YEAR 11 CYCLE 1 BUSINESS

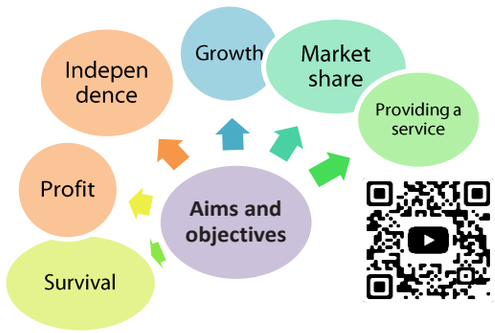
Knowledge Organiser

Unit 1: Business Activity

1 Business Aims and Objectives

Business objectives: are what the business wants to achieve.

Survival
The business can pay its costs but has nothing left.
Profit
The difference between revenue and costs.
Market share
The share of the total market for a product.
Growth
The business becomes larger (open another store, expand the product range, sell more products, get new clients).



Aims can be financial and non financial (profit or ethical)
As businesses evolve their objectives may change.
Initially: the aim may be to simply survive.
Later: the aim may be to increase profit or market share.
The objectives will also depend on the type of business ownership (i.e. sole trader or limited company).
Objective are often SMART (Specific/ Measurable/achievable/Realistic and Timely).

Week 3 Revenue, Costs and Profit

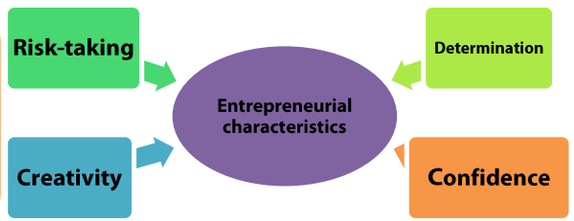
Revenue	Money in coming	Quantity sold x selling price
Variable costs	**Cost to make that one product**	Quantity sold x variable cost per unit
Fixed costs	Rent and bills which are not related to how many we make or sell (output).	
Total costs	What we spent	Fixed costs + variable costs
Gross profit	Doesn't include fixed cost	Revenue - cost of sales
Net profit	When we take out the fixed cost	Gross profit - expenses
Gross profit margin	% in relation to revenue	Gross profit ÷ revenue x 100
Net profit margin	Real profit with all cost removed in a %	Net profit ÷ revenue x 100
Profit	Revenue - costs	

Businesses will need to interpret these figures to help make business decisions.

Average rate of return
A method of measuring and comparing the profitability of an investment over its life.
Expenses
The costs of operating the business.
Profitability ratios
Calculations which help to interpret financial data.

Week 2 Entrepreneurship + Business Aims and Objectives

Enterprise is: seeing an opportunity to provide a product or service that people are willing to Buy.



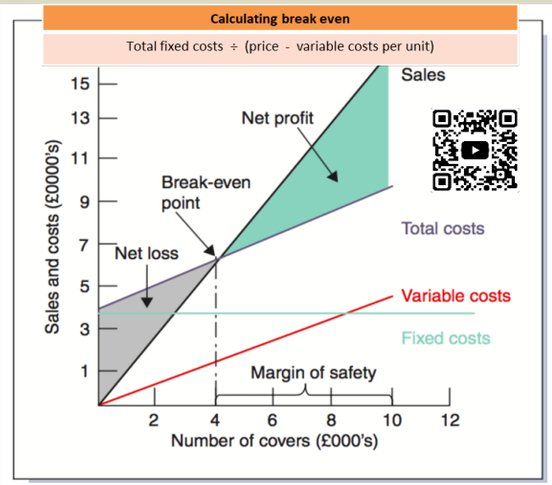
Risk	Reward
▪ **Financial** Possibility of losing money.	▪ **Financial** Some successful entrepreneurs can make a lot of money.
▪ **Health** The strain of being in charge can affect health.	▪ **Independence** Some people like to be their own boss and have flexibility.
▪ **Strained relationships** Starting a business is time consuming.	▪ **Self-satisfaction** Some people like to see and idea work.

Entrepreneur
A person who takes the risk of starting and running a business.

Enterprising characteristics
Features of an entrepreneur.

Breakeven week 4

Breakeven:
Where we have sold enough goods to cover our cost
Margin of Safety
The amount passed the breakeven point you are in the safe zone that you will make money. Can be measured in sales or money.
Net Profit
Money made from the sales after you have taken out the cost (fixed and Variable)
Impact of cost and revenue
If I put up my prices, I will have a lower breakeven point, if I cut down on the cost and expenses (like cheaper rent or cheaper ingredient) my breakeven will be lower
Turnover = revenue



Interest: *money we pay to borrow the money, often a %.*
Quote: "turn over is Vanity, Profit is sanity" *meaning that you can be selling lots of good and services but not making a good profit, this is why we look at the margin of profit.*

YEAR 11 CYCLE 1 BUSINESS

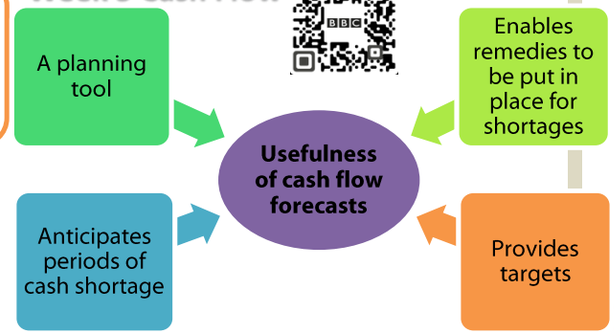
Knowledge Organiser

Unit 1: Business Activity

Cash flow forecast: shows the expected flow of money into and out of a business.
Cash flow: not just notes and coins but card payments too.

Inflows
Cash flowing into the business.
Outflows
Cash flowing out of the business.
Expenditure
Money that the business pays out.
Opening balance
Cash available at the start of the month.
Closing balance
Cash available at the end of the month.

Week 5 Cash Flow

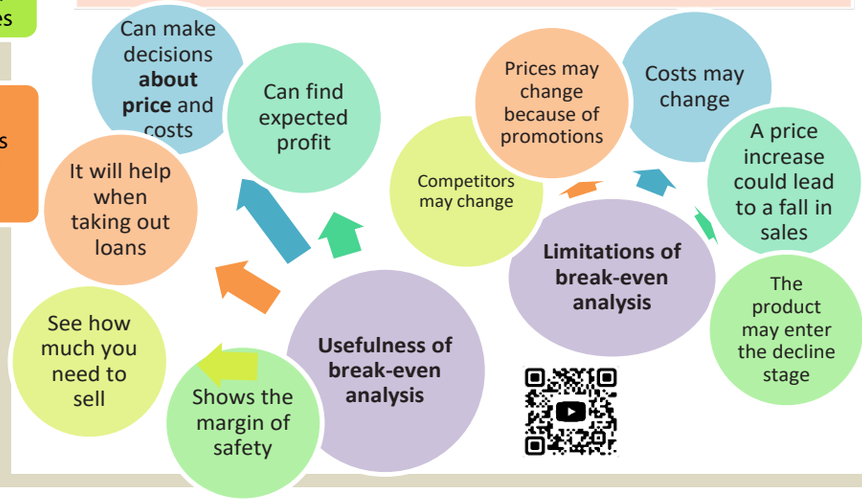


A negative cash flow may:
- only be temporary and may not necessarily cause a problem for the business.
- require the business to obtain additional finance in the form of an overdraft to help it overcome a shortage of cash.
- mean that the business has to delay payment of money it owes to others such as suppliers.

6 Limitation and advantages of break even

Calculating break even

Total fixed costs ÷ (price - variable costs per unit)



Week 7 Business Ownership

Sole trader

Advantages	Disadvantages
▪ Easy to set up ▪ Little finance required ▪ Full control ▪ Keep all the profits ▪ Financial information is private	▪ Unlimited liability ▪ Business stops if ill or on holiday ▪ Long working hours ▪ Shortage of capital ▪ Skills shortage ▪ No continuity

Partnership

Advantages	Disadvantages
▪ More capital available ▪ Easy to set up ▪ More skills available ▪ Shared workload ▪ Financial information is private	▪ Shared profit ▪ Unlimited liability ▪ Shortage of capital ▪ Slower decision making ▪ No continuity

Week 8 Business Ownership

Private Limited Company (LTD)

Advantages	Disadvantages
▪ Limited liability ▪ Continuity ▪ Can raise capital more easily ▪ Control over share sale	▪ Financial information available to the public ▪ Complex and expensive to set up ▪ Sale of shares is restricted ▪ Dividends to be paid

Public Limited Company (PLC)

Advantages	Disadvantages
▪ Can raise large amounts of capital ▪ Easier to borrow money ▪ Limited liability for shareholders	▪ Possibility of a takeover ▪ Complex and expensive to set up ▪ Hard to manage as so large ▪ Financial information available to the public

Unlimited liability
Responsibility for the debts of the business rests with the owners.
Capital
Money raised to start or develop a business.
Deed of partnership
A document setting out the operations of the partnership.
Sleeping partner
Someone who only invests in a partnership.
Limited liability
Responsibility for the debts of the business is limited to the amount invested.
Shareholders
Owners of a limited company.
Dividend
Money paid to share holders from business profits.

Week 9 recap on 1-3. Week 10 recap on 4-6. Week 10 recap on 7-8.

YEAR 11 CYCLE 1 DRAMA - Developing skills and techniques in the Performing Arts

Week 1 and 2	Week 3 and 4	Week 5 and 6	Week 7 and 8	Week 9 and 10
Key skills and techniques for rehearsal and performance needed to achieve in Component 2 • Practice, repetition and recall to learn dialogue. • Experimentation of skills and techniques. • Interpreting and developing character. • Communication of style/genre. • Communication of themes and ideas. • Applying Health and safety. • Warming up and cooling down. • Response to teacher and peer instruction and feedback. • Reviewing and recording Development of skills. • Cooperation. • Application of relevant performance skills for the style and genre chosen. • Application of interpretive skills – expression, character, mood and atmosphere.	**Drama styles** Naturalistic – performance is as close to real life as possible. **Non-naturalistic** – performance is more theatrical, tells a story using techniques such as flash-back, direct address to the audience (breaking the fourth wall), multiple role-play. **Abstract** – uses lots of symbolism, surreal settings, Artaud's theatre of cruelty (making the audience think or feel uncomfortable). **Physical theatre** – performers focus on their bodies, mask work, creating settings and props using bodies of performers, mime, dance work. **Theatre-in-Education** – a play created to teach a lesson, passes on a message, often includes a workshop or discussion of some kind. **Verbatim Theatre** - a play that is scripted using real words from interviews.	**Drama Genres** **Comedy** – funny story, ends happily. **Tragedy** – story shown is sad, ends unhappily, death or downfall of main character(s). **Gritty Realism** – about real-life, usually dealing with poverty, people struggling with their lives. **Historical Drama** – set in a particular historical period, such as, World War 2, Roman times. **Docudrama** – looks like a documentary, with reconstructions included. **Thriller/Horror** – to scare your audience, to make them feel uncomfortable, to make them jump, creates tension/suspense in your audience. **Melodrama** – over the top acting, Victorian drama – lots of entrances and exits. **Farce** – lots of quick entrances and exits, characters just missing each other, comedy.	**Some key scripts you may want to consider** **The Importance of Being Earnest by Oscar Wilde** - a comedy of manners with hints of satire and performed in a slightly melodramatic way. **Blood Brothers by Willy Russell –** a combination of tragedy and musical theatre. It was originally written without songs, so has a different feel to a traditional musical. **Abigail's Party by Mike Leigh -** a realistic comedy. The style is slightly more melodramatic than naturalistic as it was the result of improvisational activities. **The Dumb Waiter by Harold Pinter -** an absurdist play. The cast must be two males. It has comic moments and lots of tension.	**Some key scripts you may want to consider** **The Birthday party by Harold Pinter -** an absurdist play. It has comic moments and lots of tension. **Hard to Swallow by Mark Wheeller -** a gritty issue based play on the theme of eating disorders. Based on a true story it is part naturalistic, and often non naturalistic in a physical way. **The Caucasian Chalk Circle by Bertolt Brecht -** a play in the **epic** style. It uses many stylistic devices such as play within a play, irony, satire, humour, imagery, songs, wise sayings, contrast and symbolism, among others. **Antigone by Sophocles –** Greek Tragedy – using all the traditional conventions**.**

YEAR 11 CYCLE 1 HEALTH AND SOCIAL CARE

YEAR 11 Health and Social Care Knowledge Organiser: Component 3 Health and wellbeing

Learning Aim A: Physical and Lifestyle Factors

How can factors such as health and lifestyle choices affect us? Understanding these factors is essential knowledge for your component 3 Health and Social Care exam.

WEEK 1: Health and wellbeing –
Not just the absence of disease but a holistic attitude:

1. Physical - healthy body & diet, sleep, shelter and personal hygiene.
2. Intellectual- Healthy brain, learn new knowledge, communicate & solve problems.
3. Emotional - Security, express & deal with emotions, self-concept.
4. Social – friendships and relationships.

Ill Health - a physical factor which can have a negative effect on health & wellbeing.
1. Acute- Illness starts quickly, lasts for a short period of time. Usually cured e.g. flu.
2. Chronic- Comes on more slowly, lasts a long time. Usually treated but not cured e.g. diabetes.

WEEK 2: Genetic Inheritance- Genes inherited from both parents:

1. Inherited characteristics -height, eye colour, hair colour.
2. Inherited conditions-Some alleles (genes) can be faulty & pass on conditions.

Dominant condition- One parent passes faulty allele on e.g. Huntington's.

Recessive condition- Both parents pass faulty allele on e.g. Cystic fibrosis.

3. Genetic predisposition - Some people are more likely to develop a condition due to genetic makeup *i.e. heart disease.*

WEEK 3: Diet-The balance of foods a person eats:

1. Foods to avoid
- *Salt* – raises blood pressure
- *Saturated fat* – raises cholesterol, heart disease
- *Sugar* – rots teeth, high in kcals (energy)

2. Other points
- Water is important to stay hydrated
- Controlled calorie intake can manage weight

Section	Nutrient	Needed for
Starchy foods	Carbohydrates (fibre if wholemeal)	Carbohydrates - Provides energy Fibre – Digestive system/prevents constipation
Fruit & vegetables	Vitamins Fibre	Vitamins - Keep the body healthy Fibre – Digestive system/prevents constipation
Meat, fish, eggs, beans	Protein	Growth and repair of cells and muscles
Dairy	Calcium	Strong bones and teeth
Oils	Unsaturated fats	Reduces cholesterol, Keeps the body warm, Protects organs

WEEK 4: Physical Activity

1. **Exercise types-** Gentle e.g. walking/ Moderate e.g. light jog/ Vigorous e.g. football.
2. **How much?** - Adult: approx. 150 mins moderate exercise per week.
3. **Exercise Benefits-** lowers BMI, strengthen bones & muscle. Better memory & thinking skills. Increases confidence and relieves stress. Social interaction and teamwork.
4. **Lack of exercise:** Stiff joints, Poor stamina/strength, Obesity, Stroke, Heart disease and Osteoporosis.

WEEK 5: Personal Hygiene

1. Good personal hygiene- Prevents spread of infection/ Improves self-concept/ Washing/ Brushing and washing hair/ Brushing teeth/ Clean clothes.

1. Effect on PIES of poor hygiene- **Physical**- Catching & spreading disease, Poor body odour, poor oral hygiene/ **Intellectual**– Reduction of opportunities/ **Emotional**– poor self–concept, bullied/ **Social** – social isolation, loss of friendship.

WEEK 6: Substance misuse

1. Alcohol - Men & women should drink less than 14 units/week, 1 unit = one single spirit, 1.5 units = 1 pint, 1 small glass of wine. Can increase risk of addiction & cancers.
2. Smoking & Nicotine – Cigarettes contain nicotine (addictive drug), tar, carbon dioxide & soot which are all harmful. People smoke to relieve stress, peer pressure, or are unable to quit.
3. Drugs – **Legal.** Prescription misuse - when people become addicted to them, take excess, or take someone else's.
4. Drugs – **Illegal**

Stimulants – Increase alertness i.e. Cocaine.
Depressants –calm, relax the body i.e. Cannabis.
Hallucinogens – cause hallucinations i.e. LSD.

YEAR 11 CYCLE 1 PHOTOGRAPHY

The GCSE Process

- **Mind map** of ideas.
- **Mood board** of images.
- **Influence** - gather images of photographers/artist who inspire you.
- **Analyse** their work
- Research **camera techniques.**

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- Plan your **photoshoot** based on your inspiration.
- **Recreate** elements of your chosen artist's work.
- Create and annotate your **contact sheet.**

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- Manual and digital **experimentation** with your images.
- **Edit** in a similar style to your inspirational artist.
- **Explore** different techniques, materials and processes.
- **Record** and **review** all your experimenting.

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- **Present** a personal **response** to your theme and artist inspiration.

AO1

Develop ideas through investigations, demonstrating a critical understanding of sources.

Task 1. Gather inspiration: Find images from other photographers and artist who inspire you.
Task 2. Image analysis: Use the analysing photographers help sheet on Teams to write about the work you have found.
The language of photography:
Line (diagonal), texture (rough), value (dark), form (geometric), colours (saturated), composition (leading lines), technique (collage or slow shutter speed), mood (nostalgic), context (culture), style or genre (abstract), space (negative/positive)
Task 3. Develop ideas: using all your research start to develop your own ideas. Write your statement of intent for your project.

AO2

Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.

Task 4. Link: Use similar techniques, settings and processes to the photographer you have researched.
Task 5. Experiment: Take a wide range of photos that link to your ideas and show that you can experiment. A minimum of 20 images per shoot.
Task 6. Techniques: Explore different techniques, processes and materials to find out what effects you can achieve. Keep a record of all your experimenting.
Ideas to try:
Print images in different sizes, add other media, draw over your images, experiment with water, create a 3D structure or a photomontage, use aperture/ shutter speed creatively, paint with light.

What is your next step? Complete this task in your ePortfolio.

AO3

Record ideas, observations and insights relevant to intentions as work progresses.

Task 7. Contact Sheet: Print all your photos from a shoot and annotate it using the writing frame on Teams.
Task 8. Annotations: Make sure you add notes alongside your photos/experiments that help to explain your thought process.
Task 9. Organise & sequence: Your ePortfolio must show clearly the sequence of your thought pattern and development of ideas. Make organised sequences of photos to show how your ideas have progressed.
Task 10. Draw: Create mini sketches to show photography shoot ideas, storyboards, drawing on contact sheets, drawing over photographs etc.

AO4

Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.

Task 11. Present: A personal response to your chosen theme or artist.
Task 12. Evidence: Make sure you show evidence of links between your work and the sources you chose to research.
Task 13. Understanding: Analyse and evaluate what you have done at each stage to show your understanding throughout the project. Demonstrate an understanding of visual language. For example:
Use compositional elements such as the rule of thirds, leading lines, negative space, blurring the background, symmetry, shape/pattern/texture/colour and tone.

YEAR 11 CYCLE 1 SPORT STUDIES

Year 11 Sport Studies Cycle 1 - R185: Performance & Leadership – Topic Area 2: Measuring Improvement in Performance.

Week 1:

Key components in performance:

- **Skill:** The learned ability to bring about an end outcome, with maximum certainty and the minimum outlay of time or energy.
- **Examples of skills:** Passing, shooting and catching in handball.
- **Tactic:** An action or strategy planned to achieve a certain aim.
- **Examples of tactics:** Aiming for an opponent's backhand in badminton.
- **Compositional idea:** The way a performer arranges and develops their performance.
- **Examples of compositional ideas:** Using canon or unison in dance.

Week 2:

Types of skill:

Skills can be classified into different types on a continuum.

- **Continuum:** A scale used to categorise something between two extremes.

- **Simple:** A skill that is straight forward and requires little concentration, both physically and mentally. Simple skills involve a limited amount of information processing. For example, sprinting in athletics.
- **Complex:** A skill which is more complicated and requires greater practice. Complex skills require large amounts of information processing. For example, a serve in tennis.

Week 3:

Types of Skill:

- **Open:** A skill affected by the environment, movements must be adapted.
  - The environment can be defined as the playing field or the players around you.
  - Players must consistently adapt their thought process or skill to the environment.
- **Closed:** A skill not affected by the environment, involving set movements and is self-paced.
  - Performed in the same situation and have no variation.
  - The actions follow a set routine.

Week 4:

Types of Practice

- **Fixed:** Repeatedly practising a skill the same way each time.
  - This is best for closed skills.
  - For example, practicing the short serve in badminton.
- **Variable:** Varying how you complete your practice.
  - This is best for open skills where the environment varies.
  - For example, shooting in football for different angles and with a different number of defenders.
- **Whole:** Performing the skill in its entirety without breaking it up into parts.
  - This is useful for closed skills.
  - For example, a basketball free throw.
- **Part:** Breaking the skill down into its constituent parts, which are practiced separately.
  - This is used for complex skills.
  - For example, the triple jump.

Week 5:

Types of Practice: Advantages & Disadvantages:

- **Fixed:**
  Advantage:
  - Skill becomes ingrained and perfected as it is repeated continuously.

  Disadvantage:
  - Can be boring and led to fatigue.
- **Variable:**
  Advantage:
  - Skills can be adapted.

  Disadvantage:
  - Can take a long time.
- **Whole:**
  Advantage:
  - Gives a feel for the whole skill, giving a sense of fluency.

  Disadvantage:
  - Can be physically demanding.
- **Part:**
  Advantage:
  - Good for sequencing.

  Disadvantage:
  - Can take a long time.

Throughout Cycle One: R185: Topic Area 1 - Continue to add to your logbooks for your practical sports (date, position, league/comp, details of what you did).

YEAR 11 CYCLE 1 SPORT STUDIES

Year 11 Sport Studies Cycle 1 - R185: Performance & Leadership – Topic Area 2: Measuring Improvement in Performance.

Week 6:

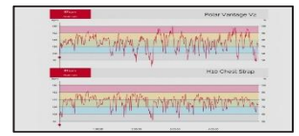
Other Methods of Improving Performance:

- **Altering the context:**
  - This could be by playing against a greater number of players.
  - For example, a 2 v 1 in football or handball.
  - This could also be by playing against players who perform to a higher level than you.
  - For example, playing against a county or academy player in rugby.
- **Advantages of altering the context:**
  - This provides a challenge for you to try and improve.
  - This can allow you to identify your areas of development.
- **Disadvantages of altering the context:**
  - If you continue to lose, it could be demotivating and have a negative impact on your confidence.
  - Can leave you relying on others to improve.

Weeks 7 & 8:

Measuring Improvement in Performance

- **Video Analysis:**
  - Allows examination of performance to improve skill and prevent injury.
  - Can identify small details which are missed during live performance.
  - Advantages:
    - Can lead to better performance.
    - Injury prevention.
    - Tracks improvement.
    - Performers can watch themselves.
    - Feedback can be more focused.
  - Disadvantages:
    - Can be expensive.
    - Can be difficult to complete.



- **Other Assistive Technologies:**
  - Using technology such as GPS trackers to monitor how far you run and heart rate (HR) monitors to track how high your heart is beating.
  - Advantages:
    - Can lead to better performance.
    - Tracks health/fitness levels.
    - Displays can cause you to raise your effort.
  - Disadvantages:
    - Can be expensive.
    - Focusing on statistics may not show everything!
    - Can impact team performance as you focus on yourself.

Weeks 9 & 10:

Measuring Improvement in Performance

- **Monitoring Competition Results:**
  - Recording how many games or matches you have won, drawn or lost.
  - Recording how many points or goals you have scored.
  - Recording how many points or goals you have conceded.
  - Advantages:
    - Can lead to better performance.
    - Allows you to identify any trends.
    - Tracks improvement.
    - Feedback can be more focused.
  - Disadvantages:
    - Can be difficult to complete.
    - Can have a negative impact on the athlete's confidence and motivation.
    - Results may not truly reflect the high levels of effort an athlete is giving.

Pos	Team	Played	Win	Draw	Loss	Points	Change
1	Liverpool	38	35	1	2	106	0
2	Manchester City	38	24	4	10	77	0
3	Leicester	38	19	7	12	64	0
4	Chelsea	38	17	10	11	61	0
5	Manchester United	38	16	11	11	59	0
6	Sheffield United	38	15	13	10	58	1
7	Arsenal	38	13	18	7	57	2
8	Wolves	38	13	17	8	56	-2
9	Burnley	38	15	9	14	54	1
10	Tottenham	38	14	10	14	52	-2
11	Crystal Palace	38	13	12	13	51	0
12	Everton	38	13	10	15	49	0
13	Southampton	38	14	4	20	46	1
14	Newcastle	38	11	12	15	45	-1
15	Watford	38	9	11	18	38	2
16	Brighton	38	6	17	15	35	-1
17	West Ham	38	9	8	21	35	-1
18	Aston Villa	38	10	5	23	35	1
19	Bournemouth	38	9	7	22	34	-1
20	Norwich	38	7	8	23	29	0

- The tools selected to measure improvement in performance will be dependent upon the chosen activity and the ability level of the performer.

Throughout Cycle One: R185: Topic Area 1 - Continue to add to your logbooks for your practical sports (date, position, league/comp, details of what you did).

YEAR 11 CYCLE 1 SOCIOLOGY

GCSE Sociology: Year 11, Cycle 1: Research methods

Week 1: Research process	Week 2: Data	Week 3: Sampling methods	Week 4: PET	Week 5: Evaluation
In Sociology, research involves several stages: **1. Aim.** The purpose of the research, what the researcher wants to investigate. **2. Hypothesis.** An idea which a researcher thinks might be true, but has not yet been tested against the evidence. **3. Review existing literature.** Before you carry out research, look at previous research on the topic. **4. Plan a research method.** Choose which method you will use to achieve your aim. **5. Sampling.** Choose your research participants (people you are studying). **6. Pilot Study.** A small-scale practice of your research to check for issues, practical problems etc. **7. Carry out research.** Look at your initial research plan and adjust it based on your pilot study, then you carry out your research on your sample. **8. Gather Results.** Collect answers / evidence, etc. **9. Analysis.** Make sociological statements from your findings. **10. Evaluation.** Evaluate the strengths and weaknesses of your research. **11. Publish.** Decide how to publish the results.	**Primary research** (data collected first hand). E.g. interviews, surveys, questionnaires, observations ✓ Reliable ✓ Relevant ✓ Scientific x Costly x Time consuming **Secondary research** (data from previously published sources.) E.g. census, media, websites, official statistics ✓ Large scale ✓ Cheap ✓ Quick x Could be unreliable x Interpretation issues **Qualitative data.** Data presented in words or visual form e.g. diary, photographs, mass media **Quantitative data.** Data presented in numerical form presented in graphs, pie charts or tables of statistics **Closed questions** ✓ Easy to process and present x Respondent cannot expand on their answer **Open-ended questions** ✓ More detailed answers x Difficult to convert into statistics x Time consuming to process	**Representative sample:** Typical of the wider population **Unrepresentative sample:** Some groups are under or overrepresented **Probability (or random) sampling** Simple random sampling Uses a computer to generate a random sample, everyone has an equal chance of being picked Systematic random sampling A system is used to pick the participants (e.g. every 10th name on the register). Stratified random sampling This involves picking people from different groups within the population **Non-probability sampling** Snowball sampling The researcher selects one person, then asks them to put them in touch with other people, and so on Quota sampling Each interviewer has an exact number of people from categories that they need e.g. females, teenagers. Purposive sampling The sample is collected according to a known characteristic e.g. a teacher.	PET (Practical, Ethical and Theoretical) issues also need to be considered by sociologists. Key practical issues include: Time. Is the research project too time consuming? Access. Can the researcher gain access? E.g. if researching gang culture, can the researcher gain access to a gang? Cost. How much will the research cost? Is this cost justified? Key ethical issues in sociological research are: Protecting participants from harm (emotional, psychological etc) Informed consent. The participant should know they are being studied and the purpose of the research Anonymity, privacy and confidentiality. The participants' identity must be protected, and all personal information should be kept confidential. Key theoretical issues in sociological research are • Validity • Reliability • Representativeness	Evaluating research involves assessing the following: **Validity.** Data is valid if it gives a true picture of social reality. **Reliability.** Data is seen as reliable if other researchers using the same methods get the same results. **Ethics.** Research must be carried out in a morally acceptable way. **Generalisation.** Assuming the results are valid, reliable and representative, you should be able to generalise your findings. **Representativeness.** Sociologists want the sample they are studying to represent a large group of people.

YEAR 11 CYCLE 1 SOCIOLOGY

GCSE Sociology: Year 11, Cycle 1: Research methods

Week 6: Observation	Week 7: Interviews	Week 8: Interviews	Week 9: Questionnaires	Week 10: Longitudinal
Participant observation. The researcher joins in with those being observed, but does not reveal who they are. ✓ Can provide a detailed picture of life over time ✓ Observers can enter into a relationship with people ✓ Allows researchers to study sensitive and deviant issues ✓ People unaware they are being studied, so more likely to behave naturally x Observers may get involved and see issues from the view of the group x The bias of the observers may affect their observations x Research takes time and money. It has to be limited so is not representative x Ethical issues if the observer conceals their true identity **Non-participant observation.** The observer doesn't take part but makes notes from afar. ✓ People unaware they are being studied, so more likely to behave naturally ✓ Research more likely to be valid x The bias of the observers may affect their observations x Ethical issues if people are unaware they are being observed	**Unstructured interviews** The interviewer has a general aim, but questioning is based on answers given by participants. ✓ Allows interviewer to build up a rapport ✓ Interviewees answer in their own words as opposed to choosing from categories ✓ Interviewers are free to set the direction of the interview rather than having fixed categories ✓ Research is therefore more likely to be valid x Interviewees may give the answers they think are desirable x Interviewees may be influenced by the interviewers and their gender, ethnicity, class and age x Different interviewers may get different results; this will affect reliability x Numbers may be limited because of expense; this will affect representativeness	**Structured interviews** The interviewer has a pre-prepared set of questions that are asked in a fixed order. ✓ Interviewers present to explain questions ✓ All respondents answer the same questions, so answers can be quantified and used to identify trends and patterns. ✓ Answers can be compared for different groups x Interviewers may influence answers x Respondents answer pre-set questions x Therefore, research is less likely to be valid **Group interviews** ✓ Access a wide range of views and experiences ✓ Participants may feel more at ease. ✓ Save time and money x Some may dominate discussion so everyone might not be heard x Cannot assure confidentiality	Questionnaires can produce quantitative or qualitative data. ✓ Relatively cheap and quick, so larger numbers can be completed – representative ✓ All respondents answer the same questions, so answers can be used to identify trends and patterns ✓ Answers can be compared for different groups x Respondents answer pre-set questions, so answers less likely to be detailed and valid x Respondents cannot explain their answers x Respondents may not return their questionnaires, affecting representativeness **Official statistics** ✓ The data is usually based on the whole population (representative) ✓ May be the only source of data ✓ Can investigate trends over time x Cannot check the validity x Could be politically biased	Longitudinal studies follow a group of people over time. Changes in people's social attitudes and experiences can be examined. However, they are expensive to conduct and there are practical problems in retaining the original sample. ✓ Allow researchers to examine social changes over time ✓ Changes in individuals' daily lives, experiences, behaviour, values and opinions can be identified x The time scale means that studies can be expensive and time-consuming x Involvement in the study may affect the behaviour of the participants – they might behave differently from the way they would have behaved if they had not been involved in the study x There are problems in maintaining contact with the original sample over time: people leave home, move house, move abroad or otherwise disappear for periods of time x People may change their minds and decide to withdraw from the study

YEAR 11 CYCLE 1 STATISTICS

Further Maths, Yr. 11 Cycle 1

AQA Lvl 2 Certificate in Further Maths

Paper 1
Written paper (Non-calculator)
40% of assessment
1h30mins – 70 marks

Paper 2
Written paper (Calculator)
60% of assessment
2hours – 105marks

- Number
- Algebra
- Co-ordinate Geometry
- Calculus
- Matrix Transformations
- Geometry

1 Number

1.1		Knowledge and use of numbers and the number system including fractions, decimals, percentages, ratio, proportion and order of operations are expected
1.2	Manipulation of surds, including rationalising the denominator	The use of surds in exact calculations Write $\sqrt{200} - \sqrt{72} + 3\sqrt{162}$ in the form $a\sqrt{2}$ Rationalise and simplify $\frac{3\sqrt{2}+4}{5\sqrt{2}-7}$ Write the expression $\frac{3\sqrt{3}+7}{3\sqrt{3}-5}$ in the form $a + b\sqrt{3}$, where a and b are integers
2.10	Sketching of functions Sketch graphs of linear and quadratic functions	Graphs could be linear, quadratic or restricted to no more than 3 domains eg $y = x^2 - 5x + 6$ Label clearly any points of the intersection with the axes eg A function f(x) is defined as $f(x) = x^2 \quad 0 \leqslant x < 1$ $= 1 \quad 1 \leqslant x < 2$ $= 3 - x \quad 2 \leqslant x < 3$ Draw the graph of f(x) on the grid below for values of x from 0 to 3
2.11	Solution of linear and quadratic equations	Solutions of quadratics to include solution by factorisation, by graph, by completing the square or by formula Problems will be set in a variety of contexts, which result in the solution of linear or quadratic equations
2.12	Algebraic and graphical solution of simultaneous equations in two unknowns where the equations could both be linear or one linear and one second order	Solve $4x - 3y = 0$ and $6x + 15y = 13$ Solve $y = x + 2$ and $y^2 = 4x + 5$ Solve $y = x^2$ and $y - 5x = 6$
2.13	Solution of linear and quadratic inequalities	Solve $5(x - 7) > 2(x + 1)$ Solve $x^2 < 9$ Solve $2x^2 + 5x \leqslant 3$
2.14	Index laws, including fractional and negative indices	Express as a single power of x $\sqrt{x^{\frac{1}{2}} \times x^{\frac{7}{2}}}$ Express as a single power of x $\sqrt{\frac{x^{\frac{3}{2}} \times x^{\frac{7}{2}}}{x^2}}$ Solve $x^{-\frac{1}{2}} = 3$
2.15	Algebraic proof	Prove $(n + 5)^2 - (n + 3)^2$ is divisible by 4 for any integer value of n

2 Algebra

2.1	The basic processes of algebra	Knowledge and use of basic skills in manipulative algebra including use of the associative, commutative and distributive laws, are expected
2.2	Definition of a function	Notation f(x) will be used, eg $f(x) = x^2 - 9$
2.3	Domain and range of a function	Domain may be expressed as, for example, $x > 2$, or 'for all x, except $x = 0$' and range may be expressed as $f(x) > -1$
2.4	Expanding brackets and collecting like terms	Simplify $(y^2 - 2y + 3)(2y - 1) - 2(y^3 - 3y^2 + 4y - 2)$ Expand and simplify $(x + 2)^3$
2.5	Factorising	Factorise fully $(2x + 3)^2 - (2x - 5)^2$ Factorise $15x^2 - 34xy - 16y^2$ Factorise $x^4 - 25x^2$
2.6	Manipulation of rational expressions: Use of + − × ÷ for algebraic fractions with denominators being numeric, linear or quadratic	Simplify $\frac{x^2 + 3x - 10}{x^2 - 9} \div \frac{x + 5}{x^2 + 3x}$ Simplify $\frac{x^3 + 2x^2 + x}{x^2 + x}$ Simplify $\frac{5x^2 - 14x - 3}{4x^2 - 25} \div \frac{x - 3}{4x^2 + 10x}$
2.7	Use and manipulation of formulae and expressions	Rearrange $\frac{1}{f} = \frac{1}{u} + \frac{1}{v}$ to make v the subject
2.8	Use of the factor theorem for integer values of the variable, including cubics	Factorise $x^3 - 2x^2 - 5x + 6$ Show that $x - 1$ is a factor of $x^3 - 3x^2 - 4x + 6$ Solve $x^3 + x^2 - 10x + 8 = 0$
2.9	Completing the square	Work out the values of a, b and c such that $2x^2 + 6x + 7 \equiv a(x + b)^2 + c$

Sequences

2.16	nth terms of linear and quadratic sequences Limiting value of a sequence as $n \to \infty$	Write down the 10th term of the sequence $\frac{2n}{n+4}$ Write down the limiting value of $\frac{2n}{n+4}$ as $n \to \infty$

YEAR 11 CYCLE 1 STATISTICS

3 Co-ordinate Geometry (2 dimensions only)

The straight line

3.1	Know and use the definition of a gradient	
3.2	Know the relationship between the gradients of parallel and perpendicular lines	Show that A (0, 2), B (4, 6) and C (10, 0) form a right angled triangle
3.3	Use Pythagoras' theorem to calculate the distance between two points	
3.4	Use ratio to find the coordinates of a point on a line given the coordinates of two other points.	Including midpoint
3.5	The equation of a straight line in the forms $y = mx + c$ and $y - y_1 = m(x - x_1)$	Including interpretation of the gradient and y-intercept from the equation
3.6	Draw a straight line from given information	

The co-ordinate geometry of circles

3.7	Understand that the equation of a circle, centre (0, 0), radius r is $x^2 + y^2 = r^2$	Including writing down the equation of a circle given centre (0, 0) and radius The application of circle geometry facts where appropriate: eg the angle in a semi-circle is 90°, the perpendicular from the centre to a chord bisects the chord, the angle between tangent and radius is 90°
3.8	Understand that $(x - a)^2 + (y - b)^2 = r^2$ is the equation of a circle with centre (a, b) and radius r	Including writing down the equation of any circle given centre and radius

4 Calculus

Differentiation

4.1	Know that the gradient function $\frac{dy}{dx}$ gives the gradient of the curve and measures the rate of change of y with respect to x	
4.2	Know that the gradient of a function is the gradient of the tangent at that point	
4.3	Differentiation of kx^n where n is a positive integer or 0, and the sum of such functions	Including expressions which need to be simplified first Given $y = (3x + 2)(x - 3)$ work out $\frac{dy}{dx}$
4.4	The equation of a tangent and normal at any point on a curve	
4.5	Use of differentiation to find stationary points on a curve: maxima, minima and points of inflection	Understand the terms 'increasing function' and 'decreasing function' and applying them to determi the nature of stationary points
4.6	Sketch a curve with known stationary points	

5 Matrix Transformations

		All calculations will be restricted to 2 × 2 or 2 × 1 matrices
5.1	Multiplication of matrices	Multiplying a 2 × 2 matrix by a 2 × 2 matrix or by a 2 × 1 matrix Multiplication by a scalar
5.2	The identity matrix, $\mathbf{I}$	2 × 2 only
5.3	Transformations of the unit square in the $x - y$ plane	Representation by a 2 × 2 matrix Transformations restricted to rotations of 90°, 180° or 270° about the origin, reflections in a line through the origin (ie $x = 0$, $y = 0$, $y = x$, $y = -x$) and enlargements centred on the origin
5.4	Combination of transformations	Using matrix multiplications

6 Geometry

6.1	Knowledge of perimeter and area of rectangles, triangles and circles, including area of a triangle $= \frac{1}{2}ab\sin C$ and volume of solids is expected Knowledge of angle properties of parallel and intersecting lines, triangles, all special types of quadrilaterals and polygons	Understand and use circle theorems: Angle at the centre is twice the angle at the circumference; angles in the same segment are equal; opposite angles in cyclic quadrilateral add up to 180°; alternate segment theorem; the theorems listed in the notes of section 3.7

Geometric proof

6.2	Understand and construct geometrical proofs using formal arguments	The use of theorems listed in the notes of 3.7 and 6.1

Trigonometry in triangles

6.3	Sine and cosine rules in scalene triangles	Knowledge and use of trigonometry to solve right angled triangles is expected

Pythagoras' theorem

6.4	Use of Pythagoras' theorem in 2D and 3D	Recognise Pythagorean triples; 3, 4, 5; 5, 12, 13; 8, 15, 17; 7, 24, 25 and simple multiples of these
6.5	Be able to apply trigonometry and Pythagoras' theorem to 2 and 3 dimensional problems	Including the angle between a line and a plane and the angle between two planes

Ratios of angles and their graphs

6.6	Sketch and use graphs of $y = \sin x$, $y = \cos x$ and $y = \tan x$ for $0° \leqslant x \leqslant 360°$	
6.7	Be able to use the definitions $\sin\theta$, $\cos\theta$ and $\tan\theta$ for any positive angle up to 360° (measured in degrees only)	Angles measured anticlockwise will be taken as positive
6.8	Knowledge and use of 30°, 60°, 90° triangles and 45°, 45°, 90° triangles	The use of the ratios $1:\sqrt{3}:2$ and $1:1:\sqrt{2}$
6.9	Use of $\tan\theta = \frac{\sin\theta}{\cos\theta}$ and $\sin^2\theta + \cos^2\theta = 1$	Including expressions to be simplified, proofs of identities and equations solved
6.10	Solution of simple trigonometric equations in given intervals	Equations will be restricted to single angles: $\sin x = 0.5$; $\sqrt{2}\sin x = \cos x$ for $0° \leqslant x \leqslant 360°$; $\sin^2 x = \frac{1}{4}$ for $0° \leqslant x \leqslant 360°$

YEAR 11 CYCLE 1 MUSIC

KS4 Key Vocabulary

Music

Term	Meaning
Conjuct	When notes in a melodic phrase move up and down in steps.
Disjunct	When melodic phrases contain leaps between the notes.
Diatonic	Notes used within a particular key/scale E.g. C Major uses the notes C D E F G A B C.
Atonal	Music that lacks any particular key or mode.
Dissonance	When notes clash together to make an unpleasant sound.
Syncopation/Syncopated	Playing sounds in-between the main beats of the music.
Off Beat	Not playing on the main beats of the bar. Emphasising beats 2 and 4.
Back Beat	A steady rhythm stressing the 2nd and 4th beats of a four-beat measure.
Four on the floor	A 4-beat rhythm in which the bass drum is hit on every beat.
Homophonic	Texture with just melody and chords.
Polyphonic	Texture where there are multiple melodies/musical ideas played at the same time.
Strophic	Verse-Chorus song structure.
Polyrhythm	Many rhythms that are played together at the same time.
Cross Rhythm	When two or more conflicting rhythms are played together.
Bubble Rhythm	Often heard in Reggae on the organ where chords tend to be played in between the main beats on the 'and'.
Power chords	A chord is made of two different notes using notes 1 and 5 (guitar).
Drop Tuning	When the bottom E string is changed to a different note. E.g. Drop D or Drop C.

YEAR 11 CYCLE 1 MUSIC

KS4 Key Vocabulary

Term	Meaning
Distortion	Effect used on the guitar to create a 'Fuzzy' 'Growly' sound.
Reverb	An audio effect that causes the sound to linger for longer.
Quantize	DAW - Moving notes recorded into a MIDI sequencer or DAW in line with the "grid to be more in time.
Major	Happy sounding key or chord.
Minor	Sad sound key or chord.
Improvisation	Composing or creating music on the spot, often used in Jazz and Blues. Melodies will fit with particular keys or modes.
Riff	A short repeated melodic or rhythmic idea.
Ostinato	A short musical idea that is repeated continually throughout a piece of music.
Seventh Chords	A triad chord with the addition of the 7th Note.
Loops	Repeated section of music material. Often used in DAWs.
Leitmotif	A short repeated musical idea that represents a main character or idea.
Mickey-Mousing	Music used to imitate the action happening on screen.
Foley	Sound effects added to create particular sounds for a movie or game. E.g. Glass breaking or walking on snow.

Compositional features	Sonic Feature
Melody	Instrumentation
Harmony	Timbre
Tonality	Texture
Rhythm	Production
Structure	