participant improve their performance. For example, catch / pass.
- **Lots of question and problem to solve** to help improve performance.
- **Knowledge of the sport** – hints and tips to help participants move forward and improve.
- **Success – praise or improvements made** for individuals and the group of participants so they can see themselves getting better.

Leading a sports activity

Demonstration of skills – Using a variety of the skills and advanced skills, attributes and additional qualities that an effective sports leader should have (see Learning Aim A content). Having the confidence and ability to show these skills well throughout leading a session.

Completion of core and wider responsibilities – Ensuring the sessions are safe and all participants and coaches involved are safe and well. All legal documents are in place to help support the delivery of fun and engaging sessions.

Measures of success

Coverage of planned components – sport leaders plan sessions in order to give them structure and allow them to improve participants' performance. It also allows the session to flow and allows the sport leaders to fit all of the session in. Any areas which performers need to improve on can be incorporated in the session plan. A sports leader uses the plan as a guide throughout the session.
Meeting set aims and objectives – Sessions have aims and objectives for the performers. This is to ensure that learning takes place. It gives structure and allows performers to improve their skill and performance. Aims and objectives allow progress and for the performers to have a focus throughout the sessions.

Game play

Key features:

- Participants get to **test themselves in game scenarios** to see how their skills can be used in the match or game.
- Can **create competition**.
- **Fun and engaging** for sessions.
- Provides **problems and challenges for participants**.
- Allows the **coach to see improvements** or where **participants may need to improve further.**

Things to consider:

- **Health and safety –** Sport is a challenge for all who participate. This challenge will involve a mixture of skill, fitness and co-ordination. This means risks and accidents may occur. A sports leader requires the skill to recognise these threats and help prevent them. The leader has the responsibility to ensure the safety of all involved.
- **Risk Assessment –** A risk assessment can help highlight the hazards and risks that may occur in an area. These include risks and hazards around a coaching space or building and some hazards involving participants. Writing these risks down can reduce the risk of them happening.

Organisation of the session – Sports leaders need to ensure they are organised. This includes practically

Safe delivery of the session – A sport leader needs to ensure the health and safety of the participants and even the observers of the sessions. Any activities that take place need to be safe for all participants so that they continue to enjoy sessions and so they avoid physical injury. A sports leader will plan activities that avoid danger and prevent injury. They will also ensure that all areas that are used are safe before any sporting activity takes place.

Cool – down / pulse lowering

Key features:

- Exercising at a very reduced rate – this is a lower intensity level and may include breathing exercises.
- Longer stretching exercises to help prevent injury. This could be self massage or long-hold static stretching.
- Re-hydrate and re-fuel. This means making sure the participants eat and drink correctly after exercise to get fluids and nutrients back in the body to recover.

UNIT 6: Leading Sports Activities, Learning Aim C

Review the planning and leading of sports activities.

Review:
Feedback from participants, supervisor, observers, self-analysis.

Strengths:
- Demonstration of attributes – what did you do well. Delivery methods. Praise to participants and coaching points well delivered.
- Completion of responsibilities – planning thoroughly delivered, content used and adjusted to the group's needs – were the skills and games appropriate for the group?
- Keeping participants engaged and and remaining organised.
- Health and Safety – making sure participants and observers are safe throughout the delivery of the sessions.

Areas of Improvement:

- Did participants understand the session? Were all sections followed?
- Did participants show progress in the session? Completing technique and skills with success, scoring points or goals in the games and meeting the session goals.
- If the session was not fun and enjoyable then could this be improved? Use challenges or different pieces of equipment to give participants challenge.
- Were participant's names used in the session to make them feel comfortable?
- Was the session aims and delivery appropriate to the participants? Was it too easy / too difficult for the participants to have and gain success?
- Making sure barriers are removed if possible. Change of equipment and rules to help improve session.

Targets for development:
- **SMARTER** Targets
- Development plan

S – SPECIFIC: Do not be too vague. Pin point the target focus. E.g. I want to lose weight because . . . / I will use continuous training because.

M – MEASURABLE: Ensuring goals and targets are quantifiable. Can they be checked and completed. E.g. I would like to complete my 5km run in under 30mins / I want to lose 10kg in weight.

A – ACHIEVABLE: Being able to reach a target – it is good to complete goals set. Boosts motivation and morale.

R – REALISTIC: Ensuring you look after your body during training. Goals should be accomplished thinking about obstacles you may need to overcome. E.g. training everyday is unrealistic – the body needs time to rest and recover.

T – TIMED: Setting a time-frame to determine the length of the aim and target. This shows when the goal needs to be achieved by. E.g. I want to be able to run 5km in under 30mins by the end of the 12 week programme.

E – EXCITING: Ensuring that your programme is fun and enjoyable. This will keep participants engaged and focused.

R – RECORDED: Keeping evidence of exercise goals is important to know if it has been achieved in the timescale.

Development Plan:

Aims and Objectives – Make sure aims and objectives were appropriate for the session and the participants. Use of the SMARTER targets to help guide coaches with this. These should be appropriate for future sessions but also for the participants taking part. Ensure both the coaches and participants understand the session aims and objectives.

Goals – Did the session achieve what it was supposed to? Ensure that goals are realistic but these are important in order for sessions and coaches to improve the delivery. These can be short, medium and long term goals to ensure consistent development of coaches. Coaches should be positive on what they do well and set goals from this as well as areas of improvement from previous sessions.

SMARTER Targets – Specific, measurable, achievable, realistic, timed, exciting and recorded.

Activities and Opportunities –What activities could be used again that worked well and which activities may need areas for improvement if they did not work with the participants. Activities should be progressive (get better) and improve for the coaches and participants. What could be suggested to make the sessions more fun or more challenging for participants?

Possible Barriers – What barriers were highlighted for both the participants and coaches? How can these be changed, adapted or improved for future sessions? The development should include how this might be necessary. Include examples that are specific. Are there specific gaps in knowledge or expertise from the coaches that may mean there are restrictions to sessions? There will also be participant barriers that the coaches should be aware of, for example, not having the appropriate kit for an outdoor session when there is poor weather or that participants may miss sessions due to injury, illness or other issues.

Subject: GCSE History – Edexcel 9-1	Unit Title: The early years of the Weimar Republic 1918-1923
Summary of content: **In this topic will study the events in Germany in the years immediately following their defeat during the First World War. I will investigate the new political system set up to run the country and the huge problems it had to face.**	
Learning focus	What do I need to know?
The origins of the Republic 1918-1919	• The legacy of the First World War. The abdication of the Kaiser; the armistice and the revolution 1918-1919. • The creation of the Weimar Republic. The strengths and weaknesses of the constitution.
The early challenges of the Weimar Republic 1919-1923	• The unpopularity of the Weimar Republic – including the 'stab in the back' myth and the Treaty of Versailles. • The challenge from the Left and Right – including the Spartacists, Freikorps and the Kapp Putsch. • The challenges of 1923 – including the invasion of the Ruhr and the impact of hyperinflation.

Timeline

November 11th 1918 – Armistice signed.

January 1919 – The Weimar Republic begins.

January 1919 – Spartacist Uprising

June 1919 – Treaty of Versailles signed

1920 – The Kapp Putsch

January 1923 – French and Belgian occupation of the Ruhr begins.

1923 – Hyperinflation begins

Individuals

Kaiser Wilhelm- A the last German Emperor. He ruled from 1888 to 1918.

Friedrich Ebert – The first elected President of the Weimar Republic. He was President until 1925.

Rosa Luxembourg and Karl Liebknecht – Communist leaders of the Spartacist Uprising.

Wolfgang Kapp – Far-right leader of the Kapp Putsch in 1920.

Terminology	Definition
Weimar Republic	A system that aims to protect the health and well-being of the people. For example by providing health care, pensions and benefits.
Armistice	An agreement to end hostilities in a war.
Dolchstoss	German phrase meaning 'dagger stab'. Related to the stab in the back myth after the First World War.
Coalition government	Two or more political parties working together to form a government when no single political party does not have a majority.
Proportional representation	A voting system whereby the number of votes won by a political party determines the number of seats they get in parliament
Constitution	The rules by which a state is governed.
Freikorps	Private armies set up by right-wing ex-soldiers after the First World War.
Reparations	Money that the Germans had to pay to the victorious countries after World War I as war damages
Putsch	An attempt to seize power by force.
Ruhr	Heavily industrial region of Germany.
Hyperinflation	Extremely high inflation. The value of money falls rapidly and becomes worthless.
Spartacists	A Communist group who wanted to create a new state after World War I.

Subject: GCSE History – Edexcel 9-1	Unit Title: The Weimar recovery - 1923-1929
Summary of content: **In this topic I will investigate the period of Weimar recovery in the Golden Twenties. I will look at the role Gustav Stresemann played in these improvements and what life was like for the people of Germany during this time. I will also learn the early history of Adolf Hitler and the Nazi Party, and understand why the Nazis were so far from power during this time.**	
Learning focus	What do I need to know?
Early development of the Nazi Party, the Munich Putsch and the lean years	• Hitler's early career – including setting up the Nazi Party, features of the Party, the 25 Point Programme and the SA. • The Munich Putsch: Causes, events and consequences. Mein Kampf, the reorganisation of the Nazi Party and the Bamberg Conference. • Reasons for the limited support for the Nazi Party 1924-1928.
The recovery of the Weimar Republic 1924-1929	• Reasons for economic recovery – including the Rentenmark; American investment; and the Dawes and Young Plans. • The impact of Stresemann's foreign policy – including the Locarno Pact, joining the League of Nations and the Kellogg-Briand Pact.
Changes in society 1924-1929	• Changes in the standard of living, the position of women and cultural changes (including architecture, art and the cinema)

Target progress range:	Dev (3-5)	Adv (4-6)	Ma (7-9)
Progress range shown in classwork:	Dev (3-5)	Adv (4-6)	Ma (7-9)

Timeline

1919 – Hitler joins the German Worker's Party (DAP)

1920 – The German Worker's Party is renamed the Nazi Party

1920 - The 25 Point Programme is published.

1921 – Hitler becomes leader of the Nazi Party

1921 – Hitler forms the SA

1923 – Stresemann becomes foreign secretary

November 1923 – The Munich Putsch

1924 – The Dawes Plan

1925 – The Locarno Treaty.

1926 – Germany joins the League of Nations

1926 – The Bamberg Conference secures Hitler's control over the Nazi Party

1928 – The Kellogg-Briand Pact

1929 – The Young Plan

Individuals

Gustav Stresemann- Leading politician of the Weimar Republic at this time. He was first appointed Chancellor in 1923 before becoming foreign secretary from November 1923 until his death in 1929.

Adolf Hitler – Leader of the Nazi Party in Germany from 1921 until his death in 1945.

General Ludendorff – An important leader of the German army during the First World War. Became a critic of the Weimar Republic and took part in the Munich Putsch

Terminology	Definition
Rentenmark	A new currency that was introduced by Stresemann to restore the value of money after hyperinflation.
League of Nations	An international organisation that was set up after the First World War to help maintain peace.
Kellogg-Briand Pact	An international agreement where all of the countries involved promised to solve disputes peacefully.
Locarno Pact	An international agreement where all countries involved promised to maintain the current borders of Europe.
Dawes Plan	An agreement that restructured Germany's annual reparation payments to make them easier to pay..
Young Plan	An agreement that reduced German reparation payments..
Bauhaus	An architectural and design movement
Nazi	Shortened form of the National Socialist German Worker's Party, otherwise known by the initials NSDAP
SA	Hitler's private army set up to protect Nazi meetings and disrupt those of their opponents..
Anti-Semitism	Hatred of Jewish people.
Mein Kampf	Hitler's book written in 1924 while serving time in prison following the Munich Putsch. The title translates as 'My Struggle'..

Subject: GCSE History – Edexcel 9-1	Unit Title: Rise of the Nazis – 1929-1934
Summary of content: **In this topic I will investigate why Hitler and the Nazi Party rose so rapidly in popularity during the Great Depression in the early 1930's. I will look in detail at the reasons why Hitler was given the role of Chancellor of Germany in 1933 and how he had managed to become the dictator of Germany by August 1934.**	
Learning focus	What do I need to know?
Growth in support for the Nazis 1929-1933	• Reasons for the growth in unemployment and the impact on the people of Germany • The failure of the Weimar Republic to deal with unemployment 1929-1933. • Reasons for the growth in support for the Nazi Party – including the appeal of Hitler, propaganda and the work of the SA.
How Hitler became Chancellor of Germany	• Political developments in 1932 – the roles of Hindenburg, Bruning, von Papen and von Schleicher.
Establishment of the dictatorship	• How was Hitler able to become a dictator? Including: The Reichstag Fire; Enabling Act; the banning of trade unions and other political parties; the Night of the Long Knives; the death of Hindenburg; and the army oath.

Timeline

October 1929 – The Wall St. Crash causes the Great Depression in Germany.

September 1930 – Elections see the Nazis achieve 107 seats in the Reichstag

1932 – Unemployment reaches 6 million.

July 1932 – Elections see the Nazis achieve 230 seats in the Reichstag.

January 1933 – Hitler appointed Chancellor of Germany

February 1933 – The Reichstag Fire

March 1933 – The Enabling Act is passed

March 1933 – The first concentration camps are set up in Germany for political prisoners and enemies of the state.

June 1934 – The Night of the Long Knives

August 1934 – Death of Hindenburg and the army swear an oath of allegiance to Hitler

Individuals

Paul von Hindenburg – President of Germany between 1925-1934

Heinrich Bruning – Chancellor of Germany from 1930 until his resignation in 1932.

Franz von Papen– Leader of the Catholic Centre Party. President Hindenburg appointed him as Vice-Chancellor to Adolf Hitler in 1933.

Kurt von Schleicher– Chancellor of Germany between December 1932 and January 1933.

Ernst Rohm – Head of the SA from 1921 until his execution during the Night of the Long Knives in June 1934.

Josef Goebbels – Head of propaganda for the Nazi Party. After 1933 was appointed Minister of Public Propaganda and Enlightenment. Committed suicide in 1945.

Heinrich Himmler – Leader of the SS from 1929 until his death by suicide in 1945.

Terminology	Definition
Wall St. Crash	A financial crisis in the USA that led to the Great Depression in Germany
Propaganda	Information designed to alter people's opinions and promote political ideas.
Dictator	A ruler with absolute power over the country.
Fuhrer	A German title meaning leader.
SS	Schultzstaffel or 'protection squad'. Originally an elite bodyguard for Hitler set up in 1929 . Became an important organisation in the police state after the Night of the Long Knives.
Trade Unions	Organisations set up to protect and improve the rights of workers. Abolished following the Enabling Act..
Lander	State parliaments that independently controlled separate regions in Germany. Abolished following the Enabling Act.
Oath of allegiance	A promise made by the German armed forces to be loyal to Hitler.
Enabling Act	A law that allowed Hitler to pass laws in Germany without consultation with the Reichstag
Night of the Long Knives	An event where Hitler weakens the SA by purging its leaders strengthening his control in Germany.

Subject: GCSE History – Edexcel 9-1	Unit Title: Life in Germany 1933 -1939
Summary of content: **In this topic I will investigate life in Nazi Germany. I will look at the methods of control used by the Nazi Party, as well as how life changed for different groups in society. I will follow the story of minority groups in Germany and how they were treated. I will also look at those that opposed Hitler and the reasons for their limited success.**	
Learning focus	What do I need to know?
Controlling the people	• The police state – including roles of the Gestapo, the SS, the SD, concentration camps and the legal system. • Goebbels and the Ministry of Propaganda – including censorship; the media; rallies; the Berlin Olympics 1936; and control of culture and the arts (art, architecture, literature and film) • Nazi policies towards Catholic and Protestant Churches – including the Reich Church and the Concordat. • Extent of support for the Nazi regime. Opposition to the Nazis from the Church (including Pastor Niemoller) and young people (including the Swing Youth and the Edelweiss Pirates)
Nazi policies towards women, workers and the young	• Nazi views on women and the family – including policies on marriage, employment and appearance. • Nazi aims and policies towards the young – including the Hitler Youth, League of German Maidens and education (including the curriculum and teachers) • Nazi policies to reduce unemployment (including the labour service, autobahns, rearmament and invisible employment) and changes to the standard of living (including The Labour Front, Strength Through Joy and the Beauty of Labour)
The persecution of minorities	• Nazi racial beliefs, policies and treatment of minorities – including Slaves, gypsies, homosexuals and those with disabilities. • The persecution of the Jews – including the 1933 boycott, the Nuremberg Laws and Kristallnacht.

Timeline

1933 – Concordat signed with the Catholic Church

1933 – Law for the Encouragement of Marriage

1934 – The People's Court set up to try cases of treason.

1935 – The Reich Labour Service becomes compulsory.

1935 – The Nuremburg Laws

1936 – The Olympics are held in Berlin.

1936 – Membership of the Hitler Youth made compulsory

1938 – Kristallnacht

April 1939 – Jewish people begin to be moved into ghettos in German cities.

Individuals

Martin Niemoller – A pastor in the Confessional Church. Survived seven years in a concentration camp before being released in 1945.

Terminology	Definition
Concentration camps	Prisons for political prisoners and enemies of the state.
Concordat	An agreement made between the Nazi Party and the Head of the Catholic Chruch (the Pope).
Gestapo	The secret police of the Nazi regime.
Reich Church	Official Protestant Church of the Nazi regime.
Confessional Church	Anti-Nazi Protestant Church set up by Pastor Niemoller.
Aryan	Nazi term for someone from the 'pure' German race.
Censorship	Suppressing information that is contrary to the Nazi message.
Third Reich	The name given by the Nazis to the period of Hitler's control. It means 'Third Empire'.
Edelweiss Pirates	A youth group that rebelled against Nazi ideas.
Hitler Youth	An organisation set up to control the social activities of young people and to convert them to Nazi ideals.
Swing Youth	Young people who challenged Nazi views about the young by listening to jazz music amongst other activities.
Martyr	A person who is persecuted or killed as a result of their beliefs.
Kinder, Kirche, Kuche	Nazi slogan. It means Children, Church and Cooking.
Boycott	Refusal to use or buy services in order to make a point.
The German Mother's Honour Cross	Award given to eligible women who have large numbers of children.
Kristallnacht	The name given to one night of widespread violence against Jewish homes, shops and synagogues.
Nuremberg Laws	A series of laws passed against Jews in Germany that removed their citizenship.
Ghetto	A densely packed area of a city inhabited by one ethnic group.
Eugenics	The scientific study to improve the racial qualities of a population.
League of German Maidens	Youth organisation set up to promote Nazi ideals in young girls.
German Labour Front	A Nazi controlled organisation that replaced trade unions.
Beauty of Labour	A department of Strength Through Joy that was focused on improving working conditions.
Rearmament	Building up armed forces.
Reich Labour Service	A scheme set up to provide young men with jobs.
Strength Through Joy	A Nazi controlled organisation designed to provide leisure opportunities to German workers.

Year 10 Summer Term Knowledge Organiser Music

Composition Techniques checklist

Use different starting points, for example:

- melodic ideas and fragments
- rhythmic patterns
- chords and chord progressions
- harmonic systems
- textures
- riffs and hooks
- sound palettes
- improvisation and experimentation
- non-musical starting points such as themes , texts and images.

Reviewing and evaluating your composition

1. What ideas have you composed?
2. What techniques did you use to develop your composition?
3. What sections of music have you added to your composition?
4. What do you need to improve next time?
5. Are there any techniques you need to add to develop your compositions further?

compositional techniques:

- repetition
- sequence
- decoration
- variation
- modulation
- changing tonality
- transposition
- use of contrast
- transformations, e.g. inversion, retrograde, retrograde inversion
- cut and paste techniques
- processes, e.g. canon, phasing, addition, subtraction, augmentation, diminution, displacement
- instrumentation
- textures, e.g. polyphonic, homophonic, unison, octaves, counterpoint
- chord voicings/inversions.

Year 10 Summer Term Knowledge Organiser Music

INDEPENDENT LABELS:

A record label that doesn't have the funding of major record labels.

The Artic Monkeys started on an indie label, and artists (like Adele) move to an **INDIE** label after becoming famous with a major label.

Macklemore owns his own indie label.

ADVANTAGES:

- ✓ Fewer artists, so can spend more time 1:1 with the artist
- ✓ Fairer contracts, with a more even split
- ✓ More time spent working together means better working relation
- ✓ The artist has more creative freedom

DISADVANTAGES:

- × Less funds to make & record the records
- × Less funds to publicise & promote
- × Fewer employees means less structured
- × Can have fewer contacts

MAJOR RECORD COMPANIES:

The big **THREE** record labels:

[As of Sept 2018, these owned 70+% of the market]

WARNER MUSIC GROUP

UNIVERSAL MUSIC GROUP

SONY MUSIC

Manages scouting (A&R), trademarks/brands, production, manufacture, distribution, promotion and copyright of music recordings and music videos.

ADVANTAGES:

- ✓ Due to large size, can get the good deals on manufacturing, advertising, and links to the media
- ✓ Links with industry experts, especially in promotion
- ✓ Many connections with other labels/artists
- ✓ Lots of money to invest

DISADVANTAGES:

- × Difficult to stand out in big pool of artists
- × Deals often in favour of the company, and not the artist
- × Less creative control
- × Mass media driven, rather than interested in artist's style

Large record companies own **SUBLABELS** that specialise in a certain country/genre/niche:

ATLANTIC RECORDS
owned by Warner Music

COLUMBIA RECORDS
owned by Sony Music

ISLAND RECORDS
owned by Universal Music

Year 10 Summer Term Knowledge Organiser Music

Music Venues & Considerations

HEALTH

- First aid qualified staff
- Hygienic toilets
- Drinking water
- No smoking policy
- Accessibility: ramps/mobility

SAFETY

- Heating, lighting, ventilation
- Electrical equipment secured
- Obstacles highlighted
- Fire exits clear and labelled
- Secure scaffolding/staging

SECURITY

- Staff ID cards/lanyards
- SIA approved security staff
- Controlling flow in/out
- Ticket & bag checking
- Max capacity adhered to

5 HEALTH & SAFETY ADVISERS: HSE (HEALTH & SAFETY EXECUTIVE), POLICE, FIRE, AMBULANCE/NHS, COUNCIL

LARGE MUSIC VENUES

- Arena
- Stadium
- Festival
- Theatre
- Concert Hall

ADVANTAGES:

- ✓ Excellent sound & technical facilities/equipment
- ✓ Much larger promotional and publicity opportunities
- ✓ Can charge more for tickets
- ✓ More seats available to sell
- ✓ Enhances image of artists

DISADVANTAGES:

- × Large cost of hiring venue (financial risk)
- × Need a certain level of fame to make profit
- × Less intimate interaction with audience
- × More organisations needed to make event run, so profit needs to be divided

SMALL & MEDIUM MUSIC VENUES

- Pubs
- Bars
- Town Hall
- School Hall
- Small theatre

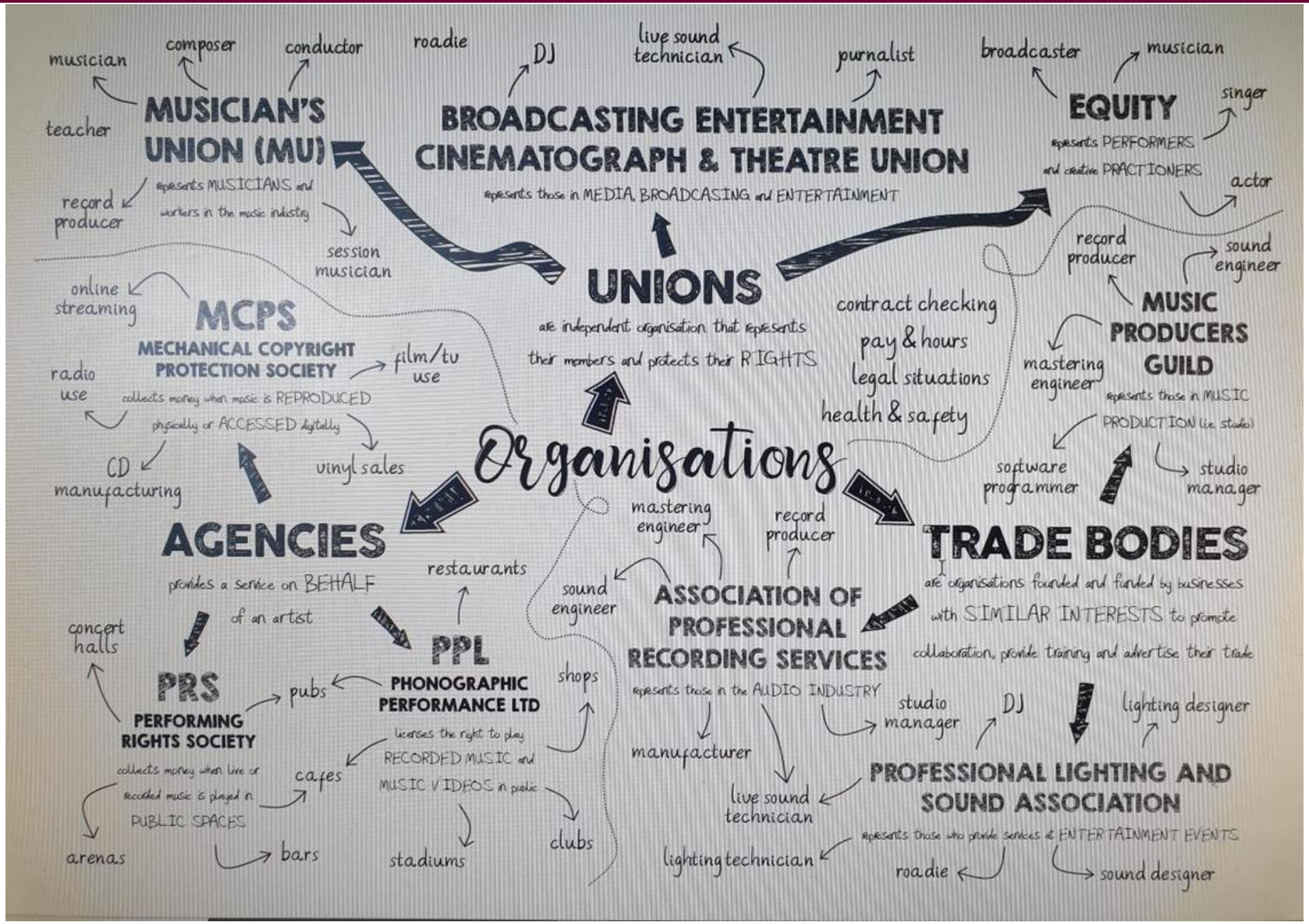
ADVANTAGES:

- ✓ Intimate atmosphere
- ✓ Accessible to local bands
- ✓ Caters to the community - they know the type of venue and will build up a following of regulars
- ✓ Cheaper to hire or can be free (i.e. open mic night)

DISADVANTAGES:

- × Not as good sound/technical facilities
- × Limited audience numbers
- × Less opportunities to promote/publicise
- × Less opportunities to make large profits

Year 10 Summer Term Knowledge Organiser Music



Macbeth Knowledge Organiser

Act One	The play opens with three witches chanting on 'the heath'. In the next scene we hear a battle report in which a soldier Macbeth bravely fought in a battle to defend Scotland. On the return from battle, Macbeth and Banquo meet the three witches. The witches prophesy that Macbeth will be promoted twice: to Thane of Cawdor and King of Scotland. Banquo's descendants will be kings, but Banquo isn't promised any kingdom himself *'lesser than Macbeth and greater'.*. Soon afterwards, King Duncan names Macbeth Thane of Cawdor as a reward for his success in the recent battles. The promotion seems to support the prophecy. The King then proposes to make a visit to Macbeth's castle. Lady Macbeth receives news from her husband about the prophecy and his new title. Lady Macbeth vows to help him become king.
Act Two	Macbeth returns to his castle, followed almost immediately by King Duncan. Macbeth and Lady Macbeth discuss a plot to kill Duncan, we see lots of conflict in their relationship here as Lady Macbeth begins to manipulate Macbeth. Once they have agreed to kill the king, Lady Macbeth gives the guards drugged wine so Macbeth can enter and kill the King. Macbeth regrets this almost immediately, but his wife reassures him. She leaves the bloody daggers by the dead king just before Macduff arrives. Macduff, the Thane of Fife, discovers the murder 'O horror, horror, horror…'. Macbeth kills the drunken guards in a show of rage and retribution. Duncan's sons, Malcolm and Donalbain, flee, fearing for their own lives.
Act Three	Macbeth becomes King of Scotland but starts to become consumed with feelings of guilt and doubt. He remembers the prophecy that Banquo's descendants will inherit the throne and grows paranoid about Banquo. He arranges for Banquo and his son Fleance to be killed. Banquo is murdered, but his son escapes the assassins. At his state banquet that night, Macbeth sees the ghost of Banquo, a symbol of his guilt, and worries the courtiers with his mad response. Lady Macbeth dismisses the court and tries to calm her husband but is unsuccessful.
Act Four	Macbeth returns to find the witches as he begins to feel more uncertain about his future. The witches say that he will be safe until a local wood, Birnam Wood, marches into battle against him. He also need not fear anyone born of woman. They also prophesy that the Scottish succession will still come from Banquo's son. Macbeth embarks on a reign of terror, killing many, including Macduff's family. Macduff had gone to seek Malcolm (one of Duncan's sons who fled) at the court of the English king. Macduff persuades Malcolm to lead an army against Macbeth.
Act Five	Macbeth is in his remote castle at Dunsinane, where he feels safe, until he is told that Birnam Wood is moving towards him. Malcolm's army carrying branches from the forest as camouflage for their assault on Macbeth. Meanwhile, an overwrought and guilty Lady Macbeth begins to sleepwalk and tells her secrets to her doctor. She commits suicide. The final battle commences. Macbeth begins to realise that he will not win, and in the midst of a losing battle, Macduff challenges Macbeth. Macbeth learns Macduff is the child of a caesarean birth and submits to his enemy. Macduff triumphs and brings the head of the traitor Macbeth to Malcolm. Malcolm declares peace and goes to Scone to be crowned king.

Macbeth Knowledge Organiser

Macbeth: Main protagonist, tragic hero, brave in battle, ambitious, easily manipulated, tyrannical, guilt driven, insecure. *Macbeth is the main protagonist who begins the play as a hero in battle but is easily manipulated with the fatal flaw od ambition. He slowly descends into madness and desperation as he becomes obsessed with the witches prophecies of power.*	**Lady Macbeth**: Ambitious, lust for power, manipulative, controlling, emasculating, duplicitous, subvert stereotypes of Jacobean women, *Lady Macbeth is Macbeth's wife. She controls Macbeth use her influence over him to drive him into making the decision to kill Duncan. At the end of the play, she cannot escape the consequences of her actions and dies as a result of her guilt.*	**Banquo**: brave, noble, loyal, father, friend to Macbeth at the beginning, later returns to haunt Macbeth as a symbol of guilt. *Banquo is a loyal, noble character who is a soldier in the play like Macbeth, At the beginning of the play we see Macbeth and Banquo together, as heroes and equal. After the witches prophecies they both begin to take different paths with Banquo choosing to ignore the witches prophecies. Banquo is murdered by Macbeth and later returns to haunt him at the state banquet.*
Duncan: Rightful king, beloved, compassionate, mentor, trusting, some argued flawed. *Duncan is the rightful king of Scotland. He awards Macbeth the honour of Thane of Cawdor after his heroics in battle. Duncan is murdered by Macbeth.*	**Macduff:** loyal to the rightful king, dubious and hostile towards Macbeth, noble. *Macduff becomes suspicious of Macbeth and goes to England to persuade Malcolm to bring an army to fight Macbeth. While away, Macduff's wife and child are killed on Macbeth's orders. Macduff returns with Malcolm and the army to kill Macbeth.*	**The Witches:** Ruthless, Suspicious, untrustworthy, manipulative. *The witches prophecies are the catalyst of the events in the play. They directly influence Macbeth with the temptation of a powerful future which sparks his ambition. Macbeth later returns to the witches for further prediction.*

Themes:		
Ambition	**Guilt**	**Power**
The Supernatural	**Appearance vs Reality**	**Kingship**

Context		
Jacobean Era	**The Divine Right of Kings**	**The Gunpowder Plot**
Attitude to the Supernatural	**Jacobean Women**	**Religion**

Year 10 Enterprise & Marketing SUMMER Term Knowledge Organiser R065

Customer Profiles

A Customer Profile is a detailed description of a business's main target customer. They're really specific depictions, so they often include the customer name and picture as well as other key details such as their age, gender, spending habits and lifestyle.

Market Segmentation

Market segmentation is the process of dividing a market into groups – customers are grouped based on key characteristics such as their **age**, **gender**, **occupation**, **income** or **lifestyle**.

A women's magazine, for example, segments their market based on gender. Businesses segment their market so they can tailor products to suit their target audience and so they can focus their marketing at their target customer.

Market Research

Anything a business does to find out potential customers' wants and needs is called market research.

Primary methods of research generate new data through **surveys**, **focus groups**, **observations** and **interviews**. Data can be expensive to gather, especially if a large amount is needed, but it will be more likely to suit a business's research needs.

Secondary sources of market research, such as **competitor research**, **government publications** and **published materials** (**books** and **magazines**) use data that already exists. Data is cheaper to obtain and quicker as it has already been generated. The data might not be fully applicable to the business's research needs though.

Customer Profile Example

Name: Gary Asher
Age: 39
Occupation: Decorator

Gary lives in Derby with his wife who he married in 2015 and their two children Essie and Abbie.

He works full time and, as he has two young children, lives a busy life. He enjoys eating out with his family and plays football at the weekend with a group of friends. He is trying to save as much money as possible to put towards a new house.

R065

Knowledge Organiser

Key Calculations

Revenue:

Selling Price x Number Sold

Total Costs:

Fixed Costs + (Variable Cost for 1 x Number Sold)

Profit or loss:

Revenue – Total Costs

It's a loss if the answer is negative

Break-even:

$$\frac{\text{Fixed Costs}}{\text{Selling Price} - \text{Variable Cost per Unit}}$$

The answer is given in units, not pounds

Pricing

When businesses set a price for a product or service, they consider many factors including being able to cover their costs in order to make a **profit**.

Pricing strategies are specific approaches businesses can use when setting their prices and include:

Competitive Pricing – where businesses base their prices on those of their rivals.

Psychological Pricing – where businesses avoid round/whole numbers for their prices.

Price Skimming – where businesses set a high price for a new product and lower this price over time.

Price Penetration – where businesses set a low initial price, later increasing this price.

Risk and Viability

Setting up a new business or launching a new product can be **risky** for a business. Market research helps reduce this risk.

Viability refers to how successful a product might be – often based on finances – is the break-even point realistic, for example.

HSC – Component 2:Health and Social Care Services and Values Knowledge Organiser

Providing good health and social care services is very important and a set of 'care values' exist to ensure this happens. Care values are important because they enable people who use health and social care services to get the care they need and to be protected from different sorts of harm.

Learning Aim A: Understand the different types of health and social care services and barriers to accessing them

A1 Health and social care services - Different health care services and how they meet service user needs

a) Primary care – G.P. dental care, optometry, community health care
b) Secondary & tertiary care, e.g. specialist medical care
c) Allied health professionals, e.g. physiotherapy, occupational therapy, speech and language therapy, dieticians

Different social care services and how they meet service user needs

a) Services for children and young people, e.g. foster care, residential care, youth work
b) Services for adults or children with specific needs (learning disabilities, sensory impairments, long-term health issues) e.g. residential care, respite care, domiciliary care
c) Services for older adults, e.g. residential care, domiciliary care
d) Role of informal social care provided by relatives, friends and neighbours

A2 Barriers to accessing services - Types of barriers and how they can be overcome by the service providers and users

a) Physical barriers, e.g. issues getting into/ around the facilities
b) Sensory barriers, e.g. hearing and visual difficulties
c) Social, cultural and psychological barriers, e.g. lack of awareness, differing cultural beliefs, social stigma, fear of loss of independence
d) Language barriers - differing first language, language impairments
e) Geographical barriers - distance of provider, poor transport links
f) Intellectual barriers, e.g. learning difficulties

g) Resource barriers for service provider, e.g. staff shortages, lack of local funding, high local demand
h) Financial barriers, e.g. charging for services, cost of transport, loss of income while accessing services

Learning Aim B: Demonstrate care values and review own practice

B1 Care values

1. Empowering and promoting independence by involving individuals, where possible, in making choices
2. Respect for the individual by respecting service users' need, beliefs and identity
3. Maintaining confidentiality
4. Preserving the dignity of individuals to help them maintain privacy and self-respect
5. Effective communication that displays empathy and warmth
6. Safeguarding and duty of care
7. Promoting anti-discriminatory practice by being aware of types of unfair discrimination and avoiding discriminatory behaviour

B2 Reviewing own application of care values

Key aspects of how to review

a) Identifying own strengths and areas for improvement against the care values
b) Receiving feedback from teacher or service user about own performance
c) Responding to feedback and identify improve own performance

Year 10 Art and Design Summer Term 3 Knowledge Organiser

Key Terms and Meanings:

Artist- Someone who paints/designs for a living.

Media- Different materials

Scale- How big or small an object is.

Reflect- Looking back at your work and deciding how you could improve something.

Adapt- Changing things, so that they work better.

Development- Looking back at your work and noticing how you have progressed.

Annotation- Writing notes and descriptions beside your work in order to understand what it is you have created.

Composition: The arrangement of lines colors and form.

Contrast: Created by using opposites near or beside one another, such as a light object next to a dark object or a rough texture next to a smooth texture.

Perspective: Creates the feeling of depth using lines that make your image appear to be three dimensional. The closer the image is, the more detailed it will appear, and the larger it will be.

Year 10 GCSE Fine Art Summer Term 3 Knowledge Organiser

Assessment Objective: A04

Present a personal and meaningful response that realises intentions.

- Produce test pieces
- Create a quick plan and sketch this out
- Create final piece idea 1
- Annotate your first idea
- Create final piece idea 2
- Annotate and differences
- Ensure a final piece has a strong link 'Light and Dark'
- Create a final piece which is longer than 10 hours
- Complete an evaluation

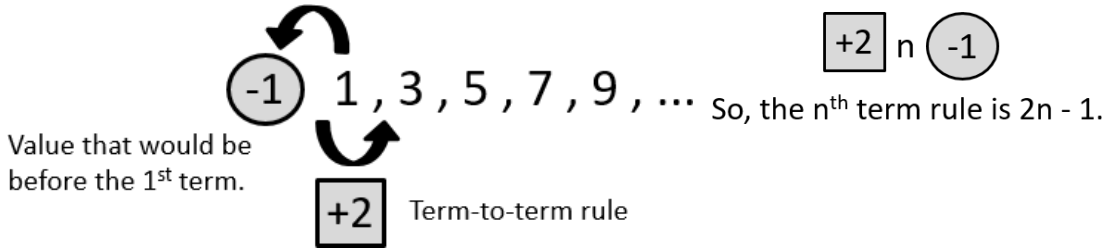
Rough draft	A basic sketch of a idea for final outcome/final piece.
A visual	Several small image or model created in selected materials.
Final piece	An image pulling all preparatory work together (conclusion to all work).

Year 10 Summer Term Knowledge Organiser for Maths

Sequences

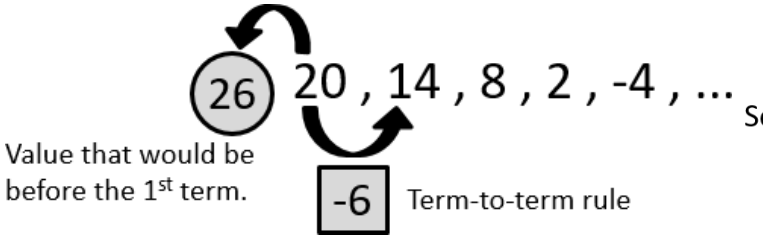
Nth Term

Expression for the general rule for a sequence to be able to calculate any term when given the position. Also known as a position to term rule:



+2 n -1

So, the nth term rule is 2n - 1.



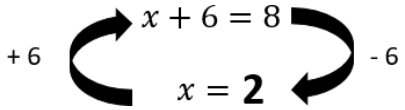
-6 n +26

So, the nth term rule is -6n +26.

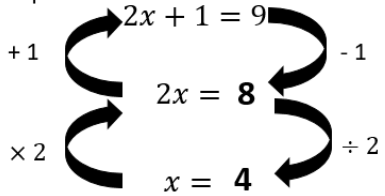
Solving Equations

Solving One Step Equations

Finding the value of an unknown by identifying operations performed and doing the inverse operation:

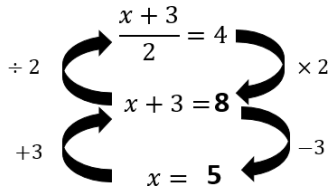


Solving Two Step Equations Finding the value of an unknown by identifying operations performed and doing the inverse operation:



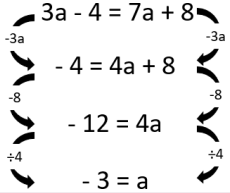
Solving Equations involving Fractions

Finding the value of an unknown. To eliminate a denominator, multiply every term by the denominator:



Solving Equations with Unknowns on Both Sides

Add/subtract the smallest algebraic term from both sides:



Forming and Solving Equations

Forming Equations

Many of the situations where an equation is formed uses other areas of maths such as area, perimeter, money, angle facts etc.

Create an expression first using the information in the question and then solve the equation using the balance method.

Forming Equations Example:

James thinks of a number. Kate's number is 14 less than James' number. The sum of their numbers is 212. What is Kate's number?

Let James' number be *n*, this means Kate number is $n - 14$.

$n + n - 14 = 212$

$2n - 14 = 212$

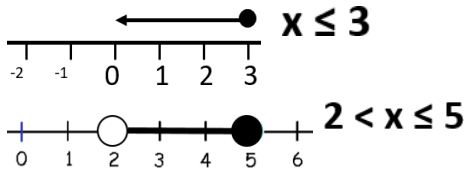
Then solve to find the value of *n*.

$n = 113$, so Kate's number is 99.

Inequalities

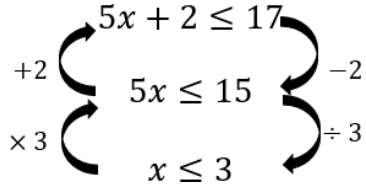
Inequalities on a Number Line

If the inequality is 'or equal to' (≤, ≥), the circle is filled in. If it is not (<, >), the circle is not filled in:



Solving Linear Inequalities

Solve like an equation, but replace the = sign with the inequality:



Year 10 Summer Term Knowledge Organiser for Maths

Factorising

Factorising
Taking the highest common factor of terms outside of the bracket:

$$6x^2 + 15x$$

HCF: $3x$

$$3x(\boxed{2x}\ \boxed{+5})$$

$6x^2 \div 3x$ $\quad$ $15x \div 3x$

Factorising Quadratics
To factorise an expression in the form $x^2 + bx + c$ find two numbers which add up to b, and which multiply to make c.

$$x^2 + 5x + 6$$

Factors of 5 are: 1 x 6 and 2 x 3

1 + 6 = 7 and 2 + 3 = 5

Therefore correct factors to use are 2 and 3

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

Factorising Quadratics with Negative Terms

$$x^2 - 7x + 10$$

Factors of 10: 1x10, 1x –10, 2 x 5, –2x –5

Choose the pair that sum to –7

–2 + – 5 = – 2 – 5 = – 7

Correct factors to use are – 2 and – 5

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

Difference of two squares
Factorise $x^2 - 16$

Here both terms are square numbers.

As there is no x term, the two numbers which are factors of 16, must sum to 0.

4 x – 4 = – 16

4 + – 4 = 0 which will give no x term.

$$(x + 4)(x - 4)$$

Indices

Laws of Indices

$a^m \times a^n = a^{m+n}$ $\quad$ $2^7 \times 2^3 = 2^{10}$

$a^m \div a^n = a^{m-n}$ $\quad$ $2^7 \div 2^3 = 2^4$

$(a^m)^n = a^{m \times n}$ $\quad$ $(2^7)^3 = 2^{21}$

$a^0 = 1$ $\quad$ $2^0 = 1$

Negative Indices

$a^{-n} = \frac{1}{a^n}$ $\quad$ $3^{-2} = \frac{1}{3^2} = \frac{1}{9}$

Fractional Indices

$a^{\frac{1}{n}} = \sqrt[n]{a}$ $\quad$ $125^{\frac{1}{3}} = \sqrt[3]{125} = 5$

Standard Form

Standard Form
Used to write large and small numbers concisely.

In standard form, numbers are written as

$$a \times 10^n$$

Where $1 \leq a < 10$ and n is an integer.

Large Numbers
Large numbers are written like this…

$473\,000 = 4.73$

$= 4.72 \times 10^5$

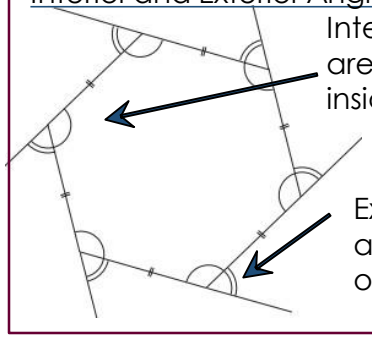
Small Numbers
Small numbers are written like this…

$$0.000537 = \frac{537}{10\,000}$$

$$= 5.37 \times 10^{-4}$$

Angles in Polygons

Interior and Exterior Angles



Interior angles are on the inside.

Exterior angles are on the outside.

The Sum of Interior and Exterior Angles
Interior and exterior angles always add up to 180^0

Remember angles on a straight line add up to 180°

The Sum of all Interior Angles
Sum of Interior Angles = (n – 2) x 180

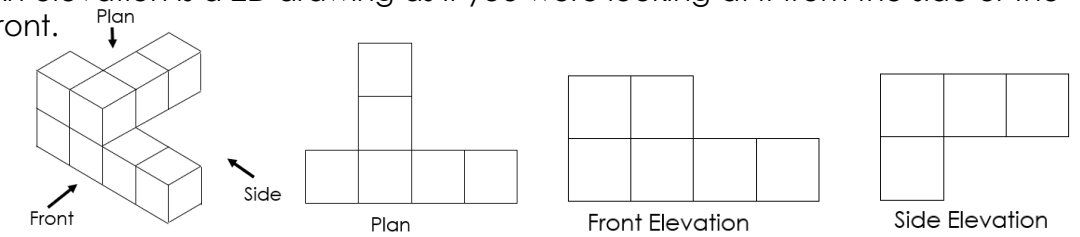
Where n is the number of sides.

The Sum of all Exterior Angles
Sum of Exterior Angles = 360°

Plans and Elevations

Plans and Elevations
A plan is a 2D drawing of a shape as if you were looking at it from above.

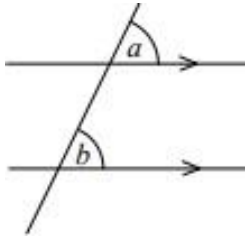
An elevation is a 2D drawing as if you were looking at it from the side or the front.



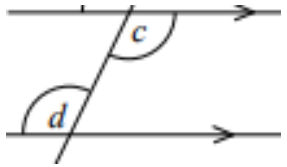
Year 10 Summer Term Knowledge Organiser for Maths

Angles in Parallel Lines

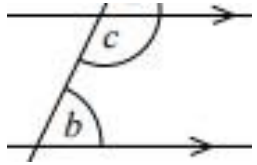
Corresponding
Corresponding angles are equal, a = b.



Alternate
Alternate angles are equal, c = d.



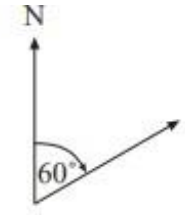
Co-Interior
Co-interior angles add up to 180.



b + c = 180^0.

Bearings

Bearings
Start at North.
Go clockwise.
Have 3 figures.

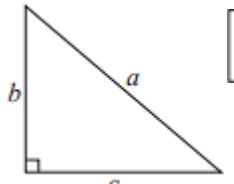


Bearing 060 °

Bearing 330 °

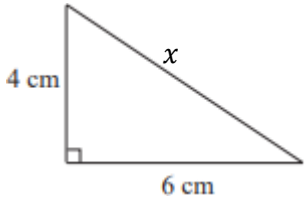
Pythagoras

Pythagoras Theorem can be used to find missing sides of right-angled triangles.



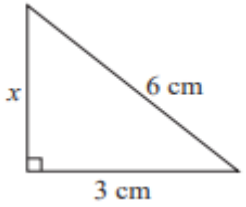
$$a^2 = b^2 + c^2$$

Pythagoras – finding the hypotenuse:



$$x^2 = 4^2 + 6^2$$
$$x^2 = 52$$
$$x = \sqrt{52}$$
$$x = 7.2cm$$

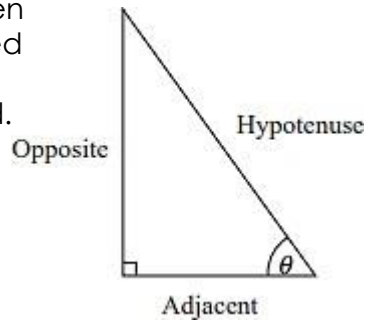
Pythagoras – finding the shorter side:



$$6^2 = x^2 + 3^2$$
$$6^2 - 3^2 = x^2$$
$$x^2 = 27$$
$$x = \sqrt{27}$$
$$x = 5.2cm$$

Trigonometry

Trigonometry is used when angles need to be considered.

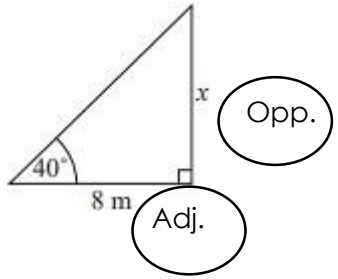


$$Sin\theta = \frac{opposite}{hypotenuse}$$

$$Cos\theta = \frac{adjacent}{hypotenuse}$$

$$Tan\theta = \frac{opposite}{adjacent}$$

Trigonometry – Finding a missing side:



$$Tan\theta = \frac{opposite}{adjacent}$$

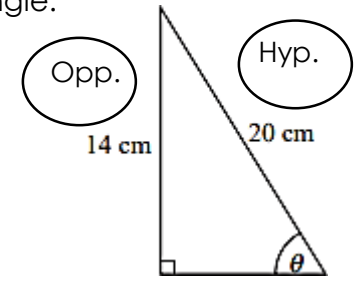
$$tan40° = \frac{x}{8}$$

$$8tan40° = x$$

$$x = 8tan40°$$

$$x = 6.7\ metres\ to\ 1\ dp$$

Trigonometry – Finding a missing angle:



$$Sin\theta = \frac{opposite}{hypotenuse}$$

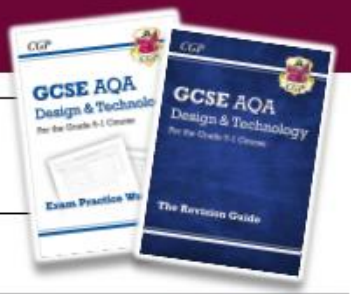
$$Sin\theta = \frac{14}{20}$$

$$\theta = sin^{-1}\left(\frac{14}{20}\right)$$

Using 'shift' and 'sin; for 'sin^{-1}' gives…

$$\theta = 44.4°\ to\ 1\ dp$$

Y10 Design Technology Summer Term Knowledge Organiser



Revision Guides year 10 learners are asked to use the Revision Guide books they have been given to support learning and revise for GCSE AQA Design and Technology.

Product Sustainability

Including Planned Obsolescence

Hardwoods VS Softwoods

Beech
Oak
Ash
Teak

Comes from **deciduous** trees

This is a broad-leaved tree which looses its leaves in the winter.

Pine
Spruce
Cedar
Fir

Comes from **coniferous** trees

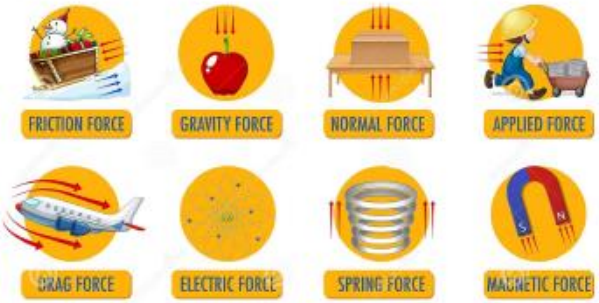
This tree is an evergreen (green all year), needle-leaved, cone-bearing tree.

Smart Materials

Powering Systems

Primary and Secondary processing

TYPES OF FORCE



Be able to identify specific polymers

Primary Processing of Materials

Drawing techniques

Ergonomics and Anthropometrics

Electronic Systems

Topic 3
Distinctive Landscapes

What is a landscape?

A landscape has visible features that make up the surface of the land. Landscapes can be broken down into four 'elements'.

Landscape Elements

Physical	Biological
• Mountains • Coastlines • Rivers	• Vegetation • Habitats • Wildlife
Human	**Variable**
• Buildings • Infrastructure • Structures	• Weather • Smells • Sounds/Sights

Relief of the UK

Relief of the UK can be divided into uplands and lowlands. Each have their own characteristics.

Key

Lowlands

Uplands

Areas +600m: Peaks and ridges cold, misty and snow common. i.e. Scotland

Areas -200m: Flat or rolling hills. Warmer weather. i.e. Fens

Erosion

The break down and transport of rocks – smooth, round and sorted.

Attrition	Rocks that bash together to become smooth/smaller.
Solution	A chemical reaction that dissolved rocks.
Abrasion	Rocks hurled at the base of a cliff to break pieces apart.
Hydraulic Action	Water enters cracks in the cliff, air compresses, causing the crack to expand.

Transportation

A natural process by which eroded material is carried/transported.

Solution	Minerals dissolve in water and are carried along.
Suspension	Sediment is carried along in the flow of the water.
Saltation	Pebbles that bounce along the sea/river bed.
Traction	Boulders that roll along a river/sea bed by the force of the flowing water.

Glaciation in the UK

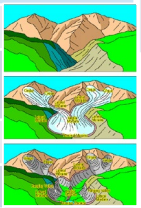
Over many thousands of years, glaciation has made an impression on the UK's landscape. Today, much of upland Britain is covered in u-shaped valleys and eroded steep mountain peaks.

During the ice age

Ice covered areas eroded and weathered landscapes to create dramatic mountain scenery.

After the ice age

Deep valleys and deposition of sediment revealed



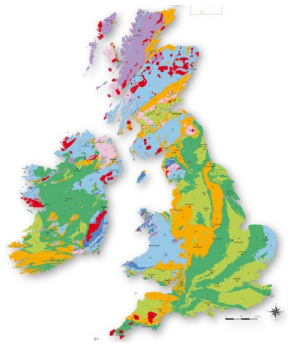
Geology of the UK

The UK is made from a variation of different rock types. The varied resistance of these rocks influences the landscape above.

Igneous Rock
Volcanic/molten rock brought up to the Earth's surface and cooled into solid rock.

Sedimentary Rock
Made from broken fragments of rock worn down by weathering on Earth's surface.

Metamorphic Rock
Rock that is folded and distorted by heat and pressure.



Soil & Landscape

- Soils are created from weathered rocks, organic material and water. Rock types have influence over fertility of soil.
- Low-laying areas such as the Cambridgeshire Fens have deep soil whereas uplands have thin soil.
- Deep soil is more often associated with deciduous woodland rather than coniferous woodlands.

Human activity on Landscape

Farming has changed the vegetation which grows there.	**Much of the rural landscape has been replaced by urban sprawls.**	**Infrastructure such as roads and pylons cover most of the UK.**
Over thousands of years, much of the UK's woodlands have gone.	**Increasing population of the UK means more houses are needed.**	**UK's marshes and moorlands are heavily managed by people.**

Climate and Weather in the UK

The variations of climate and weather means there are different influences on the UK's landscape.

Climate

The rainfall map of the UK shows variations in average rain.

- **Less** precipitation occurs in low land areas. East England
- **Most** precipitation occurs in upland areas. Scotland.

These differences mean…
Uplands experience more weathering, erosion and mass movement.

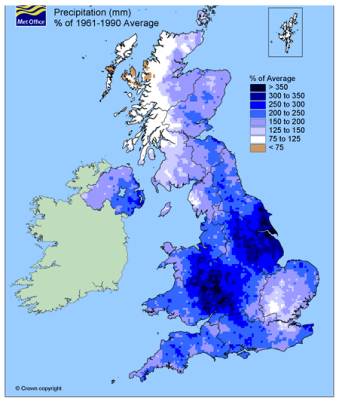
Weathering

Mechanical
Caused by the physical action of rain, frost and wind.

Chemical
Action of chemicals within rain dissolving the rock.

Biological
Rocks that have been broken down by living organisms.

Average rainfall in the UK

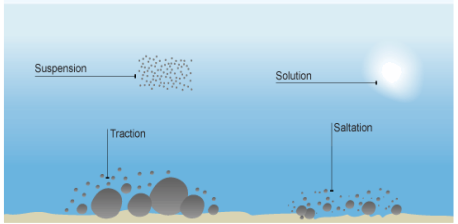


Freeze-thaw weathering

Stage One
Water seeps into cracks and fractures in the rock.

Stage Two
When the water freezes, it expands about 9%. This wedges apart the rock.

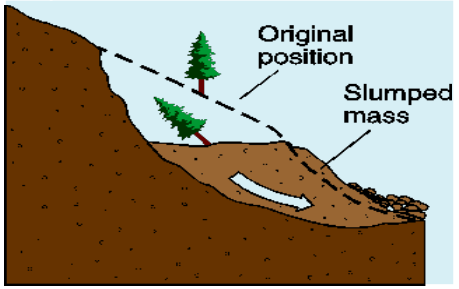
Stage Three
With repeated freeze-thaw cycles, the rock breaks off.



Mass Movement

A large movement of soil and rock debris that moves down slopes in response to the pull of gravity in a vertical direction.

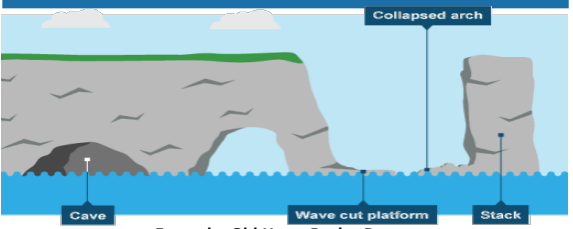
1	Rain saturates the permeable rock above the impermeable rock making it heavy.
2	Waves or a river will erode the base of the slope making it unstable.
3	Eventually the weight of the permeable rock above the impermeable rock weakens and collapses.
4	The debris at the base of the cliff is then removed and transported by waves or river.



Deposition

When the sea or river loses energy, it drops the sand, rock particles and pebbles it has been carrying. This is called deposition.

Formation of Coastal Stack



Example: Old Harry Rocks, Dorset

1) Hydraulic action widens cracks in the cliff face over time.
2) Abrasion forms a wave cut notch between HT and LT.
3) Further abrasion widens the wave cut notch to from a cave.
4) Caves from both sides of the headland break through to form an arch.
5) Weather above/erosion below –arch collapses leaving stack.
6) Further weathering and erosion eaves a stump.

Coastal Defences

Hard Engineering Defences

Groynes	Wood barriers prevent longshore drift, so the beach can build up.	✓ Beach still accessible. ✗ No deposition further down coast = erodes faster.
Sea Walls	Concrete walls break up the energy of the wave . Has a lip to stop waves going over.	✓ Long life span ✓ Protects from flooding ✗ Curved shape encourages erosion of beach deposits.
Gabions or Rip Rap	Cages of rocks/boulders absorb the waves energy, protecting the cliff behind.	✓ Cheap ✓ Local material can be used to look less strange. ✗ Will need replacing.

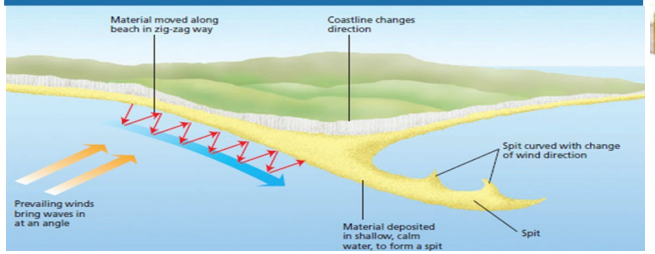
Soft Engineering Defences

Beach Nourishment	Beaches built up with sand, so waves have to travel further before eroding cliffs.	✓ Cheap ✓ Beach for tourists. ✗ Storms = need replacing. ✗ Offshore dredging damages seabed.
Managed Retreat	Low value areas of the coast are left to flood and erode naturally.	✓ Reduce flood risk ✓ Creates wildlife habitats. ✗ Compensation for land.

Formation of Bays and Headlands

1) Waves attack the coastline.
2) Softer rock is eroded by the sea quicker forming a bay, calm area cases deposition.
3) More resistant rock is left jutting out into the sea. This is a headland and is now more vulnerable to erosion.

Formation of Coastal Spits - Deposition



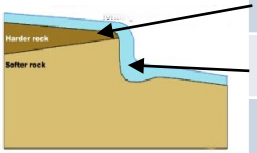
Example: Spurn Head, Holderness Coast

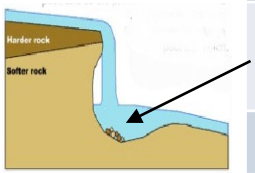
1) Swash moves up the beach at the angle of the prevailing wind.
2) Backwash moves down the beach at 90° to coastline, due to gravity.
3) Zigzag movement (Longshore Drift) transports material along beach.
4) Deposition causes beach to extend, until reaching a river estuary.
5) Change in prevailing wind direction forms a hook.
6) Sheltered area behind spit encourages deposition, salt marsh forms.

Upper Course of a River

Near the source, the river is flows over steep gradient from the hill/mountains. This gives the river a lot of energy, so it will erode the riverbed vertically to form narrow valleys.

Formation of a Waterfall



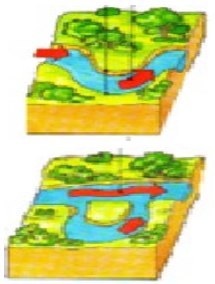


1) River flows over alternative types of rocks.
2) River erodes soft rock faster creating a step.
3) Further hydraulic action and abrasion form a plunge pool beneath.
4) Hard rock above is undercut leaving cap rock which collapses providing more material for erosion.
5) Waterfall retreats leaving steep sided gorge.

Middle Course of a River

Here the gradient get gentler, so the water has less energy and moves more slowly. The river will begin to erode laterally making the river wider.

Formation of Ox-bow Lakes



Step 1

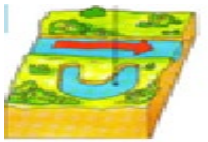
Erosion of outer bank forms river cliff. Deposition inner bank forms slip off slope.

Step 2

Further hydraulic action and abrasion of outer banks, neck gets smaller.

Step 3

Erosion breaks through neck, so river takes the fastest route, redirecting flow



Step 4

Evaporation and deposition cuts off main channel leaving an oxbow lake.

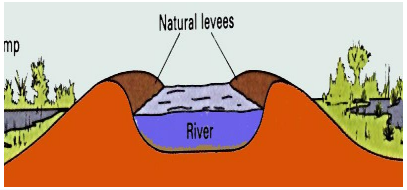
Lower Course of a River

Near the river's mouth, the river widens further and becomes flatter. Material transported is deposited.

Formation of Floodplains and levees

When a river floods, fine silt/alluvium is deposited on the valley floor. Closer to the river's banks, the heavier materials build up to form natural levees.

✓ Nutrient rich soil makes it ideal for farming.
✓ Flat land for building houses.



River Management Schemes

Soft Engineering

Afforestation – plant trees to soak up rainwater, reduces flood risk.
Demountable Flood Barriers put in place when warning raised.
Managed Flooding – naturally let areas flood, protect settlements.

Hard Engineering

Straightening Channel – increases velocity to remove flood water.
Artificial Levees – heightens river so flood water is contained.
Deepening or widening river to increase capacity for a flood.

Case Study: The Holderness Coast

Location and Background
Located along the North-East coast in the county of Yorkshire. The coast extends 50km from Flamborough Head to Spurn Head.

Geomorphic Processes
-Flamborough Head is made from more resistant chalk. Features: wave-cut platforms, caves and stacks
-South from Flamborough Head the less resistant boulder clay is dominate. This coasts erodes 1.8m per year and is the fastest in Europe. Cliff slumping can be evident.
-Further south, Spurn Head is a coastal spit created by continual deposition from LSD that extents out to sea.

Management
-Rapid erosion means there are a number of different management schemes from soft to hard engineering.
-High population centres such as Withersea and Horsea are protected by 'hold the line' defence measures such as sea walls, groynes & heavy beach nourishment.
-Underpopulated & economic centres, such as farmland, are under 'managed retreat' schemes.

Case Study: The River Tees

Location and Background
Located in the North of England flows 137km from the Pennines to the North Sea at Red Car.

Geomorphic Processes
Upper – Features include V-Shaped valley, rapids and waterfalls. Highforce Waterfall drops 21m and is made from harder Whinstone and softer limestone rocks. Gradually a gorge has been formed.
Middle – Features include meanders and ox-bow lakes. The meander near Yarm encloses the town.
Lower – Greater lateral erosion creates features such as floodplains & levees. Mudflats at the river's estuary.

Management
-Towns such as Yarm and Middleborough are economically and socially important due to houses and jobs that are located there.
-Dams and reservoirs in the upper course, controls river's flow during high & low rainfall.
- Better flood warning systems, more flood zoning and river dredging reduce impact from flooding.

Year 10 Science Knowledge Organiser-Term 3

AQA GCSE Chemistry (Combined Science) Unit 4: Chemical Changes Knowledge Organiser

The Reactivity Series

Here's a mnemonic to help you learn the order:

purple (potassium)
slime (sodium)
can (calcium)
make (magnesium)
a (aluminium)
careless (carbon)
zebra (zinc)
insane (iron)
try (tin)
learning (lead)
how (hydrogen)
camels (copper)
surprise (silver)
gorillas (gold)

carbon →
hydrogen →

potassium
sodium
calcium
magnesium
aluminium
zinc
iron
tin
lead
copper
silver
gold
platinum

The reactivity series is a league table for metals. The more reactive metals are near the top of the table with the least reactive near the bottom. In chemical reactions, a more reactive metal will displace a less reactive metal.

Reactions of Metals with Water

Metals, when reacted with water, produce a metal hydroxide and hydrogen.

lithium + water → lithium hydroxide + hydrogen

$2Li + 2H_2O \rightarrow 2LiOH + H_2$

The more reactive a metal is, the faster the reaction.

Reactions of Metals with Dilute Acid

Metals, when reacted with acids, produce a salt and hydrogen.

Sodium + hydrochloric acid → sodium chloride + hydrogen

$2Na + 2HCl \rightarrow 2NaCl + H_2$

Metals that are below hydrogen in the reactivity series **do not** react with dilute acids.

Reactions of Acids

The general formula for the reaction between an acid and a metal is:
acid + metal → salt + hydrogen

For example: hydrochloric acid + sodium → sodium chloride + hydrogen

$2HCl + 2Na \rightarrow 2NaCl + H_2$

When an acid reacts with an alkali, a neutralisation reaction takes place and a salt and water are produced.

The general formula for this kind of reaction is as follows:

acid + alkali → salt + water

hydrochloric acid + sodium hydroxide → sodium chloride + water

$HCl + NaOH \rightarrow NaCl + H_2O$

Naming Salts

The first part comes from the metal in the metal carbonate, oxide or hydroxide. The second part of the name comes from the acid that was used to make it.

For example, sodium chloride.

Acid Used	Salt Produced
hydrochloric	chloride
nitric	nitrate
sulfuric	sulfate

Redox Reactions (Higher Tier Only)

When metals react with acids, they undergo a redox reaction. A **redox reaction** occurs when both **oxidation** and **reduction** take place at the **same time.**

For example:

$2H^+ + Ca \rightarrow Ca^{2+} + H_2$

The ionic equation can be further split into two half equations.

$Ca \rightarrow Ca^{2+} + 2e^-$

Oxidation is loss of electrons.

$2H^+ + 2e^- \rightarrow H_2$

Reduction is gaining of electrons.

Reactions with Bases

The general formula for the reaction between an acid and a metal oxide is:
acid + metal oxide → salt + water

sulfuric acid + copper oxide → copper sulfate + water

$H_2SO_4 + CuO \rightarrow CuSO_4 + H_2O$

Reactions with Carbonates

The general formula for the reaction between an acid and a carbonate is:
acid + carbonate → salt + water + carbon dioxide

hydrochloric acid + calcium carbonate → calcium chloride + water + carbon dioxide

pH Scale

In aqueous solutions, acids produce H^+ ions and alkalis produce OH^- ions.

Neutral solutions are pH7 and are neither acids or alkalis.

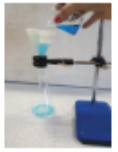
For example, in neutralisation reactions, hydrogen ions from an acid react with hydroxide ions from an alkali to produce water:

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

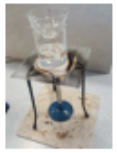
Making Soluble Salts

1. Make a saturated solution by stirring copper oxide into the sulfuric acid until no more will dissolve.

2. Filter the solution to remove the excess copper oxide solid.



3. Half fill a beaker with water and set this over a Bunsen burner to heat the water. Place an evaporating dish on top of the beaker.



4. Add some of the solution to the evaporating basin and heat until crystals begin to form.

5. Once cooled, pour the remaining liquid into a crystallising dish and leave to cool for 24 hours.

6. Remove the crystals with a spatula and pat dry between paper towels.

Year 10 Science Knowledge Organiser-Term 3

AQA GCSE Chemistry (Combined Science) Unit 4: Chemical Changes Knowledge Organiser

Strong and Weak Acids (Higher Tier Only)

A **strong** acid **completely dissociates** in a solution. For example: $HCl \longrightarrow H^+ + Cl^-$

Hydrochloric acid is able to completely dissociate in solution to form hydrogen and chloride ions.

Examples of strong acids include nitric acid (HNO_3) and sulfuric acid (H_2SO_4).

Weak acids in comparison only partially dissociate.

For example acetic acid **partially dissociates** to form a hydrogen and acetate ion.

$CH_3COOH \rightleftharpoons CH_3COO^- + H^+$

The **double arrow** symbol indicates that the reaction is **reversible**. Both the forward and reverse reaction occur at the same time and the reaction never goes to completion.

The Process of Electrolysis

Electrolysis is the **splitting up** of an ionic substance using **electricity.**

On setting up an electrical circuit for electrolysis, two **electrodes** are required to be placed in the electrolyte. The electrodes are **conducting rods.** One of the rods is connected to the **positive** terminal and the other to the **negative** terminal.

The **electrodes** are **inert** (this means they do not react in the reaction) and are often made from **graphite** or platinum.

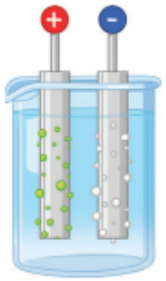
During the process of electrolysis, **opposites attract.** The positively charged ions will be attracted toward the negative electrode. The negatively charged ions will be attracted towards the positive electrode.

When ions reach the electrodes, the charges are lost and they become elements.

The **positive** electrode is called the **anode.**

The **negative** electrode is called the **cathode.**

Electrolysis of Aqueous Solutions



Gases may be given off or metals deposited at the electrodes. This is dependent on the reactivity of the elements involved.

If the metal is **more reactive** than **hydrogen** in the reactivity series, then **hydrogen** will be **produced** at the **negative cathode.** At the **positive anode,** negatively charged ions **lose** electrons. This is called **oxidation** and you say that the ions have been oxidised.

Using Electrolysis to Extract Metals

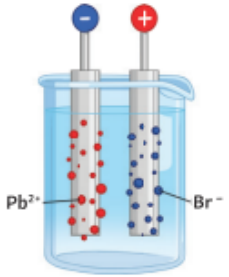
Metals are extracted by electrolysis if the metal in question reacts with carbon or if it is too reactive to be extracted by reduction with carbon. During the extraction process, large quantities of energy are used to melt the compounds.

Aluminium is manufactured by the process of electrolysis. Aluminium oxide has a high melting point and melting it would use large amounts of energy. This would increase the cost of the process, therefore molten **cryolite** is added to aluminium oxide to lower the melting point and thus reduce the cost.

Electrolysis of Molten Ionic Compounds – Lead Bromide

Lead bromide is an **ionic** substance. Ionic substances, when solid, are **not** able to conduct electricity. When molten or in solution, the ions are free to move and are able to carry a charge.

The **positive** lead ions are attracted toward the **negative cathode** at the same time as the **negative bromide** ions are attracted toward the **positive anode.**



Oxidation **i**s the **l**oss of electrons and **r**eduction **i**s the **g**aining of electrons. **OIL RIG** (Higher Tier Only).

We represent what is happening at the electrodes by using **half equations** (Higher Tier Only).

The lead ions are attracted towards the negative electrode. When the **lead ions** (Pb^{2+}) reach the cathode, each ion **gains two electrons** and becomes a neutral atom. We say that the lead ions have been **reduced.**

$Pb^{2+} + 2e^- \longrightarrow Pb$

The bromide ions are attracted towards the positive electrode. When the **bromide ions** (Br^-) reach the anode, each ion **loses one electron** to become a neutral atom. Two bromine atoms are then able to bond together to form the covalent molecule Br_2.

$2Br^- \longrightarrow Br_2 + 2e^-$

Year 10 Science Knowledge Organiser-Term 3

AQA GCSE Chemistry (Combined) Unit 5 Energy Changes Knowledge Organiser

Exothermic and Endothermic Reactions

When a chemical reaction takes place, **energy** is involved. Energy is transferred when chemical **bonds are broken** and when new **bonds are made.**

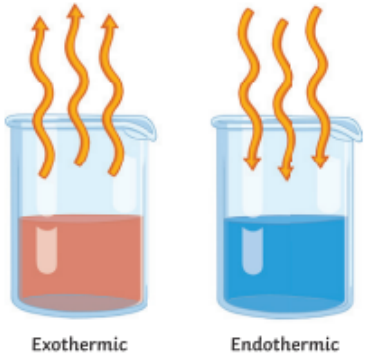
Exothermic reactions are those which involve the transfer of energy **from the reacting chemicals to** the surroundings. During a practical investigation, an exothermic reaction would show an **increase in temperature** as the reaction takes place.

Examples of exothermic reactions include **combustion, respiration and neutralisation** reactions. Hand-warmers and self-heating cans are examples of everyday exothermic reactions.

Endothermic reactions are those which involve the transfer of energy **from the surroundings to** the reacting chemicals. During a practical investigation, an endothermic reaction would show a **decrease in temperature** as the reaction takes place.

Examples of endothermic reactions include the **thermal decomposition** of calcium carbonate.

Eating **sherbet** is an everyday example of an endothermic reaction. When the sherbet dissolves in the saliva in your mouth, it produces a cooling effect. Another example is **instant ice packs** that are used to treat sporting injuries.



Exothermic Endothermic

Activation Energy – the minimum amount of energy required for a chemical reaction to take place.

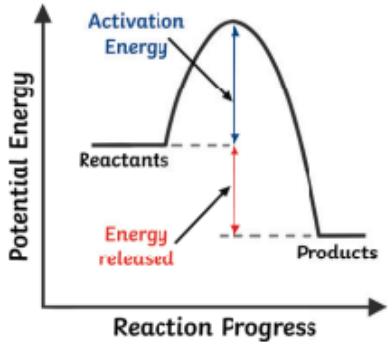
Catalysts – increase the rate of a reaction. Catalysts provide an alternative pathway for a chemical reaction to take place by **lowering** the activation energy.

Reaction Profiles – Exothermic

Energy level diagrams show us what is happening in a particular chemical reaction. The diagram shows us the **difference in energy** between the reactants and the products.

In an exothermic reaction, the **reactants** are at a **higher** energy level than the products.

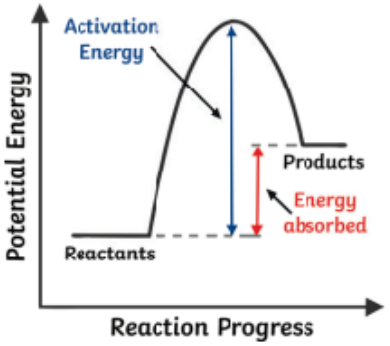
In an **exothermic** reaction, the difference in energy is **released** to the surroundings and so the **temperature** of the surroundings **increases**.



Reaction Profiles – Endothermic

In an **endothermic** reaction, the **reactants** are at a **lower** energy level than the products.

In an **endothermic** reaction, the difference in energy is **absorbed** from the surroundings and so the **temperature** of the surroundings **decreases**.



Bond Making and Bond Breaking

In an **endothermic** reaction, energy is needed to break chemical bonds. The **energy change (ΔH)** in an endothermic reaction is **positive.**

You may also find, in some textbooks, **ΔH** referred to as the **enthalpy change.**

In an **exothermic** reaction, energy is needed to form chemical bonds. The **energy change (ΔH)** in an exothermic reaction is **negative.**

Bond energies are measured in **kJ/mol.**

Year 10 Science Knowledge Organiser-Term 3

Calculations Using Bond Energies (Higher Tier Only)

Bond energies are used to calculate the change in energy of a chemical reaction.

Calculate the change in energy for the reaction: $2H_2O_2 \longrightarrow 2H_2O + O_2$

The first step is to write the symbol equation for the reaction. Once you have done this, work out the bonds that are breaking and the ones that are being made.

H-O-O-H ⟶ H-O-H + O=O

Bond	Bond Energy kJ/mol
H-O	464
O-O	146
O=O	498

On the **left-hand side** of the equation, the **bonds are breaking.**

There are two **O-H** bonds and one **O-O** bond.

So 464 + 146 + 464 = 1074

There are two moles of H_2O_2 therefore the answer needs to be multiplied by two.

So 1074 × 2 = 2148

On the **right-hand** side of the equation, the **bonds are made.**

There are two **H-O** bonds

So 464 + 464 = 928

Two moles of H_2O are made therefore the answer needs to be multiplied by two.

So 928 × 2 = 1856

There is also one **O=O** bond with a bond energy of 498

So 1856 + 498 = 2354

ΔH = sum (bonds broken) – sum (bonds made)

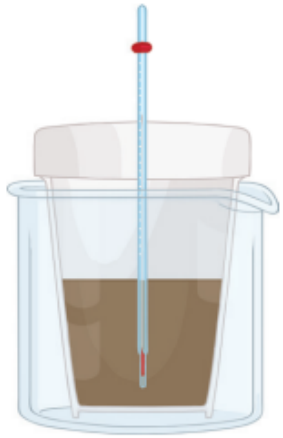
ΔH = 2148 – 2354 = -206 kJ/mol

The reaction is exothermic as ΔH is negative.

Required Practical

Aim

To investigate the variables that affect temperature changes in reacting solutions, e.g. acid plus metals, acid plus carbonates, neutralisations and displacement of metals.



Equipment

- polystyrene cup
- measuring cylinder
- thermometer
- 250cm^3 glass beaker
- measuring cylinder
- top pan balance

Method

1. Gather the equipment.
2. Place the polystyrene cup inside the beaker. This will prevent the cup from falling over.
3. Using a measuring cylinder, measure out 30cm^3 of the acid. Different acids such as hydrochloric or sulfuric acid may be used. Pour this into the polystyrene cup.
4. Record the temperature of the acid using a thermometer.
5. Using a top pan balance, measure out an appropriate amount of the solid (for example, 10g) or use one strip of a metal such as magnesium.
6. Add the solid to the acid and record the temperature. You may choose to record the temperature of the acid and metal every minute for 10 minutes.

Year 10 Science Knowledge Organiser-Term 3

AQA Physics (Separate Science) Unit 3: Particle Model of Matter

Required Practical

Measuring the density of a regularly shaped object:

- Measure the mass using a balance.
- Measure the length, width and height using a ruler.
- Calculate the volume.
- Use the density (p = m/V) equation to calculate density.

Measuring the density of an irregularly-shaped object:

- Measure the mass using a balance.
- Fill a eureka can with water.
- Place the object in the water - the water displaced by the object will transfer into a measuring cylinder.
- Measure the volume of the water. This equals the volume of the object.
- Use the density (p = m/V) equation to calculate density.

Density

Density is a measure of how much mass there is in a given space.

Density (kg/m^3) = mass (kg) ÷ volume (m^3)

A more dense material will have more particles in the same volume when compared to a less dense material.

Example

The density of an object is $8050kg/m^3$ and it has a volume of $3.4m^3$. What is its mass in kg?

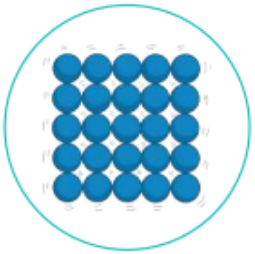
8050 = mass ÷ 3.4

8050 × 3.4 = mass

27 370kg

States of Matter

Solids have strong forces of attraction between the particles. The particles are held together very closely in a fixed, regular arrangement. The particles do not have much energy and can only vibrate.

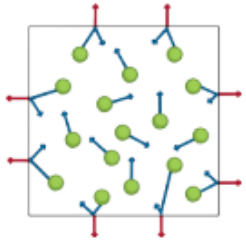


Liquids have weaker forces of attraction between the particles. The particles are close together, but can move past each other. They form irregular arrangements. They have more energy than particles in a solid.

Gases have almost no forces of attraction between the particles. The particles have the most energy and are free to move in random directions.

Motion in Gas Particles

Gas particles move about randomly, at high speed. They intercept other gas particles and anything else that is in the way. When this occurs, a pressure is exerted. If the gas is within a sealed container, pressure occurs when the gas particles hit the walls of the container. They produce a force at right angles to the wall of the container.

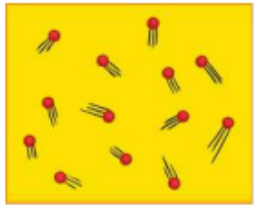


If the temperature of the gas increases, then the pressure will also increase. The hotter the temperature, the more kinetic energy the gas particles have. They move faster, colliding with the sides of the container more often.

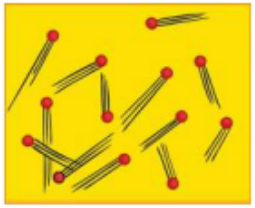
Year 10 Science Knowledge Organiser-Term 3

Internal Energy

Particles within a system have kinetic energy when they vibrate or move around. The particles also have a potential energy store. The total internal energy of a system is the kinetic and potential energy stores.



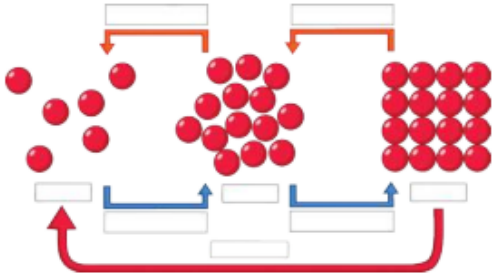
Low Temperature



High Temperature

If the system is heated, the particles will gain more kinetic energy, so increasing the internal energy.

Changing State

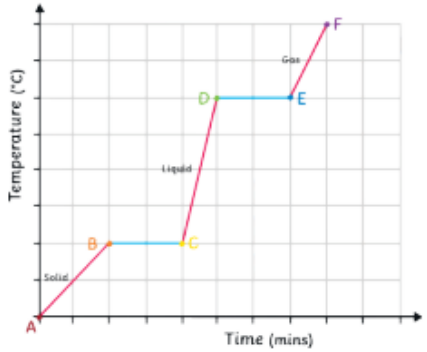


If a system gains more energy, it can lead to a change in temperature or change in state. If the system is heated enough, then there will be enough energy to break bonds.

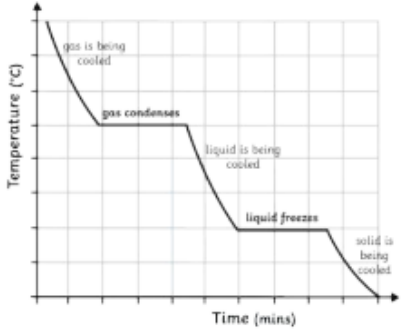
When something changes state, there is no chemical change, only physical. No new substance is formed. The substance will change back to its original form. The number of particles does not change and mass is conserved.

Specific Latent Heat

Energy is being put in during melting and boiling. This increases the amount of internal energy. The energy is being used to break the bonds, so the temperature does not increase. This is shown by the parts of the graph that are flat.



When a substance is condensing or freezing, the energy put in is used to form the bonds. This releases energy. The internal energy decreases, but the temperature does not go down.



The energy needed to change the state of a substance is called the latent heat.

Specific latent heat is the amount of energy needed to change 1kg of a substance from one state to another without changing the temperature. Specific latent heat will be different for different materials.

- solid → liquid - specific latent heat of **fusion**
- liquid → gas - specific latent heat of **vaporisation**

Specific Latent Heat Equation

The amount of energy needed/released when a substance of mass changes state.

energy (E) = mass (m) × specific latent heat (L)

E = mL

Mi ciudad

Places in town | Town descriptions | Activities | Shops

My city

En mi ciudad/pueblo hay… - In my city/town there is…

Mi ciudad/pueblo tiene… - My city/town has…

un ayuntamiento – a town hall
un bar/muchos bares – a bar/lots of bars
un castillo (en ruinas) – a (ruined) castle
un cine – a cinema
un mercado – a market
una piscina – a swimming pool
un supermercado – a supermarket
una playa – a beach
un museo – a museum
una plaza mayor – a town square
un parque – a park
una plaza de toros – a bull ring
un polideportivo – a sports centre
una pista de hielo – an ice rink
un puerto – a port/harbour
una oficina de correos – a post office
un restaurante – a restaurant
una bolera – a bowling alley
un teatro – a theatre
una iglesia – a church
una biblioteca – a library
una comisería – a police station
una estación de trenes/autobuses – a train/bus station
un gran almacén – a department store
un centro comercial – a shopping centre
muchos lugares de interés – lots of sights

Es una ciudad/un pueblo_____- It's a ____ city/town

histórico/a – historic
tranquilo/a – calm/quiet
animado/a – lively
turístico – touristy
famoso/a – famous
moderno/a – modern
ruidoso/a – noisy
aburrido/a – boring
industrial – industrial
conocido/a por… - known for…

Está situado – it's situated…

al lado del río – next to the river
está rodeado de… - it's surrounded by

Tiene unos impresionantes paisajes naturales – it has some amazing natural landscapes
Tiene varios influencias culturales – it has various cultural influences
Tiene el bullicio de la ciudad – it has the hustle and bustle of the city
Es mi ciudad natal – it's my home town
Hay mucho que hacer/hay mucha marcha – there's lots to do
No hay nada que hacer – there's nothing to do
Hay una zona peatonal – there's a pedestrian zone

Activities

Se puede… - you can

estar mucho tiempo al aire libre – spend a lot of time in the open air
subir la torre – go up the tower
hacer un recorrido en autobús – do a bus tour
disfrutar de las vistas – enjoy the views
apreciar la arquitectura variada – appreciate the variety of the architecture
aprovechar del buen tiempo – make the most of the good weather
probar platos típicos – try local dishes
practicar deportes acuáticos – do water sports
practicar senderismo – go hiking/trekking
ir de compras – go shopping

Shops

Un estanco – a tobacconist's
Un banco – a bank
Una cafeteria – a café
Una carnicería – a butcher's
Una farmacia – a pharmacy/chemist's
Una frutería – a greengrocer's
Una joyería – a jeweller's
Una librería – a bookshop
Una panadería – a bakery
Una papelería – a stationery shop
Una pastelería – a cake shop
Una peluquería – a hairdresser's
Una pescadería – a fishmonger's
Una tienda de ropa – a clothes shop
Una zapatería – a shoe shop
Una juguetería – a toy shop
Una tienda de comestibles – a grocery store/supermarket

Vivo en **Liverpool**, una ciudad **grande**	I live in **Liverpool**, a big **city**
que **está situado** en el **noroeste de Inglaterra**,	which **is situated** in the **Northwest of England**
al lado del río **Mersey**.	next to the river **Mersey**.
Vivo en **las afueras** y	I live in **the outskirts** and
me chifla mi barrio porque hay mucho para los habitantes.	**I love** my neighbourhood because there is lots for the residents.
Por ejemplo, se puede **visitar los museos**, **hacer un recorrido en autobús** o **ir de compras**	For example, you can **visit the museums**, **go on a bus tour** or **go shopping**
ya que hay un centro commercial enorme.	**because** there is an enormous shopping centre.
También hay un lago donde se puede hacer esquí acuático.	Also, there is a lake where you can go water skiing.
Desafortunadamente no hay **piscina**.	**Unfortunately** there is no **swimming pool**.
¡Qué pena! Me flipa hacer natación.	**What a shame!** I'm crazy about swimming.
En mi opinión Liverpool es muy **turística dado que**	In my opinion Liverpool is very **touristy because**
hay muchos **museos**, dos **catedrales**	there are lots of **museums**, two **cathedrals**
y **es conocido por los Beatles**	and **it's known for the Beatles**
y **el fútbol**. ¡Hay dos **estadios de fútbol**!	and **football**. There are **two football stadiums**!
Tiene **el bullicio de la ciudad** y	It has **the hustle and bustle of a city** and
varios influencias culturales.	various cultural influences.
Es mi ciudad natal	It's my home town
y me encanta.	and I love it.

A model text on my city

Mi ciudad

Advantages and disadvantages

Changes

In the past

Advantages and disadvantages

Lo mejor de vivir en la ciudad es que… - the best thing about living in the city is that…	**es tan fácil desplazarse** – it's so easy to get around **hay una red de transporte público** – there's a public transport network **hay tantas diversiones** – there's so much to do **hay muchas posibilidades de trabajo** – there are lots of job opportunities **la vida es más interesante** – life is more interesting
Lo peor que que… - the worst thing is that…	**el centro es tan ruidoso** – the centre is so noisy **hay tanto tráfico** – there's so much traffic **se lleva una vida tan frenética** – life is so hectic **la gente no se conoce** – people don't know each other **hay demasiado contaminación** – there's too much pollution
En el campo… - in the countryside	**el transporte público no es fiable** – the public transport isn't reliable **hay bastante desempleo** – there's quite a lot of unemployment **yo conozco a todos mis vecinos** – I know all of my neighbours **se puede aprovechar del aire libre** – you can enjoy the fresh air **la vida es más tranquila** – life is calmer **la vida es más aburrida** – life is more boring

Changes

Si fuera posible – if it were possible	**introduciría transporte público gratis** – I would introduce free public transport **renovaría los edificios viejos** – I would renovate the old buildings **mejoraría el sistema de transporte público** – I would improve the public transport system **crearía más trabajos** – I would create more jobs **crearía más espacios verdes** – I would create more green spaces **invertiría en la educación** – I would invest in education **plantaría más árboles** – I would plant more trees **constuiría más tiendas en el centro** – I would build more shops in the centre **reduciría la contaminación** – I would reduce pollution **prohibiría los coches** – I would ban cars

My city in the past

En el pasado – in the past **Hace (10) años** – 10 years ago **En los años sesenta** – in the 60s **Mis padres/mis abuelos dicen que** – my parents/grandparents say that…	**la ciudad era** – the city was **había** – there was **tenía** – it had	**más/menos que hacer** – more/less to do **mucho despempleo** – there was a lot of unemployment **más/menos pobreza** – more/less poverty **más/menos industrial** – more/less industrial **un puerto importante** – an important port
	los Beatles se volvían famosos – the Beatles became famous **Liverpool era la capital de cultura durante el año dos mil ocho (2008)** – Liverpool was the Capital of Culture in 2008 **la ciudad ha cambiado a lo largo de los siglos** – the city has changed throughout the centuries	

Lo mejor de vivir en la ciudad es que	**The best thing** about living in the city is that
es **tan fácil desplazarse** ya que	it's **so easy to get around**
hay **una red de transporte público muy fiable**.	because there is **a really reliable public transport network**.
Además, **merece la pena madrugar** porque	Moreover, **it's worth getting up early** because
hay mucho que hacer.	There's a lot to do.
Hay **cines**, **tiendas** y **boleras** y	There are **cinemas**, **shops** and **bowling alleys** and
mucha gente dice que la vida es más interesante.	**lots of people say that life is more interesting**.
En mi opinión, se lleva una vida tan frenética en la ciudad	In my opinion life is so hectic in the city
y por eso, **preferiría vivir** en el campo.	therefore **I would prefer to live** in the countryside.
Me parece que hay **bastante desempleo**	**It seems that** there is **a lot of unemployment**
sin embargo la vida es **más tranquila** y	however life **is calmer** and
se puede aprovechar del aire libre.	you can enjoy the fresh air.
Si fuera posible cambiaría muchas cosas de mi ciudad.	**If it were possible** I would change a lot of things in my city.
Por ejemplo **reduciría la contaminación** y	For example I would **reduce pollution** and
plantaría más árboles ya que	**plant more trees** because
en el pasado era muy **industrial**.	in the past it was very **industrial**.

A model text on advantages and disadvantages of the city

El medio ambiente

 Problems  Natural disasters  Solutions  Commands

Environmental problems

Me preocupa(n) mucho – I'm really worried about

Lo que más me preocupa es (que) – the thing I'm most worried about is (that)

El problema más grave es (que) – the most serious problem is (that)

la deforestación – deforestation
la lluvia ácida – acid rain
las mareas negras – oil spills
la sobrepoblación – overpopulation
el calentamiento global – global warming
la contaminación – pollution
la sequía – drought
los problemas del medio ambiente – environmental problems
las especies amenazadas/en peligro de extinción – threatened/endangered species
la polución de los mares y los ríos – sea and river pollution
la destrucción de los bosques – destruction of woods/forests
los combustibles fósiles se acaban – fossil fuels are running out
hay demasiada basura en las calles – there's too much litter/rubbish in the streets
hay demasiado tráfico – there's too much traffic
el tráfico causa mucho ruido – the noise causes a lot of noise
mucha gente usa el coche todos los días – lots of people use their cars everyday
hay demasiadas fábricas – there are too many factories
no hay espacios verdes – there are no green spaces
la gente no recicla – people don't recycle

causa – it causes
amenezar – to threaten
echar la culpa - to blame
es nocivo – it's harmful
agotar – to use up
una multa – a fine
el vertadero – the tip
provocar – to provoke/cause
contribuir – to contribute
un atasco – a traffic jam
el combustible - fuel
una fábrica – a factory

un terremoto – an earthquake
una tormenta de nieve – a snow storm
un incendio forestal – a forest fire
un huracán – a hurricane
un temblor – a tremor
un tornado – a tornado
las inundaciones - floods

Solutions

Para proteger el medio ambiente/ el planeta – to protect the environment / the planet

(no) se debe – you must(n't)

(no) se debería – you should(n't)

apagar la luz – turn off the light
ducharse en vez de bañarse – shower instead of having a bath
separar la basura – separate the rubbish
reciclar el plástico y el vidrio – recycle plastic and glass
desenchufar los aparatos eléctricos – unplug electrical appliances
ahorrar energía – save energy
cerrar el grifo – turn off the tap
hacer todo lo posible – do everything possible
malgastar agua – waste water
usar bolsas de plástico – use plastic bags

Es esencial que – it's essential that
Es importante que – it's important that

cuidemos el planeta – we look after the planet
hagamos proyectos de conservación – we do conservation projects
compremos/usamos productos verdes - we buy use eco-friendly products
productos de comercio justo – we fair trade products
ahorremos agua – we save water
cambiemos la ley – we change the law
consumamos menos – we consume less

No corte tantos árboles – Don't cut down so many trees
No tire basura al suelo – don't throw rubbish on the floor
No malgaste energía – Don't waste energy
Plante más bosques y selvas – plant more forests and trees
Use energías renovables – use renewable energy
No construya tantas casas grandes – don't build so many big houses
No vaya en coche si es possible ir a pie – Don't go by car if it's possible to walk
No eche tantos desechos químicos – Don't release so much chemical waste
Reduzca las emisiones de los vehículos – reduce vehicle emissions

En mi opinión hay tantos problemas medioambientales	In my opinion there are so many environmental problems
como la sobrepoblación y la **deforestación**	**like overpopulation** and **deforestation**
pero **pienso que** el problema más grave es	but **I think that** the most serious problem is
la contaminación del aire ya que	**air pollution** because
es **nociva** y causa **el calentamiento global**.	it's **harmful** and causes **global warming**.
Las fábricas y **los atascos contribuyen a la contaminación del aire**	**Factories** and **traffic jams contribute to air pollution**
y por eso **es esencial que usemos el transporte público**	and therefore **it's essential that we use public transport**
y que **compremos productos verdes.**	and that **we buy eco-friendly products**.
En el pasado **me preocupaba más la deforestación**	In the past **I was most worried about deforestation**
y **la destrucción de los bosques**	and **the destruction of forests**
dado que causa **las especies amenazadas** y	**because** it causes **endangered animals** and
organicé un evento para recaudar dinero.	I organised an event to raise money.
Para proteger el planeta	To protect the planet
no corte tantos árboles y **plante más bosques y selvas**.	**don't cut down so many trees** and **plant more woods and forests**,
Yo, voy a intentar **usar menos energía.**	I'm going to try to **use less energy**.
Apagaré la luz y **desenchufaré los aparatos eléctricos**.	I will **turn off the light** and I will **unplug electrical items**.
Voy a hacer todo lo possible.	I'm going to do everything possible.

Problemas sociales

Problems | Solutions | Vices

Social issues

Me preocupa(n) mucho – I'm really worried about

Lo que más me preocupa es (que) – the thing I'm most worried about is (that)

El problema más grave es (que) – the most serious problem is (that)

el paro/el desempleo – unemployment
el hambre/la pobreza – hunger/poverty
la obesidad – obesity
la drogadicción – drug addiction
la diferencia entre ricos y pobres – the rich/poor divide
la crisis económica – the economic crisis
los sin hogar/los sin techo – the homeless
el estrés – stress
la soledad – loneliness
el prejuicio – prejudice
el racism – racism
la igualdad – equality
el crimen - crime

To help

Es necesario que – it's necessary that

recaudamos dinero/fondos – we raise money/funds
hagamos campañas publicitarias – we carry out publicity campaigns
construyamos más casas – we build more houses
creemos oportunidades de trabajo – we create job opportunities
compremos productos de comercio justo – we buy fair trade products
apoyemos proyectos de ayuda – we support help projects

Random

organización benéfica – a charity
el sida – aids
una residencia de ancianos – old people's home
una tienda solidaria/con fines benéficos – charity shop
el trabajo voluntario – voluntary work
una campana – a campaign
el desarollo – development
borracho - drunk
el humo – the smoke
el olor – the smell
muerto - dead
un fumador – a smoker
un ladrón – a thief

Vices

Beber alcohol – drinking
Fumar cigarillos – smoking cigarettes
Fumar porros – smoking joints
Tomar drogas duras/blandas – taking hard/soft drugs
El fumo pasivo – passive smoking
Emborracharse – getting drunk
El tabaquismo – tobacco addiciton

es - is

ilegal – illegal
peligroso – dangerous
un malgasto de dinero – a waste of money
una tontería – stupid
un problema serio – a serious problem
un vicio muy caro – a very expensive habit
tan malo como… – as bad as…
muy perjudicial para la salud – very damaging to your health

provoca mal aliento – causes bad breath
daña los pulmones – damages your lungs
mancha los dientes de amarillo – makes your teeth yellow
causa el fracaso escolar – causes failure at school
causa la depresión – causes depression
produce una fuerte dependencia física – causes a stong, physical dependence
tiene muchos riesgos – has many risks
afecta a tu capacidad para tomar decisiones – affects your ability to make decisions
te relaja – relaxes you
te quita el estrés – relieves stress
te quita el sueño/el control – robs you of sleep/control
te hace sentir bueno – makes you feel good
te hace sentir más adulto – it makes you feel more grown-up

No es justo que haya tanto desigualdad social en el mundo.	**It's not fair that there's so much social inequality** in the world.
Me preocupa más la pobreza y por eso	**I'm most worried about poverty** and therefore
Recaudo dinero para una obra benéfica que ayuda a los **sin techo**	I raise money for a charity which helps the **homeless**
y **he organizado** un evento para recaudar fondos	and **I have organised** an event to raise funds.
En mi opinión, **es necesario que construyamos más casas**	In my opinion, **it's necessary that we build more houses**
y **creemos oportunidades de trabajo**.	And **create job opportunities**.
Además, **es terrible que** haya **tanta gente obesa** y tantos **drogadictos** en mi ciudad.	In addition, **it's terrible that** there are **so many obese people** and so many **drug addicts** in my town.
Nunca **bebo alcohol** porque es **un malgasto de dinero**	I never **drink alcohol** because **it's a waste of money**
pero mis amigos **lo beben cada fin de semana**.	but my friends **drink it every weekend**.
Dicen que te quita el estrés	**They say that it relieves stress**
y **te hace sentir más adulto**.	and **makes you feel like an adult**.
No estoy de acuerdo.	I disagree.
Lo peor es que fumo cigarillos y	**The worst thing is that I smoke cigarettes** and
es muy perjudical para la salud.	it's very damaging to your health.
Daña los pulmones	**It harms your lungs**
y **produce una fuerte dependencia física**	and **causes a strong, physical dependence**
pero no puede parar.	but I can't stop

A model text on social issues

Year 10 BTEC Drama Summer Term 1 & 2 Knowledge Organiser

Preparing for Component 2: Developing Skills and Techniques in Performing Arts

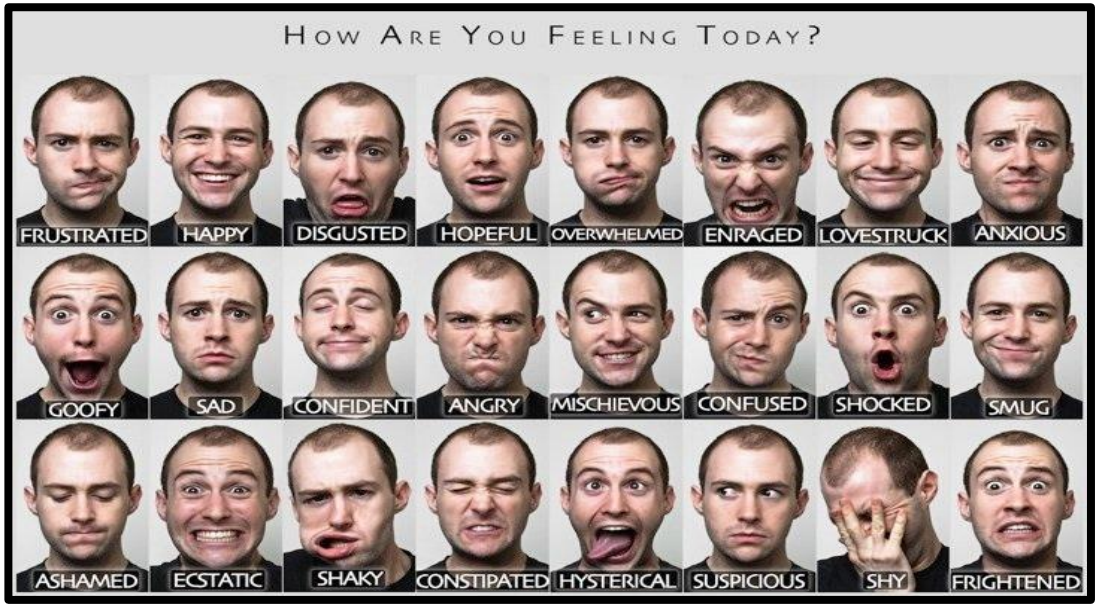
Key Knowledge

LEARNING AIM A

- *Develop skills and techniques for performance*

LEARNING AIM B

- Apply skills and techniques in rehearsal and performance



Evidence: written or video Recordings of workshops, peer observations, teacher feedback.

Key Language

Workshops; facial, vocal and physical

Vocallly and physically

Projection

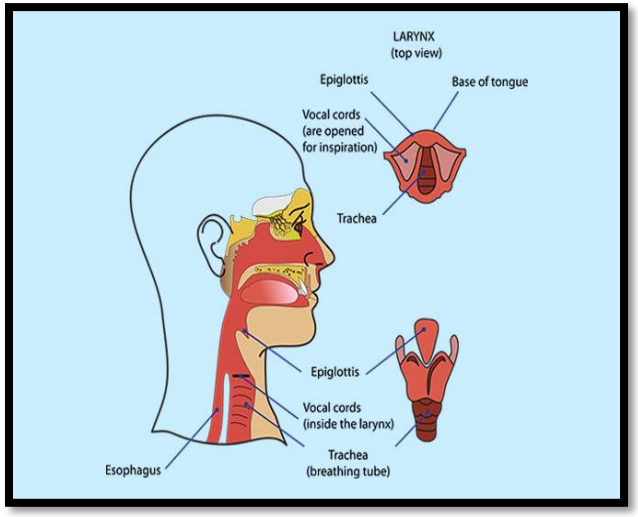
Interpretative

Articulation

Interaction with the group

Interaction in performance

Refining ideas o communicating design ideas e.g. pitch, presentation.



Year 10 BTEC Drama Summer Term 1 & 2 Knowledge Organiser

Preparing for Component 2: Developing Skills and Techniques in Performing Arts

Learning Aim A - Physical and Vocal skills developed

Physical skills relevant to the performance discipline such as: actions, alignment, accuracy, balance, coordination, contraction, characterisation, communication, dynamic range, energy, expression, extension, facial expression, flexibility, focus and control, gesture, mannerism, movement memory, pace, posture, phrasing, projection, rhythm, relaxation, reaction/interaction with others, stamina, spatial awareness, suspension, swing, trust, use of breath, use of weight.

Vocal and musical skills relevant to the performance discipline such as: clarity and articulation, projection, breath control, remembering lines, pitch, inflection and modulation, tone and vocal colour, phrasing, pace, use of pause, tuning, rhythm, timing, following an accompaniment, communicating the meaning of a song, learning songs, projection and placing of the voice, interpreting lyrics, phrasing, musicality, characterisation, expression. o other performance and interpretative skills relevant to the performance discipline such as: awareness of the performance space and audience, interaction with and response to other performers, focus, energy and commitment, handling and use of props, set, costume, makeup and masks, emphasis, projection, use of space, awareness and appreciation of sound accompaniment, for example following the accompaniment, musicality, facial expression, tuning, rhythm and timing, stage presence, energy.

Year 10 BTEC Drama Summer Term 1 & 2 Knowledge Organiser

Preparing for Component 2: Developing Skills and Techniques in Performing Arts

Learning Aim B - Physical and Vocal skills developed through rehearsal

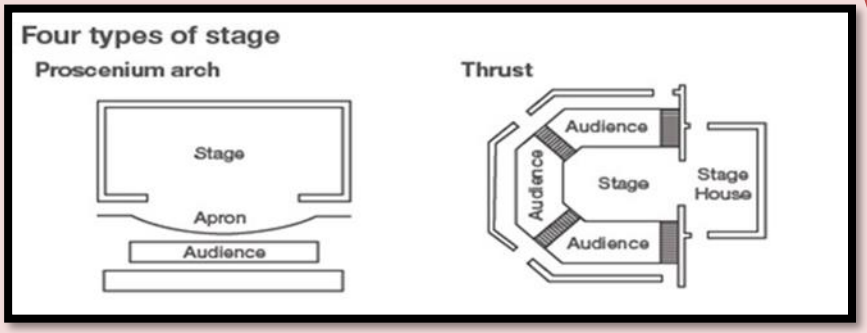
For performers: repetition and recall, learning dialogue, songs or movement, learning blocking and stage directions, learning choreography.

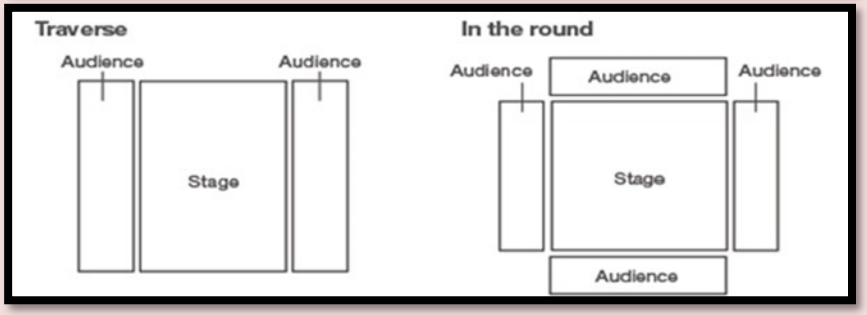
- Experimenting with skills and techniques appropriate to the role selected.
- Reproducing repertoire, such as:
- Interpreting and developing a character.
- Communicating a style or genre.
- Combining separate elements of a piece (score, choreography and libretto).
- Developing the relationship between musical, lyrical and spoken elements.
- Communicating themes and ideas.
- Interpreting and realising design elements from existing performance material.
- Responding to direction, such as: applying health and safety procedures.
- Being prepared, warming up and cooling down o positive response to teacher instruction and feedback
- Peer feedback
- Absorbing and applying feedback and corrections.
- Reviewing and recording development of skills, techniques and progress in logbook.
- Behaviours and attitudes when working with others such as cooperation, being supportive, listening to others, punctuality, consistency, commitment, reliability, being prepared, being respectful of others' opinions and skills.

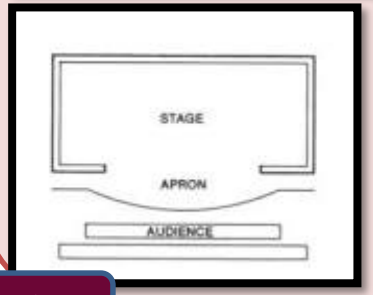
Year 10 BTEC Drama Summer Term 1 & 2 Knowledge Organiser

Preparing for Component 2: Developing Skills and Techniques in Performing Arts

Staging Positions







Where the audience sit effects their involvement and perspective of either naturalistic or stylised performances.

Advice

Always read the stage directions for the scene you are writing about. Most of the information and even ideas on character or staging will be in the stage directions.

Key Vocabulary

Target audience – who you will perform to and why

Performance space – choosing where the performance will take place if not on the stage and why

Running time – length of the performance

Style of work – genre or practitioner who will influence your work

Vocal skills – ability to adapt voice to suit a character Physical skills – movement, gestures, body language, facial expressions

Interpretative skills – presenting yourself to the audience and creating emotion

Commitment –how much effort you put in individually and as a group

Rehearsal – practicing the performance

Blocking – deciding where an actor should stand

Performance – Showing of the piece of work to the target audience

Evaluate – identify strengths and areas for improvement of both the rehearsal and performance

Characterisation - creating a character through your movement and dynamic choices

Year 10 Hospitality and Catering Summer Term Knowledge Organiser

LO2 Understand how Hospitality and Catering provisions operate

AC2.1 Describe the operation of the kitchen

- layout;
- work flow;
- operational activities;
- equipment and materials;
- stock control;
- documentation and administration;
- staff allocations;
- dress code;

Kitchen workflow

Workflow in the kitchen should follow a logical process by using different areas so that the clean stages in food production never come into contact with the "dirty" stages

1. Delivery
2. Storage
3. Food preparation
4. Cooking
5. Holding
6. Food service area
7. Wash up
8. Waste disposal

Workflow

Organising the kitchen into separate areas for separate jobs is the heart of hygienic kitchen design. The e layout will depend upon the size of the kitchen as well as on the type of meals it prepares.

Delivery

Ensure vehicles have access to the premises
Space for a goods check in area before entering the kitchen

Storage

Store close to the delivery area so delivery personnel do not enter the food preparation areas
Bulk suppliers may have minimum orders which need a lot of storage

Food preparation

- Food preparation area should be between storage and cooking areas
- Separate different processes eg raw meat separate from pre prepared foods.
- Separate high risk food area
- Need sinks, pot wash facilities and hand washing
- If separation by area is not possible, then do all preparation before cleaning down for cooking

Cooking

- Consider requirements of menu and ability of staff
- Flow must suit style of service eg fryers and grills near to point of service for fast cooking and bulk cooking further away
- Need worksurface beside cooking equipment so there is somewhere to put foods down
- Gas and electric supply near to cooking equipment

Holding

- Needs to be near food service area
- Hot holding needs food to be over 63C
- Cold holding in chillers eg desserts

Food service

- Should be located close to the cooking process so handling is minimised
- Area for plating up if A la Carte restaurant
- Replenish food during service for buffets and counters

Washing up

- Space for sinks and dishwashers
- Area for dirty items before washing and for clean items after washing needs to be segregated to prevent cross contamination
- Ventilation to remove steam

Waste

- Try to keep separate from food preparation area
- Storage that gives pest prevention

Hygienic kitchen design

Ventilation
Effective ventilation system to remove the heat, steam and condensation from the kitchen. Bacterial growth in moist conditions

Sinks
For washing food and utensils. Hot and cold water, stainless sinks are the best

Waste disposal
Waste disposal unit or separate waste bin with a lid that can be foot opened

Hygienic kitchen design

Work surfaces
Must be strong, hard wearing and easily cleaned. Stainless steel with wheels that can be moved out of the way while cleaning

Floor
Hard wearing, easy to clean , non absorbent and non slip
Coving with the walls prevents dirt and food particles from accumulating

Walls
Smooth, can be tiled or lined with stainless steel as splashback light colour to show dirt easily

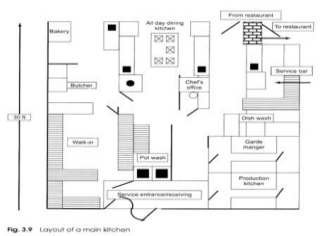
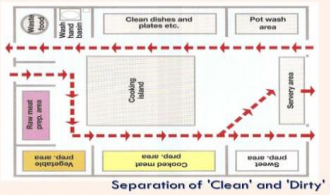


Fig. 3.9 Layout of a main kitchen

layout of a hygienic kitchen



Separation of 'Clean' and 'Dirty' areas

Stock control

Perishable food and products that do not stay fresh for very long

- Fresh fruit, vegetables
- Dairy products
- Meat and fish
- Only buy enough to last a few days because they will not last
- FIRST IN FIRST OUT- stock rotation

Stock control

Staple foods and supplies that are canned, bottled, dried or frozen
These have a longer shelf life and so do not need to be purchased as frequently. Larger amounts can be bought to get cheaper prices and can be stored .

- Condiments,
- Canned vegetables
- Frozen foods including meat, fish and deserts
- Sauces
- Flour, sugar, fat,oil
- FIRST IN FIRST OUT stock rotation

Documentation and Administration

Complete kitchen documents:

- They must be legible (readable)
- At correct interval (daily, hourly)
- Completed accurately
- They must be signed and date.

Where do you get kitchen documentation from?:

- Purchased from stationers
- Designed in-house
- Central purchasing

Documentation and Administration

Types of Kitchen Documents

- Temperature charts – fridge, freezer, display, point of sale. Taken at least twice per day.
- Time sheets – logging staff working hours
- Accident report forms – used to report any accidents and near misses
- Food safety information – blast chill records, food related incidents and cleaning rotas
- Equipment fault reports – What was the issue and how was it dealt with.
- Stock usage reports– order books, stock control sheets, requisition books, invoice, delivery notes

Documentation and Administration

Establishments have a legal responsibility to work safely and hygienically. Records kept to prove this and in case of due diligence proof

1. Temperature charts
2. Time sheets
3. Accident report forms
4. Food safety information
5. Equipment fault reports
6. Stock usage reports.

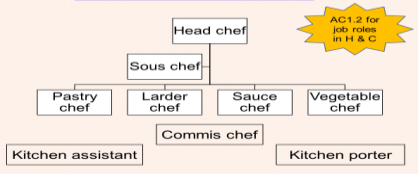
Importance of documentation

Why must they be completed?

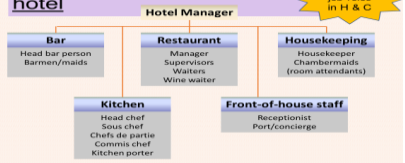
1. Maintaining organisational procedures
2. Safety of staff and customers
3. Legal requirements
4. Complying with food safety legislation
5. Complying with accounting and taxation practices
6. Ensuring accurate payment of bills
7. Ensuring profitability of kitchen

Remember
Some information is confidential or sensitive ie staff personal information
There is a legal requirement under the data protection act to store this type of information securely

The kitchen brigade



Traditional staff structure in a hotel



Kitchen dress code

Where an item of clothing is for personal protection while doing the job then the employer must provide it free of charge

A chef's uniform is more than a fashion statement. Each component plays a specific role in protecting from potential dangers common in most kitchens

Chef's uniform

- Chef's jacket
- Chef's pants
- Hat
- Neckerchief
- Apron
- Hand towel
- Slip-resistant shoes

AC2.1 small and large equipment

Knives

1.Store knives safely so you don't cut yourself accidentally

2.Clean knives after each use. gently scrub the knife, then wash it off with hot water. Dry with a clean cloth
.
3.Use knives for the purpose that they were intended. not a replacement for a screwdriver!

5.cut with a slicing action ie forwards and backwards,

PANS: Use the right size pans. If any food sticks to the pan, soak in water

TEFLON lined pans: Avoid scrubbers which scratch, steel spoons and slicers as they cause the items to loose their non-stick quality always use a wooden spoon.

BOWLS / DISHES Use the right bowl for the dish. Wash and wipe dry after every use.

WHISKS special attention should be paid to where the wires meet at the base.Do not bang

SIEVES / STRAINERS / COLANDERS: Wash immediately after every use

WOODEN : Scrub with a brush & hot water. Dry thoroughly. If items are left wet, cracks can appear. Do not use broken wooden spoons as it can leave shavings in the food.

PLASTIC: Jugs, etc should not be kept near direct heat as it can discolour or melt

Year 10 Hospitality and Catering Summer Term Knowledge Organiser

LO2 Understand how Hospitality and Catering provisions operate

AC2.1 small and large equipment

Handling small equipment:

1) Do not apply too much pressure while handling these equipment as they can break easily.

2) Always wash and wipe well after each use personally. Do not put these in the wash up area as it can be misplaced or broken.

3) Keep in the correct and safe place of the kitchen for the others to use.

Large Equipment

Depending on the type of establishment the equipment may be similar size and type to domestic equipment or larger scale for mass catering
All pieces of equipment are used more than domestic kitchen ware so need to have the following qualities

- Hard wearing
- Easy to store
- Easy to clean
- Economical to use
- Suitable size for establishment

Large Equipment

	Domestic	Catering
Finish	Decorative	Plain
Materials	Plastic	Metal
Size	Small	Large
storage	Stored in cupboards	Kept out to use

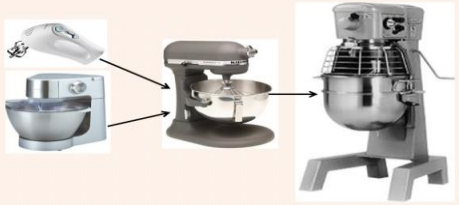
Baking

Toasting

GENERAL SAFETY PRECAUTIONS

1) Equipment must be turned off before cleaning.
2) Use correct cleaning materials.
3) Any specific instructions should be observed.
4) After cleaning, washing & drying the equipment & parts thoroughly reassemble and check that it is ready for use.
5) Any attachments should be stored correctly.
6) Ensure there is no particle of food left in the equipment, or else it can contaminate other foods when the machine is next used.
7) In the event of equipment not working satisfactorily, do not ignore it; report the fault

Mixing



OVENS/HOBS

- Avoid spills and water,it can lead to a short circuit. To clean switch off electric supply.
- Do not use more water than necessary.
- Clean thoroughly and remove parts that can be cleaned separately & fit them correctly.
- Dry thoroughly when cleaned.

Frying

Grilling

GRILLS/ SALAMANDERS

Ensure the tray beneath the bars are clean.
- Switch off electrical supply and clean the bars thoroughly, as well as the top.
- Do not clean when hot.

MIXERS

Ensure the parts underneath the arm are cleaned
- Switch off electrical supply and clean the blade/whisk thoroughly, as well as the top.
- Do not clean when moving

FRYERS

- Check the level of oil is above the heater coils.
- Avoid spilling any water in the oil.
- Do not overheat the oil.
- When cool, drain off the oil into a container
- Lift up coils and take ou containers & wash thoroughly.
- Rinse & dry well. add clean oil.

Making coffee

HOT PLATES

- Avoid spilling water on surface
- switch off parts, which are not being used.
- Cool hot plates before cleaning the sides with a wet cloth and detergent.
- Dry with a cloth

AC2.2 Describe the operation of front of house

- layout;
- work flow;
- operational activities;
- equipment and materials;
- stock control;
- documentation and administration;
- staff allocations;
- dress code;
- safety and security

Food service

See AC1.2 for more details

Table service	Counter service	Personal service

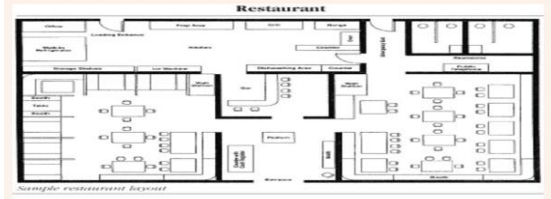
Click on image for 10 min video clip

https://www.youtube.com/watch?v=ifdpUyNIIo4

Food service

Food can be served in many ways. The type of service depends on the following factors:

- The type of establishment or where it is
- The type of food or menu being served
- The cost of the meal or food
- The time available for the meal
- The type of customer
- The number of customers expected
- The availability of skilled serving staff



Restaurant manager

- The restaurant manager is in overall charge of the restaurant,
- Takes bookings, relays information to the head chef, completes staff rotas, ensures the smooth running of the restaurant

Maître d'Hôte

Head waiter (ess)

- Second in charge of the restaurant,.
- Greets and seats customers, relays information to the staff,
- Deals with complaints and issues referred by the waiting staff.

Wine waiter

Le sommelier

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

Counter service

Method	Description	Comments
Cafeteria (free flow)	• A single long display counter but can sometimes be multiple counters	• Queuing is often required • It can be fast so can produce a high turnover • A simple, basic experience for customers • There can be impulse buying from displays • Low skill of serving staff
Buffet	• Set up in a room usually along one long table. It can be self service or staff can serve customers. • Carvery service is where joints of meat are carved in front of customers and plated	• Creates a more informal function than plated or silver service meals • It can be fast and simple • Poor portion control • Needs efficient clearing away of crockery
Fast Food	• Takeaway with eat-in areas where customers collect food from one small counter	• A quick and simple method of service • Can be a very high turnover of food • Often a limited choice of menu • Use of disposable packaging and utensils because of the type of food and service

Year 10 Hospitality and Catering Summer Term Knowledge Organiser

LO2 Understand how Hospitality and Catering provisions operate

Table service

Method	Description	Comments
Plate	• Pre-plated meals from the kitchen • Can be a basic plated meal or a decorated nouveau cuisine style	• From café's to luxury restaurants • Good portion control methods • Consistent presemtatiom of food • Relies more on skilled kitchen staff than the skill of serving staff • Time consuming for the kitchen
Family	• Dishes are put on the table where spoons are provided and the customers swerve themselves. • Suited to ethnic restaurants such as Indian, Chinese and Spanish tapas	• Sociable • Less portion control • Easy and quick to serve • Suits families with young children • Needs big tables to fit all of the dishes on
Silver	• Food is served by the staff using spoon and fork	• A more personal customer experience • Can be slow service • Portion control may fluctuate • Staff costs are high as it needs more serving staff
Gueridon	• Food is served from a side table or a trolley using a spoon and fork • Sometimes dishes are assembled or cooked in front of the customer	• Very specialist, skilled service • Individual attention • Very high staff and menu costs • Time consuming

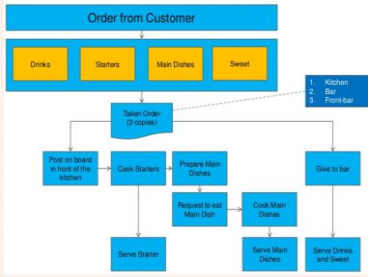
Personal service

Method	Description	Comments
Tray or Trolley	• An assembled meal provided or a choice of food and drink from a trolley	• Available where needed • Trays are used in airlines, hospitals and hotel rooms (room service) • Trolleys are used in offices, airlines and trains
Vending	• Sold from a machine	• 24 hour service if required • Drinks, snacks and meals can be offered including hot meals
Home Delivery	• Delivered to house individually or on a round	• Usually Ethnic such as Indian and Chinese. Also 'Meals on Wheels'

Waiting staff

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

Workflow between Front of House and Kitchen



Equipment and Materials

Use and care of hand equipment:

- Choose cutlery carefully – plain cutlery is easier to clean than patterned cutlery and stainless steel cutlery resists scratches.
- Cutlery should be stores carefully to avoid scratches and marks.
- Glassware should be washed, stored and handled carefully to avoid breakages.
- Cutlery should be dishwasher proof.
- Cutlery should be stacked carefully and covered if possible to prevent dust and germ settling.
- Store linen, same sizes together in a cupboard away from dust

Equipment and Materials

Hand Equipment

This includes the crockery, cutlery, table linen and glassware used to lay tables, as well as serving equipment and the tables, chairs and sideboards found in food service areas.

The type used will depend upon the type of menu and service offered, the cost, and the washing up facilities. Many fast-food restaurants use disposable items and have easy to clean tables. High class restaurants on the other hand, may use fine porcelain crockery, linen tablecloths and napkins, crystal glasses and silver cutlery.

Equipment and Materials

Powered Equipment

A wide range of powered equipment is used in food service areas. This includes hand-held credit or debit payment facilities, coffee machines, toasters, vending machines, flambé trolleys and hot and cold service counters.

EPOS (electronic point of sale) can be used to send orders from the restaurant and bar to the kitchen and reception – this assists staff with the customers bills.

Equipment and Materials

Use and care of powered equipment

- All electrical equipment must be checked for safety every year
- All equipment on view in a food service area should be spotlessly clean and polished daily
- The temperature of hot and cold food service areas should be monitored daily
- Coffee machines should be kept clean at all times and serviced regularly

Task Find out how EPOS works

Record keeping – administration

Records kept
Stock control
Personnel records
Health and safety, Food hygiene
Booking/reservations
Purchasing
Financial vat etc

Stock control

Monitor stock levels for re ordering
Decide frequency of stock check
First in First out for items with a shelf life
Stock level checks could be for

- Wines
- Spirits
- Coffee
- Order pads
- Garnishes
- Cutlery
- Crockery
- Drinks in bar area
- Nuts, breadsticks
- Other consumables

Personnel records

- Hours worked
- Personal details
- Wages
- Taxation
- National insurance
- Training
- Accidents
- Staff rotas and timetables

Health and safety, hygiene

- Fire certificate
- Staff training records
- Accident book
- Food hygiene checks
- Cleaning checks
- First aid records

Purchasing

- Food and drink orders
- Packaging orders (eg take away
- Equipment
- Tables, chairs etc
- Consumables and disposables
- Cutlery and crockery
- Staff uniforms
- Leased items

Staff allocation

The restaurant manager coordinates all activities at the restaurant.

The restaurant manager must define the tasks that staff must perform Consider

- The size of the restaurant,
- Flow of customers, type of clientele and
- Menu offerings
- Different skills and personnel requirements related to changes of volume and customer preferences.

Staff allocation

Each employee must have a Clear job description which enables the restaurant manager to ensure that the duties assigned to staff members do not overlap and to control staffing costs

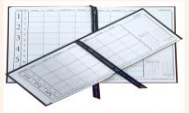
The restaurant manager allocates the number of personnel to shifts according to the demand forecasts for the day.

Staff allocation

A restaurant that experiences peak and slow seasons has a different staffing schedule than one with a steady flow of customers throughout the year. The restaurant manager determines whether to hire temporary workers supplement the permanent workers when the season is at its peak

Bookings and reservations

- Electronic booking system
- Electronic reservations system
- Diary with bookings and reservations
- Feedback forms



Year 10 Hospitality and Catering Summer Term Knowledge Organiser

LO2 Understand how Hospitality and Catering provisions operate

Uniform / dress code

- Some establishments have staff wear the same uniform; this makes them easily identifiable for staff and customers. The uniform may change depending on which area of the establishment they work in.
- Protective clothing as part of a uniform must be paid for by the employer.

Describe The Front of House Operation

Task = Design the front of house operation for a new café that is opening in your town. Incorporate the; style of the restaurant and work flow, equipment and materials needed, how you will control stock, documentation used, staff allocation and dress code and safety and security.

= Visit a local café (or watch a you tube clip) describe the operation layout and work flow, equipment and materials needed, how you will control stock, documentation used, staff allocation, dress code and safety and security.

Business customers requirements

- Dedicated corporate (business) contact at establishment
- Discounted rates
- Meeting rooms
- Water, juice on tables
- Presentation equipment, projector, tv,
- Office facilities- printer, phone, fax, internet,stationery
- Tea and coffee for breaks
- Lunch or other meals- buffet or restaurant
- Accommodation if attendees are from a long distance
- Quick service for lunch meetings

Customer trends

Customers are influenced by

- TV
- Magazines
- Health
- Travel abroad
- Technology
- Ratings and reviews

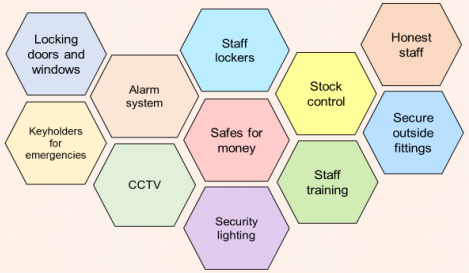
Customer rights.

- The right to be protected (against hazardous goods)
- The right to be informed (about quality, quantity, allergies etc)
- The right to have their complaints be heard
- The right to seek redressal (compensation.)
- the right to receive satisfactory goods that match their product description

Consumer Rights Act 2015

Food Safety Act 1990

Safety and security



AC2.3 explain how Hospitality and Catering provision meets customer requirements

Customer

- leisure
- business/corporate
- local residents

Requirements

- customer needs,expectations
- customer trends
- customer rights, equality

leisure customers requirements

- Value for money
- Good facilities
- Families want child menus, play area, child friendly
- Tourists want local food, easy to communicate
- Older people may want more formal service
- Good customer service
- Varied choice of menu
- Dietary needs eg allergies, intolerances, vegetarian catered for without having to ask for special foods
- Facilities for physically impaired customers

Latest trends 2016-17

- Traditional foods served new ways
- Authentic ethnic food eg Korean, Mexican, Indian
- Less sugar in foods
- Use of nuts and seeds and plant milks
- Clear lists of ingredients on menus
- Increased use of spices

•A restaurant hasn't kept my booking, can I claim compensation? When you book a table, a restaurant has a contractual obligation to provide it. If it fails to, you may be entitled to compensation.
•Do I have to pay a service charge if the service is poor? If you go out for a meal and receive poor service you have rights that protect you from having to pay any service charge.
•I got food poisoning while eating out, can I get my money back? Under the Consumer Rights Act, you can claim compensation or a refund if you get food poisoning from a restaurant.
•I had poor quality food at a restaurant, should I have paid? You have a right to expect food of satisfactory quality and 'as described' on the menu. If it is not, you shouldn't have to pay for it.

Health and safety

See AC3.1 for more details

All businesses should carry out a regular health and safety risk assessment. This involves looking at your business and identifying potential hazards that may affect staff or members of the public. Your risk assessment should tell you whether you are doing enough to mitigate these risks.

Must have a comprehensive health and safety policy that demonstrates to your staff how hazards and other issues are to be dealt with, and that you are able to produce this policy for an inspector .

Types of establishments-recap

Commercial

- Hotel
- Bed and breakfast
- Guest houses
- Holiday parks

Residential establishments

- Café
- Pub
- Restaurant
- Fast food outlets
- Take away outlets
- Food trucks

Non- residential establishments (food only)

Non-commercial

- Hospitals
- Care homes
- Prisons
- Armed services

local customers requirements

- Value for money
- good standard of customer service so they return
- Catering for local needs (culture, religion)
- Consistent dishes served
- Loyalty schemes
- Recognised by staff- feel welcome
- Menu specials
- Theme nights
- OAP discount day
- Child friendly
- Entertainment
- Mailing list or email for special offers

Latest trends 2016-17

- New ways of cooking, barbeque, teppenaki
- Nose to tail – using less conventional parts of animal so none is wasted
- Premium local foods
- Food truck style dishes
- More vegetable dishes

Equality and discrimination

Disability Discrimination Act

Equality Act 2010

You must be treated equally with regard to

- Age (except where too young)
- Disability and ability to access
- Gender or gender reassignment
- pregnancy and maternity
- Race
- Religion or belief
- Sexual orientation

Health and safety

See AC3.1 for more details

As there are risks to the public ie customers of the establishment as well as staff, the establishment should have both public liability insurance and employers liability insurance . As well as complete risk assesments for the public areas of the establishment

Types of customer

Leisure	Local residents	Business / corporate
Customers who visit the establishments in their leisure time e.g. a meal with friends, a family day out, tourists,	Customers who live in the local area who visit the establishment often eg regular Sunday lunch, or get togethers	e.g. business lunches. Use business facilities in establishment for meetings or presentations . Courses and conferences

Why is customer service so important in the hospitality industry?

Customer service is what an establishment does in order to meet the **expectations** of their customers and generate customer satisfaction.

- **So customers return.**- People will not return to a place where they were not satisfied with the service. Repeat business means a successful business.
- **Exceeding expectations-**This makes repeat business more likely
- **Growth of the business-** If customers receive a high standard of service ad return, they will spend more money and also tell other people about the business

What is good customer service?

7. The James family want to stay in a hotel in London. Mr James is a wheelchair user, and he has two children, one aged 6 years and the other 18 months. This is the family's first visit to the city and they want to make the most of the attractions on offer.

The Kenyon Hotel

Air conditioning · 24 hour room service · Concierge · Baby sitting · Disabled accessibility · Free Wi-Fi · Storage of belongings after check out · Cots available · Free Parking

(a) Explain how the accessibility in this hotel will meet the needs of the James family. [6]

(b) Explain how the free Wi-Fi service in this hotel will meet the needs of the James family. [4]

Year 10 Hospitality and Catering Summer Term Knowledge Organiser

LO3
Understand how hospitality and catering provision meets health and safety requirements

AC3.1 personal safety responsibility

Abbreviation	Full name
HASAWA	Health and safety at work act 1974
RIDDOR	Reporting of injuries diseases and dangerous occurrences regulations 1995
COSHH	Control of substances hazardous to health regulations 2002
PPER	Personal protective equipment at work regulations 1992 http://www.hse.gov.uk/pubns/indg174.pdf
MHR	Manual handling operations regulations 1993

H.S.E Health and Safety Executive.

- H.S.E stands for the **Health and Safety Executive.**
- The H.S.E will investigate any complaints and safety incidents.
- The H.S.E employ Health and Safety Enforcement Officers who will inspect safety procedures being used.
- They have the power to serve notice and/or issue legal proceedings over safety incidents.
- It is compulsory to contact the H.S.E if an operative has an absence of more than three days following an accident at work.

Fire safety

- Employers must have arrangements in place
  - to prevent fires
  - To raise the alarm
  - To fight fires (fire extinguishers)
  - Emergency evacuation (including a pre-arranged meeting place for staff to assemble following evacuation)
- Notices showing the safe evacuation routes from buildings should be green and white

Control measures

- Control measures are put in place by employers to protect staff from hazards and risks that have been identified
- The hierarchy of controls
- Employers are allowed to take costs into account and work their way down the list until a suitable solution at reasonable cost has been identified
  - Elimination
  - Substitution
  - Controlling risks at source
  - Training, instruction and supervision
  - Personal protective equipment

COSHH

SUBSTANCES COVERED BY COSHH:

1. Chemicals including cleaning chemicals
2. Micro-organisms
3. Dusts
4. Medicines, pesticides, gases
5. HSE list (Health and safety executive)

Health and safety at Work Act 1974

- This act covers all aspects of health and safety at work.
- All employers must take care of their own health and safety and not endanger others.
- The health and safety executive (HSE) exists to protect peoples health and safety by ensuring risks are properly controlled.
- HASWA also protects other people from risks to their health and safety arising out of the activities of people at work.
- The law applies to everyone at work and anyone can be prosecuted if they do not act safely

Prevention of Falls

- Employers must ensure that any working areas above the ground or below (e.g. inspection pits) are guarded or protected
- If you have to work above ground level you must be kept safe e.g. by wearing a safety harness if it is an area such as a flat roof which is not guarded
- Stepladders should only be used for jobs that do not take long and they must be safe and stable when in use
- Slips prevention with non slip floors or shoes

Moving and Handling

- You may be asked to lift, carry push or pull a load at work
- You should always follow safe practice when doing any moving and handling
- You should never attempt to move anything that is too heavy or difficult – ask for help
- Employers should provide equipment to help you to move heavy or difficult loads

Trips, slips, falls - personnel

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Trips slips falls
Control measures	Training and instruction from teacher Adequate housekeeping Work areas well lit Care exercised with known hazards Spills cleared up ASAP
Risk calculation 2x3=6	
Recommended	Display signs if needed for new hazards

Possible health problems

1. Contact causing irritation
2. Sensitising substances
3. Toxic fumes
4. Carcinogenic
5. Infectious
6. Fire, explosion
7. Environmental harm problems

Duties of employers HASAWA

- To protect the health, safety and welfare of staff
- Carry out risk assessments
- To provide and maintain safe equipment and safe systems of work
- Safe use, handling, storage and transport of articles and substances
- Provide a safe workplace with a safe entrance and exit
- Provide information, instruction, training and supervision on how to work safely
- Provide a written safety policy

Environment

- There must be sufficient space to work safely and enough lighting and ventilation
- Workplaces must be kept generally clean and tidy
- Chairs must be safe and comfortable
- Temperature – must be "reasonable"
  - Reasonable means at least 16ºC for office work and 13ºC where there is physical work
  - In very hot weather, employers only need to provide local cooling e.g. fans

Equipment

- The term covers everything from a hand tool to a large machine like a stand mixer
- Before you use equipment at work you should be shown how to use it safely
- You should never use equipment that you are not trained or authorised to use
- Electrical equipment should have a sticker on it indicating that it has been P.A.T. tested and giving a date when the next test is due

Accidents at work

- All accidents, however minor, should be reported to your supervisor
- Similarly, all incidents of ill-health (caused from work) should also be reported
- Accidents include those that resulted in injury or damage and "near misses" – those which COULD have resulted in injury or damage
- Your supervisor will decide if the incidents needs to be recorded in the accident records
- Violent incidents are included (this includes verbal threats)

Employees responsibilities under COSHH

1. Use control measures and facilities provided by the employer
2. Ensure equipment is returned and stored properly
3. Repor defects in control measures
4. Wear and store personal protective equipment (PPE)
5. Removing PPE that could cause contamination before eating or drinking
6. Proper use of washing, showering facilities when required
7. Maintaining a high level of personal hygiene
8. Complying with any information, instruction or training that is provided

Duties of employers HASAWA

- Make sure there are toilets, places to wash and drinking water for workers
- Make sure that there is first aid provision
- Provide PPE for jobs if needed
- Have insurance to cover injury or illness at work
- Ventilation lighting and emergency exits

- provide a health and safety law poster entitled "Health and Safety law: What you should know" displayed in a prominent position and containing details of the enforcing authority.

First Aid

- Employers have to provide first aid facilities at work
- As a minimum, there should be a fully stocked green first aid box and a person appointed to take charge in an emergency
- Some workplaces have qualified first aiders and first aid rooms
- Green and white notices should inform you where the first aid box is kept and who the first aider(s) or appointed person(s) is/are

Safety of equipment

- Only use equipment for which you have been authorised and/or trained
- Always wear any personal protective equipment such as goggles or gloves if you have been instructed to do so
- Carry out a visual check of equipment before you use it and look for any obvious defects
- If you notice something wrong or unusual, report it to your manager and put the equipment out of use

Enforcement

- Inspectors from the Health and Safety Executive (HSE)
  - Manufacturers; schools and colleges; repairers; specialist places like hospitals and power stations
- Environmental Health Officers
  - Places where the public go like shops, offices, leisure facilities
- Fire Officers
  – just enforce the bits relating to fire safety

Magistrate's court
- £20,000 per offence
- Up to 6 months in prison

Crown court serious offences
- Unlimited fines
- Imprisonment for up to 2 years

Every substance that is a hazard has a COSHH safety sheet

This sheet deals with opening, tipping sieving flour and making dough
Why could this be a hazard?

Year 10 Hospitality and Catering Summer Term Knowledge Organiser

LO3
Understand how hospitality and catering provision meets health and safety requirements

COSHH symbols on containers

Safety data sheet

This is a safety data sheet for Fairy washing up liquid. It may not be a hazard to you if you only wash up once a day but if you washed up for long periods of time as part of your job it could become an irritant or hazard

Common substances and controls

- Cleaning chemicals
- Washing up liquid
- Cooking fumes
- Smoke
- Oils
- Gas

- Wear gloves
- Extractors over cookers
- Face mask

What is RIDDOR?

- RIDDOR is the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013.
- The law requires employers and other people in control of work premises (known as the 'responsible person') to report to the Health and Safety Executive (HSE) and keep records of the following:

- work related fatalities
- work related accidents causing certain serious injuries (known as reportable injuries)
- certain work related diagnosed occupational diseases

What has to be reported to HSE

- Death
- Injuries resulting in over 7 days off work (7 day injuries)
- fractures (except fingers, thumbs and toes);
- amputation of limbs or digits
- loss or a reduction of sight;
- crush injuries
- serious burns (over 10%)
- unconsciousness caused by a head injury or asphyxia;
- any other injury needing admittance to hospital for more than 24 hours.Hypothermia

Who should report an Accident

1. An employer or person in charge of the premises
2. A self employed person
3. A member of the public
4. An injured person or their representative

Occupational diseases

- carpal tunnel syndrome
- severe cramp of the hand or forearm
- occupational dermatitis
- hand-arm vibration syndrome
- occupational asthma
- tendonitis or tenosynovitis of the hand or forearm
- any occupational cancer
- any disease attributed to an occupational exposure to a biological agent.

What must be reported

- An accident is a separate, identifiable, unintended incident that causes physical injury.
- Also includes acts of violence to people at work.
- Not all accidents need to be reported, a RIDDOR report is required only when the accident is work-related;
- and it results in an injury of a type which is reportable When deciding if the accident that led to the death or injury is work-related,
- the way the work was organised, carried out or supervised;
- machinery,substances or equipment used for work;

How do you report an accident

Accidents are reported to the **HSE** Health and Safety Executive

- This is most easily done by reporting online.
- Alternatively, for fatal accidents or accidents resulting in specified injuries to workers **only**, you can phone 0345 300 9923.
- NB: A report must be received within 10 days of the incident.

What records need to kept?

If you do not keep a copy of the online form your records must include :

- the date and method of reporting;
- the date, time and place of the event; personal details of those involved;
- and a brief description of the nature of the event or disease.

Record other accidents resulting in injuries where a worker is absent from work or is incapacitated for more than 3 days.

Penalties

- An employer who fails to comply with RIDDOR may be liable on conviction to:
- a fine not exceeding level five on the standard scale, currently £5,000 in a magistrate's court
- an unlimited fine in a Crown Court.
- Note: Accidents or incidents may have been caused by breaches of other health and safety legislation. The penalties for breaching other legislation may be heavier than those for failing to comply with RIDDOR.

Not all reportable incidents will be investigated by HSE All incidents should be analysed and lessons learned and shared

Personal Protective Equipment at Work Regulations 1992 (PPER)

- PPE is equipment that will protect the user against health or safety risks at work. Includes clothing and other items worn by staff to protect themselves from work hazards
- It can include items such as Gloves, goggles, hard hats, hearing protectors, warm clothing (in cold conditions), safety shoes or boots, respirators etc
- Hearing protection and respiratory protective are not covered by these Regulations there are specific regulations that apply to them. these items need to be compatible with any other PPE provided.

PPE in catering situations

The requirements are set out in the **PPE Regulations 1992**. In addition, the Food Safety (General Food Hygiene) Regulations 1995 require every person working in a food handling area to wear suitable, clean, and (where appropriate) protective clothing.

- non-slip shoes where there is a slipping risk;
- 100% cotton garments (for example, chefs' whites) where there is a risk that the material may aggravate burns in the event of a fire
- where caustic cleaning substances are used, long-sleeved vinyl gloves, goggles, a visor and possibly respiratory equipment.

PPE in catering situations

Employers responsibilities under PPER

- Provide the PPE (free) if a risk assessment has shown it to be necessary
- It must be exclusively for you and fit you comfortably
- Provide somewhere to store it
- Provide facilities for it to be cleaned and maintained
- Replace it when necessary
- Provide training (if necessary) in how to wear/use it properly

Employees responsibilities under PPER

- You **must** wear the p.p.e. if it has been provided for you. You could be held personally liable if you had an accident which could have been prevented by you wearing your p.p.e.;
- You must care for it, store it and clean it as necessary;
- You must report any defects.

When selecting PPE

- choose good quality products which are CE marked in accordance with the PPE Regulations 2002
- choose equipment that suits the wearer – consider the size, fit and weight; you may need to consider the health of the wearer, eg if equipment is very heavy,
- let users help choose it, they will be more likely to use it.

Using and distributing PPE to your employees:

- instruct and train people how to use it;
- tell them why it is needed, when to use it and what its limitations are;
- never allow exemptions for jobs that 'only take a few minutes';
- if something changes check the PPE is still appropriate

Front of house

- Exposure to cleaning products and other chemicals.
- Musculoskeletal injuries from standing for long hours,
- working in awkward positions or
- performing repetitive manual tasks
- Lifting or carrying heavy trays or other objects.
- Noise exposure.
- Dealing with difficult or physical customers.
- Long hours of work or extended work days
- Cuts from handling broken glassware
- Burns from hot plates, coffee

Manual Handling Operations Regulations 1992

- Require you to avoid any manual handling operations at work which involve a risk to health – so far as reasonably practicable.
- If it is not reasonably practicable to avoid any manual handling operations, you must carry out a manual handling risk assessment to identify how the risk is caused, so each factor can be addressed and measures taken to control the risk.
- Provision of information, instruction and training to staff are legal requirements

http://www.hse.gov.uk/pubns/cais24.pdf

What Is Manual Handling?

- Any transporting or supporting of a load by hand or bodily force
- Lifting, putting down, pushing, pulling, carrying or moving

Assessing manual handling risk

Task:
What is it about the way that we organise the task which might affect our health and safety?

Individual Capabilities:
What is it about the people who are doing the job that might affect their health and safety?

Load:
What is it about the load which might affect our health and safety?

Environment:
What is it about the place which might affect our health and safety?

Risk assessment

start by considering the jobs carried out in the kitchen and the staff who work there. Look at the areas of work where there are most likely to be significant risks and prolonged exposure concentrate on:

- the handling tasks workers are doing;
- the loads they are lifting;
- the environment they are working in;
- the individual capabilities of each worker;
- the positions they need to get in to do the job, eg twisting and stretching;
- the time spent on each task, eg regularity of lifting and break times.

Food preparation

- repetitive motion of the hands, wrists and shoulders;
- forceful lifting or carrying of heavy bowls or pots;
- awkward bending and twisting of the back;
- awkward reaching

- utensils and knives with ergonomic handles designed for comfort and those that allow for power grips;
- Provide knives that are in good condition and kept sharp to reduce the force required by the user.
- chopping machines for vegetables to reduce manual chopping or buy in pre-prepared vegetables;
- workbenches of different heights.

Dishwashing

- lifting heavy pots;
- awkward bending and twisting when leaning over sinks for long periods;
- repetitive wrist and shoulder movements when scrubbing pots;
- repetitive reaching into pots;
- forceful arm exertions when scrubbing pots
- dishwashers if appropriate;
- false bottoms in deep sinks to reduce awkward bending at the waist;
- assess the weight of a pot before lifting it;
- keep pots close to the body when lifting and bend the knees rather than the back;
- point toes in the direction they are reaching to avoid twisting.

Ovens and steamers

- Ovens with side-hinged doors rather than bottom hinged doors allow easier access to items in the oven.
- Using oven racks between waist and elbow height to minimise awkward posture.

Soup kettles and heavy pots

- Large soup kettles with extended handles make it easier to tip the kettle when pouring soup into smaller containers.

Cleaning

- forceful exertions;
- awkward shoulder or back postures;
- cuts, bruises, pressure injuries and sore skin.
- long-handled brushes where reaching is required;
- cleaning tools that have soft rubber-like handles to reduce gripping force;
- a platform of adequate size to minimise reaching.

Removing waste

lifting heavy rubbish bags, which carries the risk of forceful exertion.

- provide smaller refuse bags;
- put up signs to remind staff not to overfill them.

Year 10 Hospitality and Catering Summer Term Knowledge Organiser

LO3
Understand how hospitality and catering provision meets health and safety requirements

AC3.2
Risks to personal safety in Hospitality and Catering

AC3.2 Risk Assessment Starter

Can you spot the 17 hazards in the image below. Write them down in your book

Answers

1. Holes around the pipe and the floor (access to pests)
2. The bottom of the door has been gnawed.
3. There is a hole in the dry store cupboard
4. The window in the door is broken.
5. The window is open and flies are in the room.
6. The bin is too full and overflowing.
7. There's a dead rat
8. Droppings in front of dry store cupboard
9. The fan cover is broken
10. Packages have been gnawed.
11. The cable on the toaster has been gnawed.
12. Infested delivery boxes
13. The ham has been left out on the bench.
14. Spider webs in the dry store cupboard.
15. The bread/toast has been chewed.
16. Potatoes aren't securely stored/covered in dry store.
17. The door on the cupboard has fallen off (food attracts pests)

Legislation

The Food Safety Act 1990

Health and Safety at Work etc. Act 1974

legislation requires businesses to meet certain standards in health, hygiene and safety. If a business does not meet these it could receive fines, suspension or closure of the business and in some cases imprisonment. For all these reasons employers want their employees to work in ways that are safe, healthy and hygienic and to ensure the workplace is kept clean and safe.

Reputation

Accidents and injuries can lead to employees having time off work, increased insurance costs and possible compensation to employees, Reviews and news media-customers will not want to visit a business which is unsafe no one wants to become ill from eating there

Assessing risks

To assess the level of risk of any hazard it is important to conduct a risk assessment. In a business there are five steps to risk assessment.

1)Identify the hazard.
2)Decide who might be harmed and how.
3)Evaluate the risk.
4)Record the findings and implement them.
5)Review the assessment and update if necessary.

Assessing risks

Risk/Hazard	Location	Who is at risk? (Employer, Employee, Supplier, Customer).	Level of risk. (High, Medium, Low)
Incorrect storage of food.	Kitchen	Customer	High
Unclean food area.	Kitchen	Customer	High
Cleaning fluids not stored correctly.	Housekeeping.	Employee, Customer.	High
Faulty Wiring	Bedroom	Employee, Customer.	High

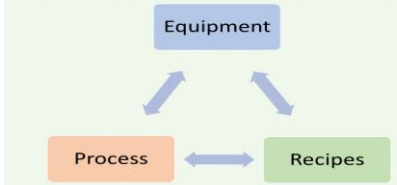
Risk Assessment

When you carry out a risk assessment you need to think about how likely it is to happen and what the consequence might be if it did. E.g. A spillage is very likely to happen in a restaurant kitchen.

	probability		Severity
1	Not very likely to happen	1	If it did happen the harm would be minimal and could be dealt with by an untrained person (e.g. might just need a plaster)
2	1 in 4 (25%) chance	2	Might need to visit a professional for advice or treatment (e.g. might need stitches)
3	2 in 4 (50%) chance	3	Would take a few weeks to heal, but not a serious injury.
4	3 in 4 (75%) chance	4	Could cause serious injury or damage, but would eventually be resolved (e.g. broken leg)
5	Very likely to happen	5	The result could be permanent disability, destruction of a building or in extreme cases, death.

What do you think the severity might be if someone was to slip on a spillage in a kitchen?

Assessing risks



Food processor

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Trap cut
Control measures	Training and instruction from teacher Supervision Processor assembled correctly Safety cut out switch Care when cleaning and dismantling
Risk calculation 2x2=4	
Recommended	None

Use of knives

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Cut
Control measures	Training and instruction from teacher Supervision when using knives Knives stored in a secure place Knives sharpened as appropriate
Risk calculation 2x3=6	
Recommended	Used under supervision

Ovens- items in and out of ovens

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Burn
Control measures	Training and instruction from teacher Oven gloves to be used Oven gloves must be dry Care taken putting in and removing items from the oven
Risk calculation 2x3=6	
Recommended	Use under supervision

The hob- handling hot foods

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Burn scald
Control measures	Training and instruction from teacher Supervision Extreme care taken when using the hob Remove from heat if burning of food occurs Bring to attention of teacher if severe
Risk calculation 2x3=6	
Recommended	Use under supervision

Burns and scalds- personnel

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Burn scald
Control measures	Training and instruction from teacher Supervision with potential dangers Care when handling Use dry oven gloves
Risk calculation 2x2=4	
Recommended	

Storage – growth of pathogens

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Growth of food pathogens
Control measures	Training and instruction from teacher High risk foods to be stored in refrigerator when not in use Refrigerators maintained at 1-5°C Completed protein based foods to be left to cool before refrigeration
Risk calculation 2x1=2	
Recommended	Signs on refrigerator door

Cooking – survival of pathogens

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Survival of food pathogens
Control measures	Training and instruction from teacher High risk foods to be cooked thoroughly Test by cutting open Test by juices running clear Test by temperature probe to 70-75°C Hot foods not placed in refrigerator
Risk calculation 2x1=2	
Recommended	Cooked foods to be refrigerated when cooled

Ragu (Bolognese sauce)

Potential risk	Measure	Likelihood
Cuts from using a knife unsafely	Demonstrate safe use of knives and monitor students' use	Low
Cuts due to running in room with knife	Remind students of rules in kitchen and instil safe conduct	Low/Med
Dirt or food poisoning bacteria present on raw food, causing cross contamination	Wash vegetables	Low
Burn from using the hob and/or hot saucepan	Demonstrate safe use of the hob and monitor students' use	Low/Med
perishable foods are not stored correctly leading to contamination	Ensure that meat is kept in the refrigerator before use and than non-perishables are kept in clean, dry containers, e.g. dried pasta	Low

Fajitas

Potential risk	Measure	Likelihood
Dirt or food poisoning bacteria present on raw food, causing cross contamination	Wash vegetables before use	Low
Cross-contamination from raw meat	Cut raw meat on a separate chopping board with a clean knife	Low/Med
survival of pathogens on cooking	cut through to test meat is cooked	low/med
Burn from using the hob and/or hot frying pan	Demonstrate safe use of the hob and monitor students' use	Low/Med
Frying pan knocked off hob	Ensure that frying pan handles are turned away from the edge	Low/Med
Cuts from using a knife unsafely while preparing the vegetables	Demonstrate safe use of knives and monitor students' use	Med

Handmade pasta

Potential risk	Measure	Likelihood
Burn to hand while using the hob	Demonstrate safe use of the hob and monitor students' use	Low
Scalds from hot water while draining pasta	Demonstrate how to drain hot water away from pasta and monitor students' use	Low/Med
Cuts from using pasta machine unsafely	Demonstrate safe use of pasta machine	Low

Scone base pizza

Potential risk	Measure	Likelihood
Out of date date-marks	Always read the date-mark	Low
Dirty hands used for rubbing-in	Wash hands thoroughly and regularly during cooking	Med
Burn from placing and removing pizza in oven	Demonstrate safe use of the oven, promote the use of oven gloves and monitor students' use	Low/Med
Cuts from using a knife unsafely	Demonstrate safe use of knives and monitor students' use	Med
Cuts from using a grater unsafely	Demonstrate safe use of graters and washing up with a brush	Low
Perishable foods are not stored correctly, leading to contamination	Ensure that cooked meat is kept in the refrigerator before use and than non-perishables are kept in clean, dry cupboards	Low

Risk Assessment

Carry out a risk assessment for one of the establishments listed below;

- Pub
- Restaurant
- Hotel
- Fast food outlet
- B&B
- Take away

Hazard	Type of hazard	Who is at risk?	Likelihood of occurring	Severity

Risk and Security

Workers can be at risk from security hazards in the same way they are from safety hazards. Security risks include

- Disagreements between customers
- Customers being intoxicated (alcohol)
- Customers who have used drugs
- Verbal abuse
- Physical assaults

Who is at risk?

Staff (and customers) may feel threatened by physical assaults, threats and intimidation and verbal abuse

People at risk includes

- Young workers who have less experience
- Night shift workers where there are less people
- Lone workers eg people working early or late
- Customers in the establishment

Risk factors

- Handling large amounts of money in open areas
- Face to face contact with customers
- Opening late in the evening or early in the morning
- Dealing with customer complaints or disputes
- Selling high value items such as alcohol
- Establishment in an isolated area eg country pub
- Poor lighting
- Establishment in a high crime area

Prevention

- Brightly lit areas
- CCTV
- Easy escape routes
- Area for handling larger sums of money
- Appoint more senior staff to deal with problems and complaints
- Train staff to difuse angry customers
- Contact local police if necessary
- Make sure lone workers are aware of risks
- Keeping doors and windows secure and locked

Instruction	Guidelines	Sign
Stop	Prohibition Sign • Round shape. • Black pictogram. • White background. • Red edging.	
Danger	Warning Sign • Triangular shape. • Black pictogram. • Yellow background. • Black edging.	
Obey	Mandatory Sign • Round shape. • White pictogram. • Blue background.	
Safety	Emergency Escape or First Aid Sign	
Fire	Fire Fighting Sign. • Rectangular or square. • White picture. • Red background.	

Year 10 Hospitality and Catering Summer Term Knowledge Organiser

Reducing security risks

Reducing safety risks

AC3.3 personal safety recommendations

Health and safety statistics

- 1.2 million people suffering work related illness
- 142 workers killed at work
- 611,000 injuries reported under RIDDOR
- 27.3 million working days lost to work related illness and injury
- £14.3 billion estimated cost of injuries and illnesses a year

The top four injury types in Hospitality and catering are

- Cuts,
- Burns,
- Sprains & strains,
- Slips, trips and falls.

How Can Cuts Be Prevented?

- Be careful when cleaning knives or blades.
- Always look at what you are cutting.
- Place a damp cloth under cutting boards to prevent slipping.

LO3
Understand how hospitality and catering provision meets health and safety requirements

How Can Cuts Be Prevented?

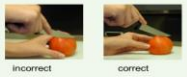
- Prevent machine cuts by:
  - Not wearing clothing or jewellery that could get caught in machines.
  - Not using equipment that you have not been trained to use.

How Can Cuts Be Prevented?

- To prevent cuts from broken glass:
  - Use a broom and dustpan to clean it up.
  - Wear gloves if you must use your hands.
  - Don't use hands and feet to smash down garbage and waste

How Can Cuts Be Prevented?

- To prevent knife cuts:
  - Cut properly, using the bridge and claw grips



  - Carry knives with point down and backwards
  - Wear gloves that protect your hands from cuts.

How Can Cuts Be Prevented?

- To prevent machine cuts:
  - Be sure moving parts are covered by guards.
  - Turn off power and unplug to clean.
  - Keep your hands, face and hair away from moving parts.

Teens under the age of 16 are prohibited from operating food slicers.

How Can Cuts Be Prevented?

- To prevent burns from grills and fryers:
  - Don't brush up against grills or fryers.
  - Stay clear of grills and fryers unless you are working there.
  - Wear a protective apron.
  - Use automatic food lowering devices.

How Can Burns Be Prevented?

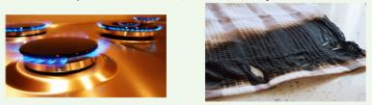
- To prevent burns from grills and fryers:
  - Cover hot oil and grease when not in use.
  - Let ice crystals melt away before frying frozen foods
  - Follow company rules for handling hot oil wastes.

How Can Burns Be Prevented?

- To prevent other oil and grease burns:
  - Watch out for spatters and spills.
  - Use protective apron and mitt.
  - Clean up spills as soon as they happen.

How Can Burns Be Prevented?

- To prevent burns from open flames:
  - Keep hair and clothes away from flames.
  - Keep flammable materials away from flames.



How Can Burns Be Prevented?

- To prevent steam burns:
  - Watch out for steam cloud when you open dishwasher, steam table or other places where steam occurs.
  - Wear protective gloves whenever you open something filled with steam.

How Can Burns Be Prevented?

- To prevent burns from hot food and drinks:
  - Understand how to operate equipment that produces hot food and drinks.
  - Make sure take-out lids are securely attached.
  - When carrying food, watch out for other people.

How Can Strains Be Prevented?

- Ask for help with heavy loads.
- Ask for training in safe lifting methods.
- Push loads rather than pull them.
- Don't lift and then twist.
- Don't lean out drive-through windows.

How Can Strains Be Prevented?

Before moving heavy goods. Think
- How heavy is the load?
- Do you need help to lift it safely?
- Do you need training or equipment to move it safely ?

How Can Strains Be Prevented?

Safe lifting techniques

- Position the feet
- Bend the knees
- Get a firm grip
- Keep a straight back
- Raise the load with your leg muscles
- Keep the load close to your body

How Can Slips, Trips & Falls be Prevented?

- To prevent trips, slips and falls:
  - Make sure your path is clear, clean and dry before carrying a load.
  - Move boxes and carts out of the way.
  - Watch for mop and broom handles.
  - Use non-slip floor pads.

How Can Slips, Trips & Falls be Prevented?

- To Prevent trips, slips and falls:
  - Wear shoes with soles that grip.
  - Clean up spills as soon as they happen.
  - When you carry something, put a lid on it. Use a cart or hand truck if it's heavy.
  - Be aware of your working area.

How Can Slips, Trips & Falls be Prevented?

- Ladders:
  - Use ladders correctly.
  - Don't lean out away from the ladder. Move it closer.
  - Have a helper secure the area.
  - Put the ladder back where it belongs when finished.
  - Don't leave a ladder unattended.

Illness or injury - Actions to take

Customer safety

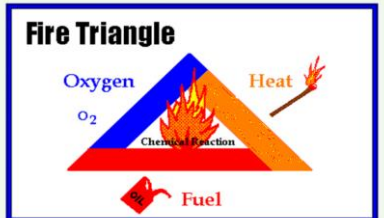
- Warn customers that plates are hot when food is served
- Keep areas where customers will walk free of trip hazards
- Clear up spills that could be come a slip hazard
- Good lighting in car parks, walkways
- Clear up spills and hazards in lavatories
- Check and maintain equipment the customer might use eg hand dryers, in room kettles

Customer safety

- Warning signs when cleaning is taking place
- Do not allow customers in areas where maintenance work is happening
- Signs "mind your head" "watch the step" "hot water"

Causes of fires

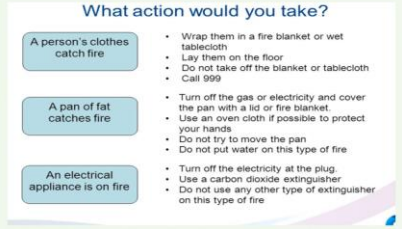
- **Equipment** that is not serviced regularly can cause over heating and cause fires.
- ***Human Error.*** many fires that happen in catering. Such as fat fryers.
- **Electrical** . smouldering wires can develop unseen overnight and be the cause of major incidents..
- **Arson.** rare occurrence. grudge between employee and employer, or insurance fraud.
- **Chemical**. Not very common now due to the COSHH regulations.



Action on Discovering a Fire.

- Raise the alarm. *Break the glass of the nearest alarm point.*
- Call the fire services.
- If safe to do so tackle the fire, if in doubt get out.
- Leave the building via the nearest exit calmly. DO NOT run or use lifts.
- Evacuate the premises and report to your designated assembly point.

What action would you take?



Fire Blanket

- Fire blankets are used to cover small fires to exclude the oxygen, they come in a self contained sleeve.
- Used on oil and fat fires or to wrap around a casualty.
- Not for electrical fires

General Instructions for use:

- Read instruction plate before use.
- Ensure that you are positioned between the fire and a safe exit/escape route.
- Pull tapes to remove blanket from container.
- Hold blanket by the tapes and cover burning material completely (using the blanket to shield your face & hands).
- Leave to cool for a least 30 minutes, keeping out of the smoke.
- Turn off the electrical or gas supply and leave the area closing all doors behind you.

Preventing a fire from Starting.

- Store flammable materials safely.
- Ensure staff are trained and updated on fire training.
- Make sure "No Smoking" signs are evident and strictly implemented.
- Regular fire checks for fire hazards such as:
  - Rubbish storage areas.
  - Kitchen ventilation.
  - Gas & Electrical equipment.
  - Flammable chemicals.