

Year 10 Knowledge Organiser Term 1



Choose any of the following activities to complete your homework

	LOOK, COVER, WRITE, CHECK	DEFINITIONS TO KEY WORDS	FLASHCARDS	PICTURES
STAGE 1	Look at & study an area of your knowledge organiser 	Write down the key words & definitions 	Write key words, dates/formulae, equations/quotes on one side & answers on the other 	Draw pictures/diagrams/ cartoon strips 
STAGE 2	Cover up your knowledge organiser and write everything you remember 	Cover up the definitions. How many can you remember? Repeat. 	Include pictures or diagrams if it helps. Read through them. 	Label your pictures/diagrams/ cartoon strips 
STAGE 3	Check. Correct mistakes in green and add anything you missed. Repeat 	Check. Correct mistakes in green pen. Which ones do you find hard to remember? 	Test yourself and get someone to test you. 	Explain out loud to yourself or family/friend what your images show 
	SELF QUIZZING	MINDMAPS	PAIRED RETRIEVAL	SPEAK, COVER, WRITE, CHECK
STAGE 1	Use your knowledge organiser to create quiz questions. 	Create a mindmap of everything you can remember from your knowledge organiser 	Give a family member/friend the knowledge organiser to hold 	Read out loud the information from the knowledge organiser several times. 
STAGE 2	Write down the answers to your quiz 	Check your knowledge organiser & use a green pen to make any corrections. 	Get them to test you using the knowledge organiser 	Cover up your knowledge organiser and write everything you remember 
STAGE 3	Keep self-quizzing until you get all the answers correct 	Add additional information to your mindmap or make connections to other knowledge 	Write down your answers to their questions 	Check. Correct mistakes in green and add anything you missed. Repeat. 

Dual coding example



LEARN TO STUDY USING...

Dual Coding

COMBINE WORDS AND VISUALS

LEARNINGSIENTISTS.ORG



HOW TO DO IT



Look at your class materials and find visuals. Look over the visuals and compare to the words.



Look at visuals, and explain in your own words what they mean.



Take information that you are trying to learn, and draw visuals to go along with it.

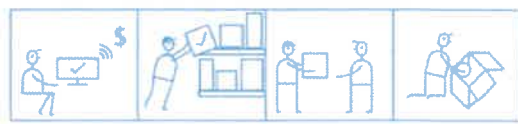
HOLD ON!

Try to come up with different ways to represent the information visually, for example an infographic, a timeline, a cartoon strip, or a diagram of parts that work together.

INFOGRAPHIC



CARTOON STRIP



DIAGRAM



GRAPHIC ORGANIZER



TIMELINE



Work your way up to drawing what you know from memory.



RESEARCH

Read more about dual coding as a study strategy

Mayer, R. E., & Anderson, R. B. (1992). The instructive animation: Helping students build connections between words and pictures in multimedia learning. *Journal of Educational Psychology*, 4, 444-452.

Elaboration



LEARNINGSOCIETISTS.ORG

LEARN TO STUDY USING...

Elaboration

EXPLAIN AND DESCRIBE IDEAS WITH MANY DETAILS

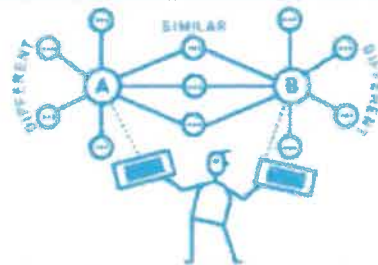


HOW TO DO IT

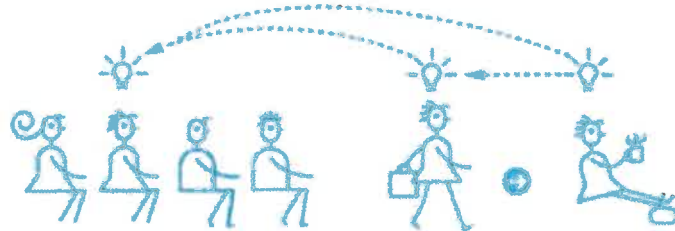
Ask yourself questions while you are studying about how things work and why, and then find the answers in your class materials and discuss them with your classmates.



As you elaborate, make connections between different ideas to explain how they work together. Take two ideas and think of ways they are similar and different.



Describe how the ideas you are studying apply to your own experiences or memories. As you go through your day, make connections to the ideas you are learning in class.



HOLD ON!



Make sure the way you are explaining and describing an idea is accurate. Don't overextend the elaborations, and always check your class materials or ask your teacher.



Work your way up so that you can describe and explain without looking at your class materials.

RESEARCH

Read more about
elaboration
as a study strategy

McDaniel, M. A., & Donnelly, C. M. (1996). Learning with analogy and elaborative interrogation. *Journal of Educational Psychology, 88*, 508-519.

Wong, B. Y. L. (1985). Self-questioning instructional research: A review. *Review of Educational Research, 55*, 227-268.



LEARN TO STUDY USING...

Interleaving

SWITCH BETWEEN IDEAS WHILE YOU STUDY

LEARNINGSOCIETYS.ORG



HOW TO DO IT

Switch between ideas during a study session. Don't study one idea for too long.



Go back over the ideas again in different orders to strengthen your understanding.

TOPICS
A B C



STUDY
SESSION
1

TOPICS
C B A



STUDY
SESSION
2

TOPICS
A C B



STUDY
SESSION
3



Make links between different ideas as you switch between them.



HOLD ON!



While it's good to switch between ideas, don't switch too often, or spend too little time on any one idea; you need to make sure you understand them.



Interleaving will feel harder than studying the same thing for a long time. But don't worry - this is actually helpful to your learning!



RESEARCH

Read more about
interleaving
as a study strategy

Rohrer, D. (2012). Interleaving helps students distinguish among similar concepts. *Educational Psychology Review*, 24, 355-367.

GCSE FINE ART

THE SURREAL AND SUBLIME

Assessment objective 1

Develop ideas through investigations informed by contextual and other sources, demonstrating analytical and cultural understanding.

- Mind-map to identify subthemes
- Research 3 artists' work who interest you and inspire your ideas
- Write research in your own words
- Copy examples of the artists' work

Artist Research

- 1. ARTIST NAME**
On the page you should write down the artist's name. This could either be hand written in a suitable lettering or printed from the computer.
- 2. IMAGES**
Print and stick down images of your artist's work. Make sure they are high quality and not pixelated.
- 3. ANALYSIS**
For each artist you must analyse at least one piece of their work in depth. Use the Analysing Artists prompt sheets to guide you with what to write. This can either be NEATLY hand written or typed and printed.
- 4. STUDIES**
Complete a study for each artist you research. This could be a copy/study of a section of the artists work OR your own interpretation in the style of the artists work. If you have time it would be beneficial to do both!



General information about the artist: who are they? When did they work? What media do they work in? Are they well known for their work, if so why? Are they part of a genre of art or art movement? Is there anything significant about their life that might have inspired their work?

GRADE 9 COURSEWORK SKETCHBOOK

Assessment objective 3

Record ideas, observations and insights relevant to your intentions in visual and/or other forms.

- Take at least 30 photographs of your idea/subject
- Produce at least 8 studies from these photographs in different media
- *Idea:* Photocopy one of your drawings and use oil pastels over the top
- Link these studies to artists' styles and/or techniques
- Add notes/annotations to all of your studies

AO2

EXPERIMENT WITH A RANGE OF TECHNIQUES TO ARTISTS' THEMES AND MEDIA

ALSO AVAILABLE IN: TEXTILES, WATERCOLOUR, CLAY, OIL PASTEL, PEN AND INK

AO3

IDEAS LINKING TO OBSERVATIONAL ARTISTS' WORK DRAWINGS PLANS LINKING TOGETHER IN A RANGE OF EXPLANATIONS DIFFERENT MEDIA ANNOTATION

Assessment objective 2

Refine ideas through experimenting and selecting appropriate resources, media, materials, techniques and processes.

- Create 5 studies from secondary sources
- Create 5 studies from primary sources
- Use at least 3 different media

1

Describe
your artwork.

Some questions to consider: What does your artwork look like? What is the subject matter? What is the title of your work? What elements or principles are most obvious in your work?

2

How did you create your art?

Some questions to consider: What media is your artwork made from? What tools, techniques or processes did you use to create your artwork?

3

What is the big idea behind your artwork?

Some questions to consider: What or who inspired your artwork? Does your work express a personal or social issue? What emotions did you try to show in your artwork?

4

What were your goals for this artwork?

Some questions to consider: What are your goals as an artist? Did this piece help you reach your goals? Why or why not?

5

What are your overall thoughts of your artwork?

Some questions to consider: What did you learn in creating this artwork? Is this the final piece what you imagined? How so? How will this piece influence your future artworks?

Assessment objective 4

Present a personal, informed and meaningful response demonstrating analytical and critical understanding, realising intentions and, where appropriate, making connections between visual, written, oral or other elements.

- Show evidence for 2 different ideas of possible outcomes. Explain both ideas.
- Your final idea must link to an artists' work in some way.
- Create a final outcome using media you are confident with and it must show at least 10 hours worth of work.

Surreal

- Digital distortion (*Francis Bacon*)
- Metamorphosis (*Andrea Matus*)
- Divide and colour (*Robert Delaunay*)
- Relief sculpture & lino print (*Louise Nevelson*)

Sublime

- Natural forms
- Rural and urban landscapes (*Ian Murphy & Kurt Jackson*)

Project overview

AO1

Assessment Objective 1

Annotations



AO1 is about developing ideas from a starting point to a final piece. This is done through A-mapping, sketches and studies related to the work of other artists, designers and craftspeople. You need to analyse and understand these contextual sources, and develop your ideas in a personal way.

You can begin to develop your ideas once you have collected your source materials. You might have some general concepts about what you want to do, but your ideas will change and develop as you investigate your source material. You'll need to do more research and find new source materials as your work develops.



Artists Research

Primary Drawings Observations

AO3

Assessment Objective 3 is about recording your ideas, observations and insights, which can be in visual, written and other forms. You should work from a range of experiences and stimulus materials, as each of these could lead you to different ways of developing your ideas. You should reflect upon your work, and consider what you have achieved at each stage and what you will do next.



You need to demonstrate that you understand how artists and designers work, and relate this to the ideas that you record. This may be done using images, different media, sketches, diagrams and studies. You should demonstrate connections between your own recordings and the work of other artists and designers by carefully organising these observations in your sketchbook.

AO2

Assessment Objective 2

Experimenting with media



Cut, layer and experiment with photographs and papers.

Using artists inspiration

Experiments, practical samples and studies in different media demonstrate that you have developed and communicated your ideas through practical investigation. This will equip you with a working vocabulary of resources, practical knowledge and technical skills and enable you to make an informed choice when selecting materials and approaches for your theme.



Assessment Objective 4 is about presenting a personal, informed and meaningful response, from your initial research through to the final piece. You need to demonstrate analytical and critical understanding as you respond to your theme, by practising your skills in using different media and processes you are able to develop the ways in which you convey your ideas and responses - your personal visual language.



AO4

You must show that you have understood the theme, and that you have an understanding of the way artists, designers or craftspeople work. You need to demonstrate this understanding in your research and development studies, as well as in your final piece.



Business

NCFE Level1/2 Technical Award in Business and Enterprise

Unit 01 Introduction to Business and Enterprise (H/616/8937)-40% of your GCSE



Learning Outcome 1: Understand entrepreneurship, business organisation and the importance of stakeholders: Entrepreneur

1.1.1 Being an entrepreneur

You will know and understand what it means to be an entrepreneur and what motivates them, including:

Definition of an entrepreneur

Entrepreneurial motivators – financial, personal, social

1.1.2 Entrepreneurial characteristics and skills

- Confident
- Motivated
- Determined
- Results focused
- Initiative
- Decision making
- Analytical ability
- Communication



Entrepreneur

The Motives of Entrepreneurs

- Financial**
 - Generate a profit
 - Provide employment for self
 - Financial security for self and family
- Non-financial**
 - Self satisfaction/challenge
 - Be own boss
 - Fill a gap in the market
 - Create employment for others
- Social/community**
 - Social enterprises are those whose prime objective is to do good in society rather than to make a profit
 - Surplus revenue is used to support a specific cause e.g. a children's charity or community group



Famous entrepreneurs such as Richard Branson (Virgin), Bill Gates (Microsoft), Steve Jobs (Apple) and Lord Alan Sugar (Amstrad) are great examples of how one business idea can grow into a huge success with the help of the right entrepreneurial skills and characteristics.

Business Enterprise

Definition: The formation of a new business or development of a new good or service to be introduced to the market.

Entrepreneur

Definition: A person who sets up a business by taking on the financial risks in the hope of making a profit.

They are responsible for bringing together the other factors of production, land, labour and capital, to create a business.

This involves:

- Initiative → Taking action
- Innovation → Idea for a new good or service
- Identifying opportunities → Spotting a gap in the market
- Organising resources → Planning and using a range of resources e.g. raising

Business aims and objectives

Aims and Objectives

Aims: Is the long term objective of the business. Its aim might be to become the biggest business in its sector.

Aims should be SMART:

Aims should be SMART:



Specific – Measurable – Attainable – Realistic – Time Manageable

Objectives: Is a short or medium term target of a business needed to reach its aim. An objective might be to increase sales by 20% in the next 5 years.

Aims of For Profit /Financial :

1. Break even point
2. Profitability
3. Increasing revenue
4. Profit maximisation

Aims of Not-For Profit/non-financial:

1. Customer satisfaction
2. Expansion
3. Employee engagement/satisfaction
4. Diversification
5. Ethical/corporate responsibility

Business Legal structures

1. Sole Trader

Definition: Businesses owned by one person who has unlimited liability. Other people can be employed but there is only one owner.

Advantages:

- ✓ Profit → can keep all profit / no need to share
- ✓ Making decisions → without consulting others / will be speedy → e.g. of decision
- ✓ Own boss → free to choose / any example
- ✓ Independence → can work at own pace etc.
- ✓ Easy to set up → few formalities → therefore cheaper to set up
- ✓ Have a job → may not be able to find one elsewhere

Disadvantages:

- ✗ Unlimited liability → responsible for debts of the business
- ✗ More responsibility → relies heavily on their own ability to make decisions → may work long hours and have limited holidays, as there is no one to cover them

- ✗ Limited sources of resources

Unlimited Liability

Definition: Means that the owners of a business are responsible for all of the debts of a business. Personal belongings may need to be given up to pay the debts of the business.

2. Partnership

- This is a business which is owned by **two or more people**. These people all share the profits and responsibility for managing the business.
- When a partnership business is set up, it is a good idea to draw up a **deed of partnership**. This will be a written record of all of the agreed terms of the partnership (who does what, who owns what, etc) and can be very useful to resolve any disputes that may arise.
- Each partner is liable for their own debts as well as any partners' debts. As with sole traders, this liability is **unlimited**, meaning that the partners must take whatever action is required in order to cover the debts (such as selling possessions, using personal savings, etc)

3. Private limited company (Ltd)

It can also restrict what shareholders are able to do with their shares .

Shareholders in a private limited company have **limited liability** should the business fall into debt or fail.

This means that their liability is limited to the value of their investment in the company, and does not extend to their personal assets.

4. A public limited company ('PLC')

It is a company that is able to offer its shares to the public. Advantages of a PLC

- Better access to capital – i.e. raising money from existing and new investors
- Liquidity – shareholders are able to buy and sell their shares.
- 5. How about Social enterprise and co-operations? How are they formed?

Organisational structure

Subject Specific Vocabulary

Centralisation – where major decisions are made by one (or a few) senior people in an organisation.

Chain of command – the links between directors and workers in an organisational hierarchy.

Decentralisation – where decision making is shared between different people in an organisation.

Delayering – removal of layers of management in an organisational structure.

Delegation – giving responsibilities to another person, usually more junior in the organisation.

Layers of hierarchy – the different levels of authority in a business.

Line manager – an employee's immediate boss.

Span of control – the number of workers that report to one manager in a hierarchy.

Key Questions for this Topic

Why do businesses have internal organisational structures?

- So people know their job and responsibilities throughout the business
- So people know who does what in the business

What is an organisational structure?

- Shows how employees are organised in a business.
- Businesses have hierarchies – layers of employees with different responsibilities

What are the characteristics of decentralisation?

- Shared out authority or decision making e.g. to regional managers (less pressure on senior managers)
- Regional managers should have expert knowledge in their area (more motivating if authority is delegated)
- Quick decision making as regional managers have authority to make decisions
- Inconsistencies can develop between departments/regions (aims and goals need to be understood by all employees)
- Training may be needed for those with decentralised responsibilities

How can businesses decide on the most appropriate structure?

- Size of the business – small businesses may have flat centralised structures
- Cost – taller structures cost more money as there are lots of managers.
- Skills of the workforce – some need less supervision, some need more
- Skills of the managers – some may not be skilled in managing large teams

How can people in businesses communicate?

- Meetings
- Emails
- Video-conferencing
- Intranets
- Telephone calls
- Letters

Remember that people in businesses communicate within the business (up and down and sideways), they communicate with customers, suppliers and other stakeholders too.

- Usually shown as an Organisational Chart/Tree
- Directors at the top, then managers, then supervisors and then the workers or operatives
- The chain from top to bottom is called the chain of command and responsibility is delegated passed on to the people below. Organisational structures show how many workers report to each manager – i.e. the span of control.

What are the characteristics of a tall structure?

- Long chain of command – communication can be slow and difficult. Face to face communication is difficult – emails can help when passing on information.
- More layers of management – good for motivation and career progression of employees
- Narrow span of control – employees are monitored closely

What are the characteristics of a flat structure?

- Short chain of command – communications are quicker, fewer layers to pass through
- Managers have wide span of control – can be difficult to manage all workers
- Verbal communications can still be difficult – emails help.

What are the characteristics of centralisation?

- Major decisions made at the top – quick decision making possible but may take time to filter down to employees
- Managers at the top – usually experienced and policies should be the same throughout the business.
- Gives power to the top – may be out of touch/lack expertise and make bad decisions

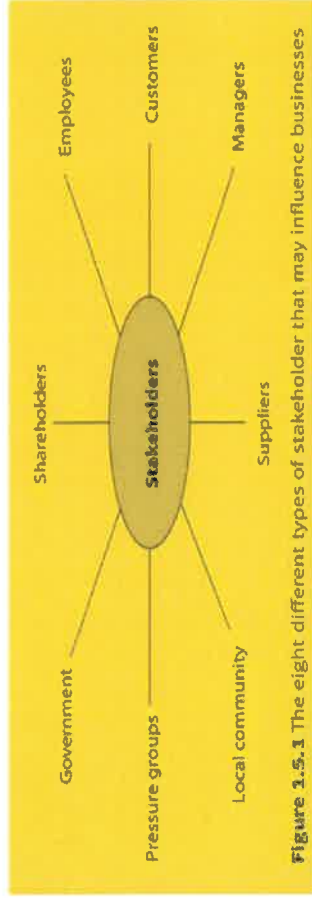


Figure 1.5.1 The eight different types of stakeholder that may influence businesses

Different types of technology used by business

The influence of technology on most businesses is very strong. This is particularly true of businesses that are able to operate worldwide thanks to the internet. There are many different technologies that businesses can use, but the most significant are:

- e-commerce
- social media
- digital communication
- payment systems.

How technology influences business activity

As you have seen, technology has a huge impact on the way in which businesses trade with each other and with customers. There are three main influences that technology has on the activities of a businesses:

- influence on sales
- influence on costs
- influence on the marketing mix.

The purpose of legislation

There are lots of reasons why legislation exists in the UK. However, when thinking about businesses, there are two key purposes of legislation:

- protecting the rights of consumers through consumer law
- protecting the rights of employees and employers through employment law.

Do you know what a stakeholder is? Examples of external/internal?

By working through you should be able to explain:

1. The characteristics, skills and motivations of an entrepreneur
2. Financial and non-financial aims and objectives that a business might have
3. Different legal structures of a business
4. The features of different organisational structures
5. How and why a business may restructure its organisation
6. Internal and external stakeholders of a business
7. The advantages of stakeholder engagement

The impact of legislation on businesses

Each year, lots of new legislation is approved and businesses need to make sure that they follow it. Businesses need to keep up to date with changes in legislation and ensure that the way in which they operate complies with the law. This has two main implications: the cost of adapting the business to comply with the law and the consequences of meeting or not meeting the business's legal obligations.

Stakeholder	Impacts on business activity
Shareholders (owners)	• Set the aims and strategy for the business, including how it behaves. • Provide funding and investment to start up and expand a business.
Employees	• Provide good service, which usually results in higher sales and profits (or have a negative impact on a business's profits and reputation if they do not do their jobs well).
Customers	• Buy products and services. • Make recommendations for how to improve products and services. • Recommend the business to friends and on social media.
Managers	• Manage employees who do the day to day work of the business • Communicate employees' needs to senior management. • Communicate the business's needs to employees.
Suppliers	• Provide the business with the materials it needs for its products or services. • Affect the amount of products or services that can be produced and sold (for example, if a supplier cannot provide raw materials on time, production may be stopped), which can have an impact on the business's sales and reputation.
Local community	• Support their local business by buying its products or services. • Object to the business if it has a negative impact on the local community or local environment.
Pressure groups	• Change the business's practices, such as its delivery times or the packaging it uses. • Improve employees' conditions, such as health and safety in the workplace or fair wages. • Influence customers' opinions of the business and their buying habits.
Government	• Changes the amount of tax that the business has to pay. • Passes new laws relating to the business and its industry. • Promotes different types of business activity by providing special funding for particular activities. For example, the availability of grants for wind farms has increased the number of businesses installing and operating wind farms.

Table 1.5.1 Examples of stakeholders' impact on business activity

Positive consequences	Negative consequences
• The business has a positive reputation. • Customers and other stakeholders, such as employees, feel that they are being treated fairly by the business. • Higher sales due to customers being attracted to buy from the business because of its good reputation. • Better candidates for jobs with the business, because people are attracted to work for the business.	• The business may be taken to court, resulting in fines or even prison sentences for members of staff, including the owners. • Negative media stories about the business, leading to a bad reputation. • A customer or employee is injured, suffers ill-health or is even killed as a result of the business's failure to meet legal obligations. • The business is closed down temporarily or permanently.

Table 1.5.2 The positive and negative consequences of meeting or not meeting legal obligations

Useful websites:

- <http://www.iachieve.org.uk/>
- <https://www.mbankool.com/marketing-mix/services/16731-tesco.html>
- <https://research-methodology.net/tesco-marketing-mix/>
- <http://businesscasestudies.co.uk/>
- <https://www.bbc.co.uk/education/subjects/zpsvr82>
- <http://bizkids.com/business-resources>
- <http://www.beebusinessbee.co.uk/index.php/business-topics>
- <https://www.princes-trust.org.uk/help-for-young-people/tools-resources/business-tools/business-plans>
- <https://disneyinstitute.com/>

KSL DESIGN

AND TECHNOLOGY

2 point perspective



Tools and Equipment

Measuring and marking

Steel rule		An accurate tool for measuring and marking out
Try square		A tool used to check right angles on wood or plastic
Template		A template is a tool used to mark out shapes repeatedly
Jig		A tool used to control the location and/or motion of another tool

Shaping and finishing

Metal file		Used to shape or smooth wood, metal or plastic
Glass paper		An abrasive paper used to smooth the surface or edges of wood
Disc sander		A machine used to smooth the edges of materials

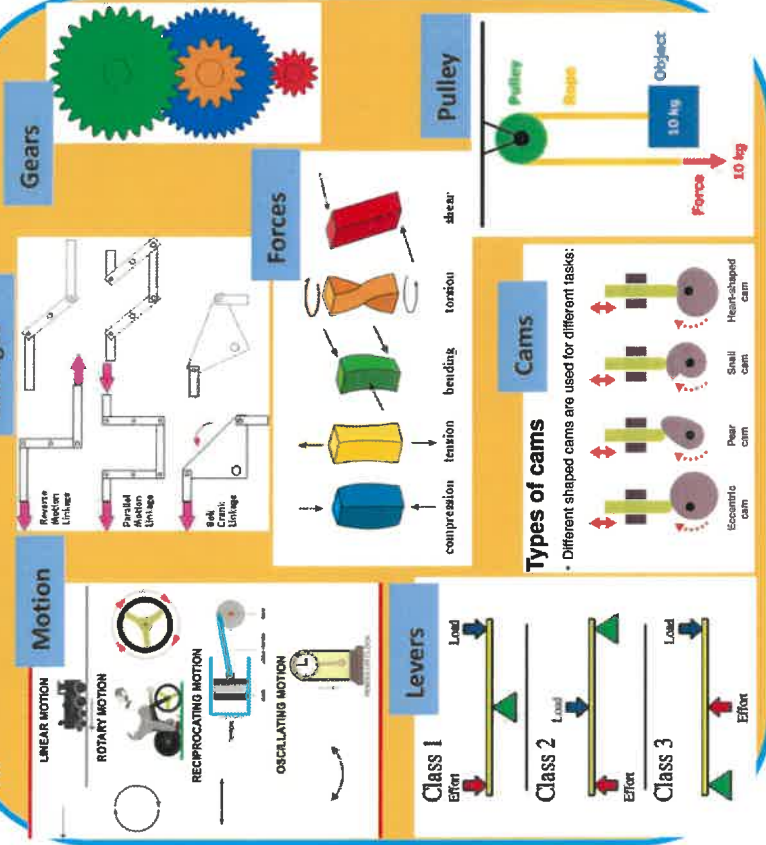
Traditional wood joints:

Butt Joint
Lap / Rebate Joint
Finger Joint
Dovetail Joint
Mitre Joint

Maths in DT:

Multiplication
Divide
Add / Subtract
Measurement conversion
Ratios
Percentages
Surface area

Mechanical Devices



What is good design?

Clear ideas
Annotations
Measurements
Content
Presentation
Balance

Keywords

Research
Design
Evaluation
Wood joint
Mechanical
Pulley
Linkage
Lever
Motion
Force

Cutting

Tenon saw		A hand saw with a stiff back used to cut straight lines in wood – back saw action
Coping saw		A hand saw used to cut complex shapes in wood and plastic
Scroll saw		A machine saw used to cut complex shapes in wood and plastic
Bench hook		Held against the front edge of a bench or table to support work
Pillar drill		A machine used to make holes in materials
Chisel		Used for carving or cutting a hard material such as wood, stone, or metal by hand
Laser cutter		CAM: Laser cutting is the use of a high-powered laser to cut, etch and engrave your material

Health and Safety in DT:

- Listen to your teacher's instructions
- Always wear an apron
- Long hair should be tied back
- Don't use equipment you are not trained on
- Always stand up during practical lessons
- When using machines, always wear safety glasses
- Only use the stop button in an emergency
- Work quietly and be sensible and careful at all times



AIMS at a glance- to learn about

- Composition of food
- Preparation, cooking and safe use of food
- The science of ingredients
- Food sources and origins
- Cultures
- Food choices and healthy well being
- Food choices and the global environment
- Being an informed food consumer

NEA and WRITTEN ASSESSMENT

Food investigation Task – 20%

Food preparation task – 30%

Written assessment – 50%

PRACTICAL SKILLS

- Skill 1 - General practical skills
- Skill 2 – Knife skills
- Skill 3 – Preparing fruit and veg
- Skill 4 – Use of the cooker
- Skill 5 – Use of equipment
- Skill 6 – Cooking methods
- Skill 7 – Prepare, combine and shape
- Skill 8 – Sauce making
- Skill 9 – Tenderise and marinate
- Skill 10 – Dough
- Skill 11 – Raising agents
- Skill 12 – Setting mixtures

GCSE FOOD PREPARATION AND NUTRITION- KNOWLEDGE ORGANISER

KEY WORDS

- ANALYSE
- HYPOTHESIS
- CONTROL
- MENU
- LIFESTAGE
- CULINARY TRADITIONS
- TIME PLAN
- DOVETAIL
- MISE en PLACE

TOP TIPS FOR COMPLETING NEA WORK

- Plan your work carefully
- Include aims and conclusions
- Explain and justify decisions
- Research must be concise
- Show case your practical skills
- Use subject specific terminology
- Nutritional knowledge must be evident

COURSE CONTENT

- Food nutrition and health
- Nutritional needs and health
- Food science
- Food safety
- Functional and Chemical properties of food
- Principles of food safety
- Food choices
- Cuisines
- Sensory evaluation
- Food provenance

A01	Develop ideas through investigations informed by contextual and other sources, demonstrating analytical and cultural understanding.
A02	Refine ideas through experimenting and selecting appropriate resources, media, materials, techniques and processes.
A03	Record ideas, observations and insights relevant to their intentions in visual and/or other forms.
A04	Present a personal, informed and meaningful response demonstrating analytical and critical understanding, realising intentions and, where appropriate, making connections between visual, written, oral or other elements.

Task One- A01/A02

Present a moodboard bursting with images of Wearable Art

You can use materials like: magazines, posters, leaflets, books and newspapers to find imagery as well as the internet. Fill the entire page with imagery.



Task Two A03

Create a range of designs linked to your culture of possible 'wearable Art' designs.

Link to inspirational Artists that have influenced your mood board from Task One

Task Three A04

Produce your outcome

Make your 'wearable Art piece'.

Consider the range of construction and surface decoration techniques that you have explored in class.

GCSE TEXTILES CULTURES

ANALYSING ARTIST'S WORK

Name, Title, Date & Image

- 1. INTRODUCTION**
Describe the Artist. Consider the following:
 - What was the artist's name?
 - What was the artist's nationality?
 - What was the artist's date of birth and death?
 - What was the artist's main style?
 - What was the artist's main subject matter?
 - What was the artist's main medium?
- 2. CONTEXT**
Consider the artist's life and work in the context of their time and place.
 - What was the artist's life like?
 - What was the artist's work like?
 - What was the artist's time and place like?
 - What was the artist's main style?
 - What was the artist's main subject matter?
 - What was the artist's main medium?
- 3. CONTENT**
Consider the artist's work in the context of their time and place.
 - What was the artist's life like?
 - What was the artist's work like?
 - What was the artist's time and place like?
 - What was the artist's main style?
 - What was the artist's main subject matter?
 - What was the artist's main medium?
- 4. MOOD**
Describe the mood of the artwork. Consider the following:
 - What was the artist's mood?
 - What was the artist's mood like?
 - What was the artist's mood like?
 - What was the artist's mood like?
 - What was the artist's mood like?
 - What was the artist's mood like?
- 5. PROCESS**
Explain the artist's process. Consider the following:
 - What was the artist's process?
 - What was the artist's process like?
 - What was the artist's process like?
 - What was the artist's process like?
 - What was the artist's process like?
 - What was the artist's process like?
- 6. THE FORMAL ELEMENTS**
Describe the formal elements of the artwork. Consider the following:
 - Line
 - Shape
 - Form
 - Colour
 - Texture
 - Pattern
 - Space
- 7. CONNECTIONS**
Consider the artist's work in the context of their time and place.
 - What was the artist's life like?
 - What was the artist's work like?
 - What was the artist's time and place like?
 - What was the artist's main style?
 - What was the artist's main subject matter?
 - What was the artist's main medium?
- 8. EVALUATE (for Art)**
Evaluate the artist's work in the context of their time and place.
 - What was the artist's life like?
 - What was the artist's work like?
 - What was the artist's time and place like?
 - What was the artist's main style?
 - What was the artist's main subject matter?
 - What was the artist's main medium?

Knowledge Organiser 11 : Programming Fundamentals 1

1. Key Terms		5. The Common Boolean Operators	
Variable	A value stored in memory that can change while the program is running		
Constant	A value that does not change while the program is running, and is assigned when the program is designed		
Operator	A character that represents an action, e.g. "+" is a mathematical Operator		
Assignment	Giving a variable or constant a value		
Casting	Converting a variable from one data type to another		
Input	A value that is entered into the program after the program has started running		
Output	A value that produced by the program and either saved or displayed to the user		
2. Correct Use of Data Types		6. Basic String Manipulation (general)	
Integer	A positive or negative whole number used when arithmetic will be required	string.length	Obtains the length of the string in characters
Real / Float	A positive or negative decimal number	string.upper	Converts the string to uppercase
Character	A single alphanumeric	string.lower	Converts the string to lowercase
String	Multiple characters joined together [n.b. use this for credit card numbers]	string.left(n)	Gets the left-most n characters of the string
Others	Some languages have others, e.g. date, picture...	string.right(n)	Gets the right-most n characters of the string
3. The Three Basic Programming Constructs		string.substring(a,b)	Gets b characters of the string starting at position a
Sequence	Executing one instruction after another	ASC(char)	Returns the numerical ASCII value of char
Selection	Program branching depending on a condition	Note : this is NOT the way things are done in any particular programming language. In particular Python does things differently	
Iteration	sometimes called looping, is repeating sections of code. Condition controlled or count controlled	7. Basic File Handling Operations (OCR Reference Language)	
4. Common Arithmetic Operators		myFile=open("...")	Open a file
+	Addition	myFile.close()	Close a file
-	Subtraction	myFile.readLine()	Read a line from a file
*	Multiplication	myFile.writeLine()	Write a line to a file
/	Division	myFile=("...")	Create a new file
^	Exponentiation	string.substring(a,b)	Gets b characters of the string starting at position a
MOD	Modulus	A Workflow	myFile = open ("sample.txt") while NOT myFile.eofOfFile() print (myFile.readLine()) endwhile myFile.write("Hello") myFile.close()
5. Common Comparison Operators		Note : this is NOT the way things are done in any particular programming language. In particular Python does things differently	
==		Is equal to	
!=		Is not equal to	
<		Is lesser than	
>		Is greater than	
<=		Is lesser than or equal to	
>=		Is greater than or equal to	

Knowledge Organiser 12 : Programming Fundamentals 2

1. Storing Data in Records

In Text Files	• Stored on the secondary storage (hard disk/SSD/flash). • Used to store data when the application is closed. • Useful for small volumes of data. E.g. configuration files. • Each entry is stored on a new line or separated with an identifier such as a comma or tab. • Can require a linear search to find/read data which is slow (if there is no order to the data or record structure). • Structured text files E.g. CSV, XML & JSON are popular for storing and exchanging data between applications
In Arrays and Lists	• Stored in RAM. • Used to store data when a program is running. • Useful for small volumes of data an algorithm is using. • Can be single or multi-dimensional allowing for tables of data to be stored. • Uses indexes to refer to data items. • Efficient algorithms or linear searches can be used to find data
In Databases	• Often stored on remote servers. • Often used to store data shared by many users, e.g. ticket booking system. • Data is stored in records and fields. • Uses advanced data structures to store data efficiently. • Uses very efficient algorithms to search and sort data executed on the servers. • More secure than text files. • The order of the fields in the database is independent of the code
Record Structure	• A collection of related fields. • A field is a variable. • Each field in a record can have a different data type. • Note the dot syntax when using records: record<dot>Field e.g. car1.Make

2. SQL

SELECT	which fields to be returned. * can be used to indicate all fields
FROM	which table. Databases can have more than one table, each with their own unique name
WHERE	records meet a condition. LIKE and % can be used as a wildcard
Example	SELECT name, age, iq FROM person WHERE name LIKE 'FIS%'

3. Arrays

Definition	An array is a series of memory locations - or 'boxes' - each of which holds a single item of data, but with each box sharing the same name. All data in an array must be of the same data type
Use	• Indexes usually start at 0 for the first data item (known zero indexed). • Arrays may be single or multiple dimensions. • Visualise dimensions as a column (single dimension) or table (two dimension) • In Memory two dimensional arrays are still stored in a linear fashion

4. Sub programs

Why Use them	• Larger programs are developed as a set of sub-programs called subroutines. • Structuring code into sub-programs makes the code easier to read and debug. • Each sub-program can easily be tested. • Sub-programs can be saved into libraries and reused in other programs
Functions	Functions return values and create reusable program components.
Procedures	Procedures create a modular structure to a program making it easier to read. They do not return values

5. Random Numbers

Deterministic	Programs that run on computer systems are deterministic - with exactly the same inputs they should produce exactly the same outputs.
Real World	Randomness is easy to produce in the real world - spinning a wheel, rolling a dice and so on are millennia-old techniques but producing the same randomness in a computer program is actually rather tricky
Computer	• Computers do not produce random numbers at all • They use complex mathematical techniques to produce a series of numbers that may appear random but are really only an approximation to randomness (called pseudo-random numbers) • We refer to them as random numbers anyway
OCR Reference Language	myVariable = random (1,6) will produce a random number between 1 and 6

Drama – Year 10 Term 1

Skills development

You will be developing your skills from KS3 and applying them to different styles of drama, working towards a performance to an audience.

Performance Skills		Drama Techniques		Performance Styles	
Characterisation: Using a range of performance skills to create a character different from yourself		Posture : The way that you sit or stand. The alignment of your spine	Narration: Normally spoken to the audience . Performers tell the story, give information or comment on the actions.	Freeze frame / Still image : A picture of a moment in time, as though the pause button has been pressed 	Improvisation- performances that are made up on the spot with or without a stimulus or starting point.
Facial Expressions : Using your face to show how a character is feeling		Gesture: A movement (usually of the arm / hand) that communicates a specific meaning	Thought tracking: A character reveals their inner thoughts to the audience. This information should tell the audience something new.	Marking the moment: Highlighting / drawing the audience's attention to an important moment in a piece. This can be done by using drama techniques.	Naturalism- Stanislavski, performances looked real and character development is based on using your own experiences and working out exactly what your character is trying to achieve in each section.
Levels: Using different heights to communicate meaning or to add visual interest		Vocal skills- Pace, pause, pitch, volume, accent etc – How you use your voice to create different characters and communicate meaning.	Slow motion: Moving at a least 2/3 slower than normal speed, allowing the audience to see the detail of a moment.	Physical theatre: A type of performance where physical movement is the primary method of storytelling. It may incorporate other techniques such as mime, gesture and modern dance to create performance pieces.	
What makes a good performance? Which is the most important vocal skill? Why? Which is the most important physical skill? Why? What style and techniques would you use to create a performance about the pandemic? Why?				Flashback: Where you start at the end of a story and return to the important details that have happened previously. This allows an audience to understand the backstory.	

Year 10 – Poets / poems term 1



Percy
Shelley:
'Ozymandias'



Wilfred
Owen:
'Exposure'



John Agard:
'Checking
Out Me
History'



Jane Weir:
'Poppies'



Tennyson:
'Charge of
the Light
Brigade'



Ted
Hughes:
'Bayonet
Charge'



Seamus
Heaney:
'Storm on
the Island'



Simon
Armitage:
'Remains'

Section B Poetry: students will answer one comparative question on one named poem printed on the paper and one other poem from their chosen anthology cluster.

**Agard: "Bandage up me eye with me own history
Blind me to my own identity"**

Heaney: "Strange, it is a huge nothing that we fear."

Poetic Techniques

LANGUAGE

Metaphor – comparing one thing to another
Simile – comparing two things with 'like' or 'as'
Personification – giving human qualities to the nonhuman
Imagery – language that makes us imagine a sight (visual), sound (aural), touch (tactile), smell or taste.
Tone – the mood or feeling created in a poem.
Pathetic Fallacy – giving emotion to weather in order to create a mood within a text.

STRUCTURE

Stanza – a group of lines in a poem.
Repetition – repeated words or phrases
Enjambment – a sentence or phrase that runs onto the next line.
Caesura – using punctuation to create pauses or stops.
Juxtaposition – contrasting things placed side by side.
Anaphora – when the first word of a stanza is the same across different stanzas.

Example question:
 Compare how poets present the effects of war in 'Bayonet Charge' and in one other poem from 'Power and conflict'. (May 2017)



Website:

Language for comparison

When poems have similarities
 Similarly, ... / Both poems convey / address...
 Both poets explore / present... / This idea is also explored in... / In a similar way, ... / Likewise, ...

When poems have differences

Although... / Whereas... / Whilst... / In contrast, ...
 Conversely, ... On the other hand, ...
 On the contrary, ... Unlike...



**Wider Reading
and viewing:
Mr Bruff**

Bitesize

<https://www.aqa.org.uk/subjects/english/gcse/english-literature-8702>

CLICK ME

<https://www.youtube.com/watch?v=d7Mo57vc104>

CLICK ME

<https://www.bbc.co.uk/bitesize/topics/zprys/g8>

CLICK ME

What is development?	
Development is an improvement in living standards through better use of resources.	
Economic	This is progress in economic growth through levels of industrialisation and use of technology.
Social	This is an improvement in people's standard of living. For example, clean water and electricity.
Environmental	This is advances in the management and protection of the environment.
Measuring development	
There are used to compare and understand a country's level of development.	
Economic indicators examples	
Employment type	The proportion of the population working in primary, secondary, tertiary and quaternary industries.
Gross Domestic Product (GDP) per capita	This is the total value of goods and services produced in a country per person, per year.
Gross National Income (GNI) per capita	An average of gross national income per person, per year in US dollars.
Social indicators examples	
Infant mortality	The number of children who die before reaching 1, per 1000 babies born.
Literacy rate	The percentage of population over the age of 15 who can read and write.
Life expectancy	The average lifespan of someone born in that country.
Mixed indicators	
Human Development Index (HDI)	A number that uses life expectancy, education level and income per person.

Five stages of economic development.	
Rostow's model predicts how a country's level of economic development changes over time. The model also shows how people's standard of living improves.	1. Traditional society
	Subsistence based. i.e. farming, fishing and little trade.

Variations in the level of development	
LIDCs	Poorest countries in the world. GNI per capita is low and most citizens have a low standard of living.
EDCs	These countries are getting richer as their economy is progressing from the primary industry to the secondary industry. Greater exports leads to better wages.
ACs	These countries are wealthy with a high GNI per capita and standards of living. These countries can spend money on services.

Key
 Advanced countries
 Emerging developing countries
 Low-income developing countries

Uneven development

Development is globally uneven with most ACs located in Europe, North America and Oceania. Most EDCs are in Asia and South America, whilst most LIDCs are in Africa. Remember, development can also vary within countries too.

Geography

Dynamic Development

Physical factors affecting development	
Natural Resources	Natural Hazards
- Fuel sources such as oil. - Minerals and metals for fuel. - Availability for timber. - Access to safe water.	- Risk of tectonic hazards. - Benefits from volcanic material and floodwater. - Frequent hazards undermines redevelopment.
Climate	Location/Terrain
- Reliability of rainfall to benefit farming. - Extreme climates limit industry and affects health. - Climate can attract tourists.	- Landlocked countries may find trade difficult. - Mountainous terrain makes farming difficult. - Attractive scenery attracts tourists.

2. Preconditions for take-off	3. Take-off	4. Drive to maturity	5. Mass Consumptions
Manufacturing starts to develop with better infrastructure.	Rapid growth with large-scale industrialisation.	Economy grows so people get wealthier & have higher standards of living	Lots of trade with a high level of consumption.

Human factors affecting development	
Politics	Trade
- Aid can help some countries develop key services and infrastructure faster. - Aid can improve projects such as schools, hospitals and roads. - Too much reliance on aid might stop other trade links becoming established.	- Countries that export more than they import have a trade surplus. This can improve the national economy. - Having good trade relationships. - Trading goods and services is more profitable than raw materials.

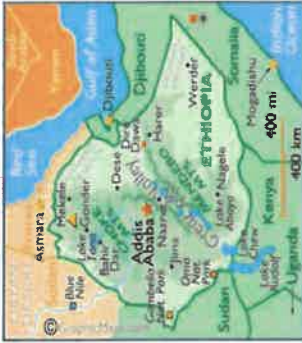
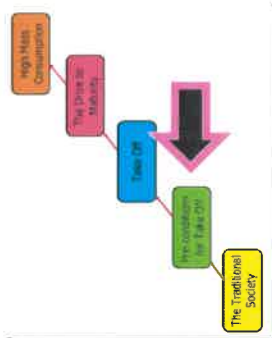
Education	Health
- Education creates a skilled workforce meaning more goods and services are produced. - Educated people earn more money, meaning they also pay more taxes. This money can help develop the country in the future.	- Lack of clean water and poor healthcare means a large number of people suffer from diseases. - People who are ill cannot work so there is little contribution to the economy. - More money on healthcare means less spent on development.

Aid	History
- Corruption in local and national governments. - The stability of the government can effects the country's ability to trade. - Ability of the country to invest into services and infrastructure.	- Colonialism has helped Europe develop, but slowed down development in many other countries. - Countries that went through industrialisation a while ago, have now develop further.

Consequences of Uneven Development	
Levels of development are different in different countries. This uneven development has consequences for countries, especially in wealth, health and education.	
Wealth	People in more developed countries have higher incomes than less developed countries.
Health	Better healthcare means that people in more developed countries live longer than those in less developed countries.
Education	More developed countries have better standards of education available than those in less developed countries.

Barriers to ending Poverty

Debt	Many LDCs have huge national debts from borrowing from wealthy countries and organisations. With high interest rates, these debts are difficult to wipe out and can lead to a spiral of decline. This situation makes it difficult for these countries to invest in services and infrastructure.				
Trade	Countries with a negative balance of trade, import more than they export make development difficult. Also ACs have TNCs that operate in LDCs. These companies take profits away from LDCs to ACs where their headquarters are.				
Political unrest	Widespread dissatisfaction with the government can be caused by political unrest, corruption and a lack of investment and attention into services (i.e. education and healthcare).				
Breaking out of Poverty	Countries can try various ways to reduce poverty and increase development. These often involve different types of aid that can either be short term or long term strategies.				
Top Down	These are large scaled, government led and expensive schemes involving money borrowed from wealthier countries. Their is little community involvement but instead large scale projects.				
Bottom Up	These are small scaled, local led and less expensive schemes. They involve communities and charities developing local businesses and housing.				
Short term	This aid is sent to help countries cope with emergencies such as natural disasters.				
Long term	This is aid given over a long period to help countries develop through investing in projects such as education and healthcare.				
Trade	Fair trade can allow for fair wages. Also grouping with other countries in the form of trading blocs can increase links and increase the economy.				
Debt Relief	Wealthier countries can cut or partly cut debt to countries that have borrowed money. This allows for money to be reinvested in development.				
Positives and Negatives of Aid <table> <tr> <th>Positives</th><th>Negatives</th></tr> <tr> <td>Allows for immediate or long-term investment into projects that can develop a countries prospects.</td><td>Local people might not always get a say. Some aid can be tied under condition from donor country.</td></tr> </table>		Positives	Negatives	Allows for immediate or long-term investment into projects that can develop a countries prospects.	Local people might not always get a say. Some aid can be tied under condition from donor country.
Positives	Negatives				
Allows for immediate or long-term investment into projects that can develop a countries prospects.	Local people might not always get a say. Some aid can be tied under condition from donor country.				

Are LDCs likely to stay poor? Case Study: Ethiopia	
Location & Background Ethiopia is a LDC in the horn of Africa. A landlocked country surrounded by five countries. The 10th largest in Africa , it has the second largest population with 94 million . The capital is Addis Ababa with a population of 3.5 million.	
Current level of development - GNI per capita is \$505 compared to a world average of \$10,858 - Level of wealth per person is significantly less than other LDCs across the world. - High birth rate & slower death rate equals growing population. - A long history of disease, poverty and political unrest. - HDI of 0.435 with low life expectancy at 63 years. - Country is reliant on agriculture with 89% of all exports. - Country receives more imports than exports.	
Influences upon Ethiopia's development	
Political - Ethiopia has suffered from various civil and military unrest. - Derg government (1974-1987) killed thousands and terrorised people to cause many to migrate as refugee. - Government is now stable since being a republic in 1991.	Social 1984-85 famine killed a million people in just 1 year due to drought and high food prices. - Growing population is causing a food deficit. - People have a growing trust of the government but free speech is still limited.
Ethiopia & Rostow's Model - Despite the large primary industry, Ethiopia has improved education and healthcare due to investments from TNCs. As a result, Ethiopia is at stage 2. - Better technologies & quality of life is allowing for pre Take off to emerge.	
Investment from TNC A range of TNCs such as Siemens and Afriflora are now operating in Ethiopia at a primary, secondary and tertiary level. - Investment in infrastructure is increasing tourism. - Increase employment levels and people receive fair wages. -Some TNC pay low salaries and working conditions are poor. -TNCs sometimes take advantage of the unstrict regulations in place.	Aid & Debt relief 5 million people receive food aid from charities such as Oxfam and Farm Africa. - Oxfam's Goat Aid is sustainable for young women. 'The Girl Effect' encourages equality & reduces birth rates. - Wealthier countries encouraged the decline of the country's massive debt. - Less debt repayments has meant more reinvestment.
Physical - Rainfall in the country is unpredictable. This makes agriculture difficult. - Inaccessibility, water shortages and infestations make valuable land difficult to farm. - Drought affected areas has caused over-farming and desertification.	Economic - Agriculture makes up most of the country's economy. - Reliance on agriculture is vulnerable to climate change. - Economy is now growing meaning fewer are in poverty. - Income in the secondary & tertiary sectors are growing (particularly in tourism).
Millennium Development Goals	
Set by the UN to set targets to reduce poverty. - Ethiopia is on track with primary education, reducing child mortality and healthcare. - Malnutrition, gender equality, disease, global partnership and environmental sustainability is still a problem	
Millennium Development Goals	
Development strategy for Ethiopia	
Bottom-up This is led by local people and are known as 'grassroot' project. - Mission Aviation and Farm Africa have helped locals create sanitation, water systems, educate farmers and breed a livestock. - Bottom-up approaches can be localized and depend on volunteers.	Top-down strategies This is large scale investment at a national level. + \$3.6 billion has been spent converting rural mud roads into asphalt roads. Investment in HEP dams has produced a reliable source of energy. - Local farmers have been evicted from HEP dam areas and water has become polluted.

Enquiry: How successful was the civil rights movement?

Outline: At the start of the 20th century, Black Americans in the USA were actively discriminated against at all levels of society and they faced huge challenges. However, progress was made in many areas through the hard work of many people and many significant reforms were achieved, despite strong opposition.

President	Dates	Party	Events
Harry Truman	1945-1953	Democrat	Made a speech to 10,000 NAACP members at the Lincoln memorial. Faced opposition from Dixiecrats in the 1948 election like Strom Thurmond.
Dwight Eisenhower	1953-1961	Republican	1954: Brown v. Topeka 1955 Murder of Emmett Till 1955-56 Montgomery Bus Boycott 1957: Little Rock 9 and Civil Rights Act
John F. Kennedy	1961-1963	Democrat	1963 Birmingham March 1963 Washington March
Lyndon B. Johnson	1963-1968	Democrat	1964 Civil Rights Act 1964 Freedom Summer 1965 Assassination of Malcolm X 1965 Selma March and Voting Rights Act 1968 Assassination of King 1968 Civil Rights Act
Richard Nixon	1968-1974	Republican	Pushed for affirmative action Employed more black officials in the White House like James Farmer Set up more training for black people and tax breaks to white businesses that worked in black neighbourhoods



History – GCSE Knowledge Organiser Topic 1



Key individuals.



John Lewis.
Worked for SNCC but
Joined Dr King at the
Selma march. Fought
Civil rights his whole life.



Claudette Colvin.
She was a 15 year-old
who refused to move
from her seat on a
bus months before
Parks and was arrested.



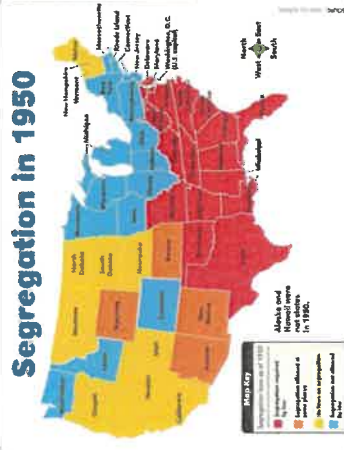
Tommie Smith.
One of two US athletes
at the Mexico Olympics
who made the Black
Power salute

Key vocabulary:

African American: Americans who were descended from people taken to America as slaves from Africa.
Black Power: campaign to have pride in being a Black person. Some groups advocated using violence to gain rights.
Boycott: to refuse to use something like people not using buses in Montgomery.
Civil rights: Basic human rights that everyone should have.
Civil Rights Movement: campaign to achieve equal rights for Black Americans through using peaceful methods.
CORE: civil rights group set up in Chicago in 1942 which used boycotts as a tactic but later became more radical.
Direct action: gain attention for your cause through methods like marches, boycotts, sit-ins.
Freedom rides: protesters travelling on inter-state buses whilst ignoring the law to segregate on these.
Ghetto: poor area in cities where Black Americans tended to live, like Harlem in NY.
Jim Crow Laws: laws in the South of the USA where Black Americans were separated from white Americans.
Lynching: take someone captive and murder them, normally by hanging.
MIA: group set up by Dr King to run the bus boycott
Militant: in favour of confrontation or violence.
NAACP: National Association for the Advancement of Colored People which was set up in 1909 to campaign for equal rights.
Nation of Islam: group that supported Black Power. Malcolm X and Muhammed Ali were members.
Segregation: separating people in the South due to the colour of their skin in areas like transport, schools, diners, toilets...
Sit-ins: where students sat in the white section of a diner and refused to leave.
SCLC: set up by Dr King to organise protests across the country.
SNCC: at first a civil rights group, but then a Black Power group
The South: the more openly racist areas of the USA like Mississippi, Alabama and Georgia.
WCC: White Citizen Councils set up by white people to oppose civil rights for all.

Enquiry: How successful was the civil rights movement?

Segregation in 1950



Key facts on civil rights in the 1950s

Literacy tests like the Louisiana test made voting difficult.

1948 Shelley v. Kraemer when the Supreme Court ruled that rules stopping black people from buying homes in white neighbourhoods were unconstitutional.

Supreme Court ruled against segregation in areas like dining cars (Henderson v. US) separation in universities (McLaurin v. Oklahoma) and at the university of Texas.

1954 Brown v Topeka for Linda Brown (21 blocks; nearest school was 7) ruled education segregation to be unconstitutional. Led to the setting up of WCC across the South.

1955 Emmett Till murdered in Mississippi.

1955-56 Montgomery bus boycott – company lost 65% profits and \$1 million. Lasted over a year. MIA helped and inspired 20 other boycotts.

1956 Browder v Gayle confirmed desegregated buses.

Dr King set up the SCLC in 1957 after the boycott.

1957 Little Rock 9 in Arkansas. Eisenhower sent in 1,100 soldiers to help students like Ernest Green and Elizabeth Eckford. Governor Orval Faubus blocked the 9.

Only 2500 schools out of 2 million in Arkansas, Alabama, S Carolina and Mississippi were not de-segregated.

Prior learning?

Rights and equality
Segregation



History – GCSE Knowledge Organiser Topic 1

Key facts on civil rights in the 1960s

Over 70,000 students sat in the “wrong” section in diners in sit-ins. Over 3,000 students were arrested after the first one in Greensboro, N. Carolina in 1960.

SNCC set up in 1960.

Freedom rides in 1961 led to attacks like the Anniston bombing.

James Meredith tried to attend the University of Mississippi and students rioted in 1962.

In May 1963, Birmingham Alabama saw 30,000 march, including children. The police chief “Bull” Connor used dogs, fire hoses, tear gas and prods and Dr King was arrested.

In August 1963, Washington march of 200,000 Black Americans and 50,000 white Americans at the Lincoln Memorial where King made “I have a dream” speech.

Freedom Summer in Mississippi in 1964 saw the murder of activists by the KKK.

1964 Civil Rights Act ended segregation.

1965 Voting Rights Act ended literacy tests.

1966 James Meredith leads the March Against Fear

1966 King went to Chicago to help campaign but riots happened in the ghetto.

1968 Civil Rights Act improved housing.



Key facts on the Black Power movement

Watts race riots in 1965 in LA.

Between 1964 and 1968 there were 300 major riots in 250 cities.

The Black Panthers were set up in 1966 and had 5,000 members by 1968.

Leaders like Elijah Muhammad for the Nation of Islam and Stokely Carmichael for the SNCC

Malcolm X and Muhammed Ali joined the Nation of Islam.

1965 Malcolm X assassinated in Harlem, NY. 15,000 attended his funeral

1968 Kerner Report on riots

1968 Mexico Olympics Black Power salute: Tommie Smith and John Carlos

Both SNCC and CORE closed due to lack of support.

Black Panthers lost leaders in police shoot-outs.



Furthering learning

Want to find out more about the fight for civil rights?

YEAR 10 — SIMILARITY...

@whisto_maths

Congruence, similarity & enlargement

What do I need to be able to do?

By the end of this unit you should be able to:

- Enlarge by a positive scale factor
- Enlarge by a fractional scale factor
- Identify similar shapes
- Work out missing sides and angles in similar shapes
- Use parallel lines to find missing angles
- Understand similarity and congruence

Keywords

Enlarge: to make a shape bigger (or smaller) by a given multiplier (scale factor)

Scale Factor: the multiplier of enlargement

Centre of enlargement: the point the shape is enlarged from

Similar: when one shape can become another with a reflection, rotation, enlargement or translation

Congruent: the same size and shape

Corresponding: items that appear in the same place in two similar situations

Parallel: straight lines that never meet (equal gradients)

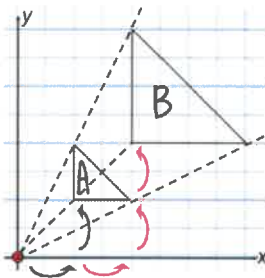
Positive scale factors R

Enlargement from a point

Enlarge shape A by SF 2 from (0,0)

The shape is enlarged by 2

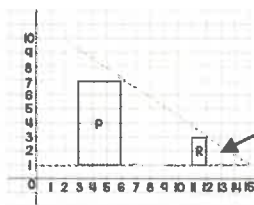
The distance from the point enlarges by 2



Fractional scale factors R

Fractions less than 1 make a shape SMALLER

R is an enlargement of P by a scale factor $\frac{1}{3}$ from centre of enlargement (15,1)



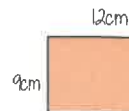
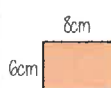
SF: $\frac{1}{3}$ - R is three times smaller than P

Identify similar shapes



Angles in similar shapes do not change.
e.g. if a triangle gets bigger the angles can not go above 180°

Similar shapes



Scale Factor:
Both sides on the bigger shape are 1.5 times bigger

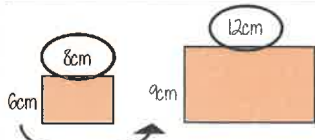
Compare sides:

6 : 9
2 : 3

8 : 12
2 : 3

Both sets of sides are in the same ratio

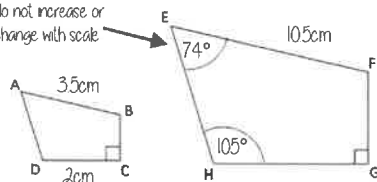
Information in similar shapes



Compare the equivalent side on both shapes

Scale Factor is the multiplicative relationship between the two lengths

Remember angles do not increase or change with scale



Shape ABCD and EFGH are similar

Notation helps us find the corresponding sides

AB and EF are corresponding

Angles in parallel lines R

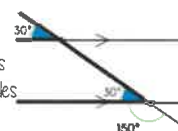
Alternate angles



Because alternate angles are equal the highlighted angles are the same size

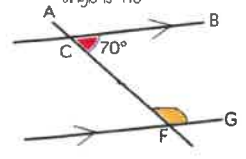
Corresponding angles

Because corresponding angles are equal the highlighted angles are the same size



Co-interior angles

Because co-interior angles have a sum of 180° the highlighted angle is 110°



As angles on a line add up to 180° co-interior angles can also be calculated from applying alternate/ corresponding rules first

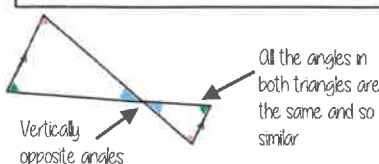
Similar triangles

Shares a vertex

Because corresponding angles are equal the highlighted angles are the same size

Parallel lines — all angles will be the same in both triangle

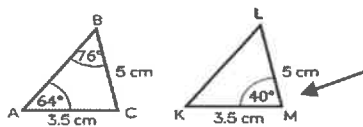
As all angles are the same this is similar — it only one pair of sides are needed to show equality



All the angles in both triangles are the same and so similar

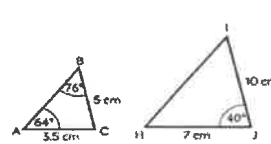
Congruence and Similarity

Congruent shapes are identical — all corresponding sides and angles are the same size



$\triangle ABC \sim \triangle KLM$

Because all the angles are the same and $AC = KM$ $BC = LM$ triangles ABC and KLM are congruent



Because all angles are the same, but all sides are enlarged by 2 ABC and HU are similar

Conditions for congruent triangles

Triangles are congruent if they satisfy any of the following conditions

Side-side-side

All three sides on the triangle are the same size

Angle-side-angle

Two angles and the side connecting them are equal in two triangles

Side-angle-side

Two sides and the angle in-between them are equal in two triangles (it will also mean the third side is the same size on both shapes)

Right angle-hypotenuse-side

The triangles both have a right angle, the hypotenuse and one side are the same

YEAR 10 — SIMILARITY...

@whisto_maths

Trigonometry

What do I need to be able to do?

By the end of this unit you should be able to:

- Work fluently with hypotenuse, opposite and adjacent sides
- Use the tan, sine and cosine ratio to find missing side lengths
- Use the tan, sine and cosine ratio to find missing angles
- Calculate sides using Pythagoras' Theorem

Keywords

Enlarge: to make a shape bigger (or smaller) by a given multiplier (scale factor)

Scale Factor: the multiplier of enlargement

Constant: a value that remains the same

Cosine ratio: the ratio of the length of the adjacent side to that of the hypotenuse. The sine of the complement

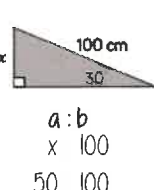
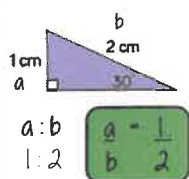
Sine ratio: the ratio of the length of the opposite side to that of the hypotenuse

Tangent ratio: the ratio of the length of the opposite side to that of the adjacent side.

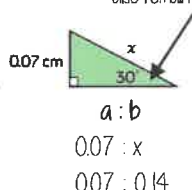
Inverse: function that has the opposite effect

Hypotenuse: longest side of a right-angled triangle. It is the side opposite the right-angle.

Ratio in right-angled triangles

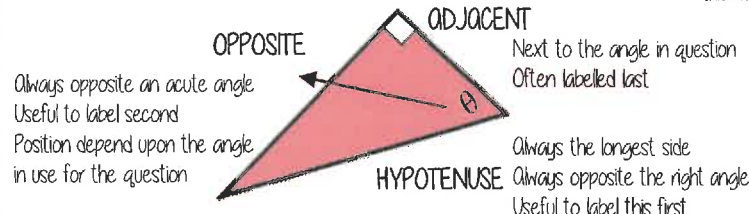


When the angle is the same the ratio of sides a and b will also remain the same



Hypotenuse, adjacent and opposite

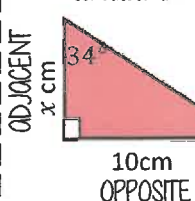
ONLY right-angled triangles are labelled in this way



Tangent ratio: side lengths

$$\tan \theta = \frac{\text{opposite side}}{\text{adjacent side}}$$

Substitute the values into the tangent formula



$$\tan 34 = \frac{10}{x}$$

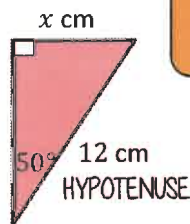
Equations might need rearranging to solve

$$x \times \tan 34 = 10$$

$$x = \frac{10}{\tan 34} = 14.8 \text{ cm}$$

Sin and Cos ratio: side lengths

OPPOSITE

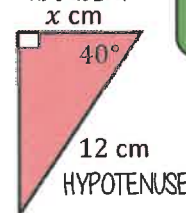


$$\sin \theta = \frac{\text{opposite side}}{\text{hypotenuse side}}$$

NOTE

The $\sin(x)$ ratio is the same as the $\cos(90-x)$ ratio

ADJACENT



$$\cos \theta = \frac{\text{adjacent side}}{\text{hypotenuse side}}$$

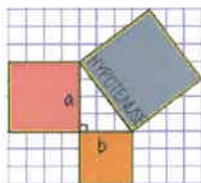
Substitute the values into the ratio formula

Equations might need rearranging to solve

Pythagoras theorem



$$\text{Hypotenuse}^2 = a^2 + b^2$$



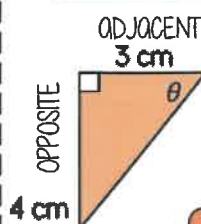
This is commutative — the square of the hypotenuse is equal to the sum of the squares of the two shorter sides

Places to look out for Pythagoras

- Perpendicular heights in isosceles triangles
- Diagonals on right angled shapes
- Distance between coordinates
- Any length made from a right angles

Sin, Cos, Tan: Angles

Inverse trigonometric functions



Label your triangle and choose your trigonometric ratio

Substitute values into the ratio formula

$$\theta = \tan^{-1} \frac{\text{opposite side}}{\text{adjacent side}}$$

$$\theta = \sin^{-1} \frac{\text{opposite side}}{\text{hypotenuse side}}$$

$$\theta = \cos^{-1} \frac{\text{adjacent side}}{\text{hypotenuse side}}$$

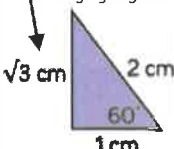
$$\tan \theta = \frac{4}{3}$$

$$\theta = \tan^{-1} \frac{4}{3}$$

$$\theta = 56.9^\circ$$

Key angles

This side could be calculated using Pythagoras



$$\tan 30 = \frac{1}{\sqrt{3}}$$

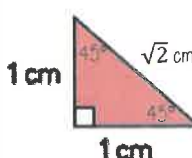
$$\tan 60 = \sqrt{3}$$

$$\cos 30 = \frac{\sqrt{3}}{2}$$

$$\cos 60 = \frac{1}{2}$$

$$\sin 30 = \frac{1}{2}$$

$$\sin 60 = \frac{\sqrt{3}}{2}$$



$$\tan 45 = 1$$

$$\cos 45 = \frac{1}{\sqrt{2}}$$

$$\sin 45 = \frac{1}{\sqrt{2}}$$

Key angles 0° and 90°

$$\tan 0 = 0$$

$$\tan 90$$

This value cannot be defined — it is impossible as you cannot have two 90° angles in a triangle



$$\sin 0 = 0$$

$$\sin 90 = 1$$

$$\cos 0 = 1$$

$$\cos 90 = 0$$

GCSE Y10 Media Knowledge Organiser 2022-23



GCSE MEDIA

Media Language GCSE Media Studies	
You will study how products use different types of language to communicate multiple meanings (polysemy/polysemic). How the combinations influence meaning and how developing technologies affect media language. You will also study how genre conventions are socially and historically relative.	
Key Aspects	
Mediation (selection, combination and exclusion)	Media producers make choices which influences meaning in media products, including to create narratives, to portray aspects of reality, to construct points of view, and to represent the world in ways that convey messages and values.
Conventions	What the audience expects to see in a particular media text, for example the conventions of science fiction films may include: aliens, scientists, other worlds, gadgets, representations of good and evil. Useful headings to discuss conventions are: characters, setting, iconography, narrative, technical codes and representation.
Roland Barthes' language codes	Semantic codes: Refers to the connotations of elements in the text. It has an extra layer of meaning in addition to its literal meaning: Enigma codes: This code refers to mystery within a text. Clues are dropped, but no clear answers are given: Action codes: This codes refers to the elements that signify action to be taken e.g. a person packing a suitcase – a code for leaving: Referential/Cultural codes: Refers to anything in the text which refers to an external body of knowledge such as scientific, historical and cultural knowledge. (can be intertextual)
Technical codes	These are the way in which the text has been produced to communicate meanings these include: layout, design, graphics, logos, camera shots (close-up, medium, long, wide, etc), angles (high, low, canted) and movement (pan, tilt, track/dolly, zoom in/out, crane), editing filters and tools, font size, font design (serif or san-serif), horizontal or vertical navigation menu, hyperlinks, etc.
Visual codes	Lighting (Low-key or high key lighting, exterior or interior lighting, natural or unnatural lighting). Composition (rule of thirds, textual metafunction). Focus. Colour. Iconography. Mise-en-scene: (Costume, Lighting, Actors body language and position in frame (including eyeline), Make-up, Props, Setting), etc.
Audio codes	Non-diegetic (characters cannot hear this) and diegetic (part of the character's reality) sounds including tone of dialogue, ambient sounds, atmospheric sounds, music tracks, score, theme music, dialogue, voiceover, sound effects, backing music, idents, etc.
Written or spoken language	formal/informal, factual/emotive, anchorage, features such as puns, alliteration, Metaphor, direct address, humour, slang, exclamations, rhetorical questions, statistics, superlatives, technical/specialist vocabulary, rule of three, similes, listing, etc.

Top Quotes	
"Reality exists outside language, but it is constantly mediated by and through language: and what we can know and say has to be produced in and through discourse." Stuart Hall	
Genres are instances of repetition and difference; this is what pleasure for the audience is derived from." "difference is absolutely essential to the economy of genre': more repetition would not attract an audience. Steve Neale	
"Genre is a constant process of negotiation and change" David Buckingham	
"Genre attempts to structure some order into the wide range of texts and meanings that circulate in our culture for the conveniences of both producers and audiences" John Fiske	
"satisfaction is guaranteed with genre; the deferral of the inevitable provides the additional pleasure of prolonged anticipation" Deborah Knight	
Julia Kristeva argued against the concept of a text as a isolated entity which operates in a self-contained manner and states that: "any text is the absorption and transformation of another"	
Theories/concepts you need to know.	
Character Spheres of action	Propp defined character categories as: the villain , who struggles with the hero (formally known as the antagonist); the donor ; the helper ; the Princess , a sought-for person (and/or her father), who exists as a goal and often recognizes and marries hero and/or punishes villain; the dispatcher ; the hero , who departs on a search (seeker-hero), reacts to the donor and weds; the false hero (or antihero or usurper), who claims to be the hero, often seeking and reacting like a real hero (i.e. by trying to marry the Princess)
Narrative Stages Tzvetan Todorov	Equilibrium – Disruption – Recognition of disruption – Attempt to repair disruption – Resolution/New equilibrium - Main genres e.g. drama – Sub genres e.g. medical drama – Hybrid genres e.g. action comedy. - Genres may be dominated by repetition, but are also marked by difference, variation and change. Often keeping the same iconography and producing paradigms. - Genres change, develop and vary, as they borrow from and overlap with one another, especially over time. - Genres exist within specific economic, institutional and industrial contexts. - Genres repeat, become clichés, get parodied.
Genre Theory	
Intertextuality	Where a text alludes to, or references, another text. Every text (and we can insert any cultural object here: image, film, web content, music etc.) is a mosaic of references to other texts, genres, and discourses. Intertextual figures include: reference and allusion, quotation, translation, <i>postiche</i> and parody. Intertextuality has different meanings depending on your point of view e.g. if you haven't seen a TV show that another references, then you won't understand the full meaning of it. Instead of basing genres around obvious visual clues, it is more meaningful to split texts according to their themes and plots and in particular their leading characters.
Only Five Genres – Frank McConnell	
Binary Opposites Claude Lévi-Strauss	Binary Opposites: The oppositions within texts create conflict together and drive narratives forward e.g. good vs. evil, man vs. robot, black vs white, good cop/bad cop, young and old, etc

Vocabulary
1. Shot Types
2. Camera angle and movement
3. Referential code
3. Enigma code
4. Connotation
5. Conventions
6. Anchorage
7. Diegetic and non-diegetic
8. Reality
9. Mediation
10. Signs/Signifiers
11. Encoding/decoding
12. Polysemy
13. Narrative Structure
14. Equilibrium
15. Disruption
16. Resolution
17. Sub - genre and hybridity
18. Iconography
19. Paradigms
20. Intertextuality
21. Mise-en-scene
22. Composition
23. Dialogue
24. Atmospheric sounds
25. Ambient sounds

Media Industries – Knowledge Organiser GCSE Media Studies	
The media industries are the companies that produce media products. Products need to be funded, produced and distributed (and circulated) by these companies. The products will also be marketed and advertised by the industries. The industries can be major conglomerate corporations (who own many smaller companies i.e. subsidiaries which produce many different media over a range of platforms e.g. film, TV, newspapers video games, etc), catering for mass and niche audiences, or independent (indie) companies, catering for mainly niche audiences. They mediate and re-present the world to us and act as gatekeepers of information at times (although this is changing with new media e.g. twitter and citizen journalism).	
	MAIN TOPICS
Media Production	Media production can be broadly categorised into mainstream/large scale production and independent/smaller scale production. Consider factors such as funding/budget, production values of a product and the impact on distribution/circulation/exhibition . Some media organisations are large, powerful, multinational conglomerates but others are much smaller, niche/Independent companies. The development of digital technologies has resulted in an increase in user-generated content and individuals are now able to produce media products and circulate them globally via the internet.
Production Processes	Production processes vary depending on the form/type of product. Key personnel e.g. ‘ star ’ or director, newspaper editor etc. can have an impact on the product. Technology has had a significant impact on media products (e.g. CGI in film/television/video games). Compare historical and contemporary products, American and British products etc.
Ownership and control	Ownership is important to consider in relation to the finished product. Certain media organisations have a lot of power, for example large media conglomerates and vertically integrated organisations, who control all stages of production, distribution and circulation . Conglomerates tend to produce a range of different media products, often diversifying into different forms, and communicate particular values and beliefs through these products. Examples of conglomerates include NewsCorp (The Sun) and Warner Music Group (owner of Atlantic records, <i>Bruno Mars</i> ’ record label).
Proliferation and convergence	Many media organisations use different platforms to create/develop a ‘ brand ’, increasing the commercial potential of a product e.g. <i>Katy Perry</i> – convergence of music, music video, website, links to social media etc.; <i>Spectre</i> – convergence of different marketing platforms via the website; <i>GQ</i> – print magazine, online/digital edition. Many such products extend across different national settings , although some organisations may distribute/circulate different products in different countries (e.g. different trailers/posters for a film).
Funding	Funding impacts on the types of product that are produced by media organisations, and different funding models ensure that a diverse range of products are produced, targeting different audiences. Government funded products include public information campaigns such as Sport England’s <i>This Girl Can</i> campaign. Not-for-profit public funding e.g. BBC licence fee – public service remit (to educate, inform, entertain). Commercial models – driven by profit e.g. film, magazines, video games -important to appeal to audiences to be commercially successful.
Global Industries	Most media organisations ensure that their products have a global reach through both traditional and, increasingly, online distribution channels , e.g. all of the music artists use social media, <i>UKS</i> broadcast on Netflix, <i>Pokémon Go</i> available globally, <i>Guardian</i> online etc. The BBC is a not-for-profit organisation within the UK, but does have a commercial arm that distributes products globally e.g. <i>Luther</i> is also broadcast on BBC America. Some mainstream products aim to reach a large global audience (e.g. <i>Spectre</i>); however specialised audiences can also be reached, especially via online media, e.g. <i>Pride</i> .
Regulation	See regulation on opposite page.

Vocabulary	
1. Publically funded	
2. Commercially funded	
3. Subscription	
4. Not-for-profit	
5. Crowd-funded	
6. Conglomerates	
7. Subsidiaries	
8. Horizontal integration	
9. Vertical integration	
10. Freelance	
11. Values and beliefs	
12. Regulator	
13. Convergence (technical and business)	
14. Marketed	
15. Specialised/niche audiences	
16. Multi-national	
17. Targetting	
18. Exhibition	
19. User-generated content	
20. Primary and secondary audience research	
21. Audience 2.0 and prosumers	
22. Surveillance	
23. Privacy	
24. Public interest	
25. Brand identity/recognition	
26. Synergy/Cross-media promotion	
27. Personnel	
28. Distribution	
29. Globalisation	
30. Pluralisation	

Key Terms	
Media Imperialism	The global domination of media production by a small number of western, transnational conglomerates . These productions include western ideologies and perpetuate western culture across the globe.
Globalisation	The process by which a wide range of cultural texts (films, adverts, TV shows, music, magazines, papers, etc) are transmitted to global audiences , across great distances and quicker than ever before, giving the impression of cultural immediacy and simultaneity between ‘distant’ cultures.
Media concentration	Concentration of media ownership (also known as media consolidation or media convergence) is a process whereby progressively fewer individuals or organizations control increasing shares of the mass media.
Funding	Media products are funded in a variety of ways: Subscriptions, publicly funded (e.g. the BBCs license fee), commercially (payment from advertising), crowd-funding, private investment, data-mining and the selling of this info to third parties, and many, many other ways.
External pluralisation	The wider range of channels, programmes, broadcasts, websites, films, etc, available to consumers due to globalization and the internet. This leads to internal pluralisation.
Internal Pluralisation	The wider range of more diverse content within the media. Reflecting the plurality of societies and cultures worldwide.
Diversification	Where media organisations who have specialised in producing media products in one form move into producing content across a range of forms.
Horizontal integration	Where a media conglomerate is made up of different companies that produce and sell similar products, often as a result of mergers.
Vertical integration	Vertically integrated companies own all or most of the chain of production and distribution for the product.
Convergence (business and technological)	The coming together of previously separate media industries and/or platforms ; often the result of advances in technology whereby one device or platform contains a range of different features. The mobile phone, for example, allows the user to download and listen to music, view videos, tweet artists etc. All this can be done through one portable device.
Synergy and cross-media promotion	The process through which a series of media products (films, soundtracks, books), derived from the same text (e.g. a blockbuster film) are promoted in and through each other.
Proliferation	Media products spreading onto many different platforms e.g. TV news programmes spreading their content on their websites, and apps.
Brand identity and recognition	The association the audience make with the brand , for example <i>Chanel</i> or <i>Nike</i> , built up over time and reinforced by the advertising campaigns and their placement.
Technological Developments	*Web 2.0, Social Networks and Data mining *4k TV *Broadband streaming and piracy of TV shows *TV on demand *Digitisation of print *Apps *Converged technologies – smart phones/ smart TVs/tablets

Media Industries – Knowledge Organiser

GCSE Media Studies

Regulation

Regulation refers to the whole process of control or guidance, by established rules and procedures, applied by governments and other political and administrative authorities to all kinds of media activities. Thus regulation is always a potential intervention in ongoing activities, usually for some stated "public interest" goal, but also to serve the needs of the market (for instance, by supporting competition) or for reasons of technical efficiency (for instance, setting technical standards). Deregulation: The reduction or elimination of regulation. Key considerations of regulation: *Ethical and moral issues * Causing offense *Copyright infringement *Accuracy *Data Protection Act *Privacy and harassment *Legal issues inc. super injunctions *UK Internet regulation *Libel and slander *Protection of under 18s from sexual content, graphic violence and gore, controversial/sensitive issues e.g. self-harm and suicide. *Public interest	
OfCOM Regulate broadcast media in the UK – TV and Radio	The Office of Communications is the government-approved regulatory and competition authority for the broadcasting, telecommunications and postal industries. Has wide-ranging powers across the television, radio, telecoms and postal sectors. It has a statutory duty to represent the interests of citizens and consumers by promoting competition and protecting the public from harmful or offensive material.
IPSO Regulate Magazines in UK	The Independent Press Standards Organisation is the independent regulator for the newspaper and magazine industry in the UK. They hold newspapers and magazines to account for their actions; protect individual rights, uphold high standards of journalism and help to maintain freedom of expression for the press. Making sure editors follow the editor's code. They can make newspapers and magazines publish corrections or adjudications if they breach the Editors' Code (including on their front page).
Impress	Impress are a state approved press regulator. Both IPSO and Impress have been set up following the Leveson Report; most newspapers are currently under IPSO.
ASA Advertising Standard Authority	The Advertising Standards Authority (ASA) works to make sure that all UK advertising is legal, decent, honest and truthful. It is funded by a levy on advertising space, but operates independently from advertisers and the government. As well as proactively checking ads from the many millions that appear every year in the UK, the ASA acts on complaints to make sure that consumers are protected from misleading, harmful or offensive ads. Even a single complaint can lead to a formal investigation and an ad being withdrawn.
VSC The Video Standards Council	In 2012 the PEGI system was incorporated into UK law and the VSC was appointed as the statutory body responsible for the age rating of video games in the UK using the PEGI system. The Games Rating Authority (GRA) is a sub-arm of the Video Standards Council (VSC), and exists to specifically licence the release of 12, 16 and 18 PEGI rated video games in the UK.
PEGI Pan European Game Information	Pan European Game Information is a European video game content rating system established to help European consumers make informed decisions when buying video games or apps through the use of age recommendations and content descriptors. The PEGI system is now used in more than thirty countries and is based on a code of conduct, a set of rules to which every publisher using the PEGI system is contractually committed. PEGI self-regulation advise the suitability and content of a game for a certain age range based on the games content. The age rating is not intended to indicate the difficulty of the game or the skill required to play it.
BBFC British Board of Film Classification	The BBFC is responsible for the national classification and censorship of films exhibited at cinemas and video works (such as television programmes, trailers, adverts, public information/ campaigning films, menus, bonus content etc.) released on physical media within the UK. Working as an independent, self-financing and not-for-profit media content regulator, the BBFC operates transparent, consistent and trusted co-regulatory and self-regulatory classification and labelling systems in the UK. Part of their mission is to: empower the public, especially parents, to make informed viewing choices and recognise and respect adult freedom of choice within the law.
Online Regulation	A hotly contested media and current affairs topic. With dangers of human trafficking, pornography, terrorism, piracy and copyright on the web and the 'dark web', governments are trying to regulate and pass laws to control it. However, freedom of speech, freedom of choice, surveillance and privacy are also issues that people do not want to give up. The high court have ordered six of the leading UK internet service providers to block a total of 93 sites that illegally allow the sharing and downloading of music and film. There are a number of laws that people must abide by on the internet including not spreading hate speech and not threatening to kill anyone – just like outside of cyberspace. If you are creating a website there are a number of other legalities and they depend on the type of website e.g. business or otherwise. Under the 'The Privacy and Electronic Communications Regulations (EC Directive) Regulations 2003': In General: *Users must be able to opt out of any disclosure. *Users must be advised who will be using the information and who it may be disclosed to *Users must be advised of Cookie usage. And under the 'Accessibility -The Disability Discrimination Act 1995' In General: *Companies must ensure that their business websites can be accessed by disabled users. *If you supply goods or services, disabled users, including the partially sighted and the blind, using special technology must be able to view/read the pages within the website. *Any business with websites that are "not seen to be complying with the current regulations" are liable to prosecution and heavy fines. Plus, the Internet Watch Foundation works with internet service providers to block abusive content online. Clearly there is a myriad of regulations and laws concerned with the internet, but the key debate is around net neutrality and keeping the internet free and open for people to make their own choices (Creative Commons is a great example of this), but this may leave vulnerable people open to exploitation and it may allow many other nefarious happenings to occur.

Media Audiences

GCSE Media Studies

You will study media audiences, considering aspects such as the targeting of mass and specialised niche audiences, the categorisation and construction of audiences, as well as how audiences' use of and responses to the media reflect identity and social, cultural and historical circumstances. Audiences can be referred to as **customers, consumers, users, and prosumers** (people who create media too). Remember without an audience media products wouldn't exist.

Key Points

People are not helpless victims of all powerful media, but **actively** use media to fulfil their various needs:
***Escape** — Some media texts allow the user to escape from reality. ***Social interaction** — People create personal relationships with the characters in a media text. It also creates a common ground for conversation in people's every day lives. ***Identify/relate** — People often identify a part of themselves in a media text, either through character or circumstance. ***Inform and Educate** — the audience gain an understanding of the world around them by consuming a media text, for example print and broadcast news. ***Entertainment** - consumed purely for entertainment purposes e.g. humour, shock, tension, etc.

Hypodermic Needle Model (1920s) A first attempt to explain how mass audiences might react to mass media. The theory suggests how audiences **passively** receive the information transmitted via a media text without any attempt to process or challenge the data. (**Albert Bandura**)
Two-Step Flow (1940) theory of mass communication. Suggests that the information does not flow directly from the text into the minds of the audience but is filtered through 'opinion leaders' who then communicate it to their less active associates, over whom they have influence. **Lazarsfeld, Berelson and Gaudet** This model has been superseded by the **Multi-flow Theory** where users are part of the flow of communication as media producers.

Based on **encoding/decoding Model** of the relationship between text and audience. The text is encoded by the producer, and decoded by the reader. The producer can position the audience by using recognized codes and conventions, and by drawing upon audience expectations. **Stuart Hall**
Reception Analysis is about looking at the different ways the audience 'decode' media. This is influenced by gender, context of the time and place in society. audiences tend to fall into three groups based on the different way they 'read' media texts: **Preferred/ dominant reading** (what producers wish you to think); **Oppositional reading** (having a completely different view of a product or message than what the producers want) and **Negotiated reading**.

Audiences need to be categorized by media companies so they know who their target audiences are. They also need to be defined for advertisers. For example NME magazine tell advertisers who their typical audience is so companies that want to advertise in their magazine can see if it is right for their target market. Audiences are categorized through focus groups, surveys, questionnaires, interviews, data-mining, etc.

Audience are categorized in many different ways from their basic information (**demographics**) to their personality and media habits (**psychographics**). The most predominate categorization is NRS socio-economic categories A, B, C1, C2, D, E.

Audiences not only identify and relate to characters and personalities in the media, but we also develop an understanding of our own identity through the media e.g. chavs, surfer, hippy, etc. We can also aspire and desire to be like personalities in the media. Plus, our own identity and how we 'see' ourselves means we interpret media products differently to others, who may feel different about what themselves.

Audiences have changed from consumers to consumers, users and producers.

Audience theory definitions		Vocabulary
Mass audiences	Mass audience – A large audience made up of many different demographics. Often termed 'broadcast audience'. Those who consume mainstream or popular texts such as soaps or sitcoms. Media and communication that targets a very large group of people (women, men, children, adults etc).	1. Active users
Niche audiences	Niche audience – much smaller but very influential. A niche audience is a small, select group of people with a very unique interest. They have a lot of passion for certain subjects e.g. true fans/super fans/fandoms, who may participate in producing their own media (see UGC)	2. Audience fragmentation
Primary and secondary audiences	A primary audience are the first demographic of people targeted by media producers for their product e.g. Males for a men's lifestyle magazine. The secondary audience are other people who may consume/use the media product too e.g. fans of The Foo Fighters, who don't normally buy the men's lifestyle magazine but will because Dave Grohl is on the front cover.	3. Citizen Journalists
Audience 2.0	Audience 2.0 is a term to define the modern audience. People who actively use and produce media online.	4. Consumers/ users
Demographics	A statistical view of a population, generally including class (A, B, C1, etc), age, gender, income, schooling, occupation and so on.	5. Cultural imperialism
Psychographics	The study and measure of attitudes, values, lifestyles, and opinions, as for marketing purposes. Can include other media products they consume, hobbies and interests.	6. Demassification
Digital natives and digital immigrants	Digital natives are people who have grown up in the digital age. Generally people born after 1980. These include millennials and generation Z. Digital immigrants are people born before 1980 who have had to learn to use digital equipment, including the internet, in later life.	7. Demographic
Data-mining	Online companies harvest our data from social networks, website registrations, GPS signals, etc, and use this information to make product recommendations to us and sell our details to marketing companies.	8. Desensitisation
Crowd-funding	Crowdfunding is the practice of funding a project or venture (e.g. films, music albums) by raising monetary contributions from a large number of people or audience/fans. Crowdfunding is a form of crowdsourcing and of alternative finance. Sites like Kickstarter and indiegogo are used to do this.	9. Digital immigrants
Demassification	Entertainment for everyone where media is broken down to meet the specific needs of individuals. For example, genres, fashions, styles, magazines etc.	10. Digital narratives
Globalisation	With the use of the internet and electronic media the world has become a smaller place for consumers to navigate and participate with a global audience. We live in a 'Global village'.	11. Digital panopticon
User generated content (UGC)	Any form of content created by users of a system or service, which is available to the public on that system. E.g. comments on news articles, facebook, youtube, etc.	12. Folksonomy
Citizen Journalism	Ordinary people take an active role in gathering and reporting information and news	13. Fans

NRS Audience Categories		
Social Grade	Social Status	Occupation
A	upper middle class	higher managerial, administrative or professional
B	middle class	intermediate managerial, administrative or professional
C1	lower middle class	supervisory or clerical, junior managerial, administrative or professional
C2	skilled working class	skilled manual workers
D	working class	semi and unskilled manual workers
E	those at lowest level of subsistence	state pensioners or widows (no other earner), casual or lowest grade workers

Representation and Identity GCSE Media Studies		Key Considerations		Vocabulary	
Representation: The way in which key groups or aspects of reality are presented by the media, e.g. gender, race, age, the family, etc. Literally, a re-representation or constructed version of that which is shown. Through selection, manipulation, organising and focusing, and using codes and conventions, these aspects are represented to us often with an ideological purpose. Identity: Representation is a element of identity. Identity is the way we see ourselves and the way different groups see us. We have a cultural and a personal identity. Identity is not fixed, but constructed and evolving over time – it is now less fixed than ever due to pluralisation (many more media products available than ever before). Collective identity is based around groups and self-identity is how someone defines/perceives themselves. We can then self-represent through our own media output.		*Who or what is being represented? (age, gender, ethnicity, place, theme, etc) *Where? When? (Context) *How? Stereotypically? Counter-stereotypically? Negatively? Positively? Misrepresented? Underrepresented? Language, codes and conventions? *By whom? (Institution) *To whom? (Audience/users) *Why? (ideology)		1. Stereotypes	
		Purpose	All products have a specific purpose e.g. to entertain, inform, persuade. The purpose of a product will influence the representation of, for example, real events, issues, social groups and individuals.	2. Counter-stereotypes	
		Stereotype functions	Stereotypes are often used as a 'shortcut' as they categorise a particular group by a narrow range features e.g. all men are brave. Functions of stereotypes include: * Humour – exaggeration of stereotypes for comedic effect. * A 'shortcut' to communicate a clear and immediate message to the audience.	3. Underrepresentation	
		Stereotypes and social groups	Stereotyping happens when one social group in society comes to be recognised by a particular set of characteristics. It is often the case that the stereotyped group is a less powerful group in society (e.g. a minority group). Stereotypes vary over time due to social and cultural changes (e.g. the feminist movement), where some stereotypes become less acceptable and other, more contemporary, stereotypes replace them.	4. Misrepresentation	
		Underrepresentation and misrepresentation	Traditionally, the media industries have been controlled by more powerful groups in society and media products have tended to reflect dominant views about minority or less powerful groups. As a result, certain groups (such as women, minority ethnic groups and people with disabilities) have often been underrepresented or misrepresented.	5. Marginalisation	
		Ideology	Some dominant/universal values and beliefs (ideologies) tend to be reinforced in a range of media products (e.g. we should get married and have children). Some viewpoints, messages, values and beliefs are more socially/culturally specific e.g. the representation of women in society at a particular time may reflect patriarchal or feminist values .	6. Discrimination/Prejudice	
		Contextual factors	The social, cultural and historical context of a product can influence the ways in which representations are constructed (and interpreted). For example, the historical posters construct representations of gender that reflect the society and culture in which they were produced, and convey messages about male power and dominance in society in the 1950s and 60s.	7. Dominance	
		Interpretations and perspectives	Audiences are active and will interpret and respond to media representations in different ways. Factors such as an individual's background, age, gender, ethnicity, etc. will influence the way they interpret representations, as will their values and beliefs.	8. Patriarchal	
		David Gauntlett - Theories of identity believes...	Whilst in the past the media tended to convey singular, straightforward messages about ideal types of male and female identities, the media today offer us a more diverse range of stars, icons and characters from whom we may pick and mix different ideas. Gauntlett wrote: 'Identity today is seen as more fluid and transformable than ever before', 'Popular culture offers us a range of stars, icons and characters from whom we can acceptably borrow ideas from bits of their public persona for use in our own.'	9. Realism	
		Beginning analysis of representation...		10. Mediation	
		In this over the shoulder shot the little girl is represented as counter-stereotypically creepy. This goes against the stereotype of innocent ideas of young children and how weak and vulnerable they can be. However, it is a convention of horror films to include creepy children, so it fits well with the genre and the audience's expectations. The dark low-key lighting, coupled with the jumpy music make the audience fearful of the child, as they are on-edge and she seems unpredictable...		11. Positive/negative	
				12. Homogenisation	
				13. Objectification	
				14. Perspective	
				15. Ideology	
				16. Identity and self-representation	
				17. Feminism	
				18. Masculinity/Femininity	
				19. Pluralisation	
				20. Liberalism	
				21. The other	

Representation and Identity – Knowledge Organiser

GCSE Media Studies

Old-fashioned/traditional/generic/negative stereotypes

Ability and Disability	- Physically Disabled / Disfigured – often shown as outsiders, unable to do normal things. - Mentally disabled – Often shown as strange, odd, childlike, outsiders. - Able Bodies / Minded – often shown as “normal” and “ideal”.
Ethnicity	- White people – often shown as good, pure, heroes, strong, or sometimes racist - Black people – often shown as exotic, strange, tribal, criminal, poor - Asian people (Chinese, Korean etc) – often shown mainly as intelligent, submissive (quiet and shy), nerdy, interested in technology - Indian people – often shown as being poor, living in large families, very traditional, working in corner shops - Middle Eastern people (arabs etc) – often shown as being terrorists, violent, aggressive, rich - Immigrants – often shown as being a drain on society, criminals, illegal, bad for Britain, taking British jobs
Sexuality	- Gay Men – camp, feminine, funny, outrageous OR very attractive, and sleep around. - Lesbian Women – Butch, manly, blunt, man haters.
Class and Status	- Upper Classes (eg Made in Chelsea) – often shown as rich, clever, snobby, looking down on others, very posh. - Middle Classes (eg My Family) – often shown as “normal”, good family values, well behaved. - Working Classes (eg Coronation Street) – often shown as poorer, less happy, less intelligent, but with strong community links. - Lower / Under Classes (eg Shameless) – often shown as being criminals, no family values, no community links, bad parents etc.
Age	- Children – often shown as being young, innocent, naive, pure, sweet, helpless, powerless - Teenagers – Often shown as being aggressive, moody, lazy, criminals, hate school, 20's-30's – Often shown as the ideal age for love, parties, fun, making money, being glamorous and attractive. In films the heroes are often this age group. - Middle Aged – often shown as being past it, unattractive, not aware of popular culture, uncool, boring lives, dominant over others, no real connection to their kids, grumpy. In films the villains are often from this age group. - Elderly – often shown as being unattractive, slow, weak, ill, confused, pathetic, powerless, not important, dependent on others.
Male Stereotypes	- Traditional masculine man – often shown as being muscly, strong, brave, heterosexual, working in manual jobs such as building, plumbing etc. They are often aggressive, tall, and dominant over women, works to provide for family, does no cleaning, cooking or childcare. - New Man – Often shown as being less masculine but still heterosexual, very peaceful, looks after the family, stays at home to look after family, does cleaning and cooking etc, shown as equal to women. - Gay Man – Often shown as being very feminine, weak, working in jobs such as fashion or hairdressing, bitchy, etc. - Metrosexual – Cares about how they look, so very fashionable, has a beauty routine, could hold a conversation about style and fashion, expresses emotions easily, heterosexual, a player, a city dweller.
Female stereotypes	- Traditional feminine woman – often shown as being girly, likes pink, wears dresses, does feminine jobs such as working in fashion, hairdressing or stays at home to look after the children, needs a man to cope, weak, scared of things, needs rescuing, pure and innocent. - Sexy woman – very flirty, dresses in a revealing way, more powerful than traditional women, uses men to get what she wants, no loyalty to other women, bitchy. - Lesbian Woman – Often shown as dressing in a masculine fashion, doing masculine roles, hating men, looking masculine.

Expressions élémentaires

- Je m'appelle.../Mon nom est... Ça s'écrit...
- Le nom de mon père est...
- J'ai quinze ans et demi.
- Il vient d'avoir six ans.
- C'est une fille/un garçon.
- J'aurai bientôt dix-sept ans.
- J'aurai dix-sept ans le 17 septembre.
- J'ai douze ans environ.
- Mon anniversaire, c'est le 17 août.
- Je suis né(e) le 17 septembre 1991.
- Il est mort le 20 août 2004.
- Mes sœurs sont plus âgées que moi.
- Mon père a cinq ans de plus que ma mère.
- Il est âgé de quarante ans.
- J'ai une famille nombreuse.
- Nous sommes six dans notre famille.
- J'ai deux sœurs et un demi frère.
- Je n'ai ni frère ni sœur : je suis enfant/fille/fils unique.
- Je suis le (la) cadet(te).
- Je suis l'aîné(e) dans ma famille.
- Je viens de l'Angleterre.
- Je suis né(e) en Écosse.
- Je suis anglais(e)/gallois(e)/écossais(e)/irlandais(e).
- J'habite à Londres.
- J'habite en ville/dans un village/dans le centre-ville/en banlieue/à la campagne/à la montagne/au bord de la mer.
- J'habite près/en face de...
- J'habite avec ma mère...
- Nous habitons dans une maison/un appartement/une H.L.M./une ferme.
- Nous habitons dans un lotissement en banlieue.
- Mon adresse est...

Basic expressions

- I'm called.../My name is... It's spelt...
- My father's name is...
- I am 15 and a half years old.
- He's just been six years old.
- She's a girl/he is a boy.
- I'll soon be 17 years old.
- I'll be seventeen on 17th September.
- I'm about twelve years old.
- My birthday is on 17th August.
- I was born on 17th September 1991.
- He died on 20 August 2004.
- My sisters are older than me.
- My father is five years older than my mother.
- He's 40 years old.
- I have a large family.
- There are six people in our family.
- I have two sisters and a half-brother.
- I have neither brothers nor sisters; I'm the only child/daughter/son.
- I am the youngest.
- I'm the oldest (child) in my family.
- I come from England.
- I was born in Scotland.
- I'm English/Welsh/Scottish/Irish.
- I live in London.
- I live in the town/in a village/in the town centre/in the suburbs/in the countryside/in the mountains/by the seaside.
- I live near/opposite...
- I live with my mother...
- We live in a house/an apartment/a council flat/a farm.
- We live on an estate in the suburbs.
- My address is...

Description physique

- Mon oncle est grand/petit/gros/mince.
- Ma tante est jolie/moche/jeune/vieille.
- Mon meilleur copain est de taille moyenne.
- Je porte des lunettes (de soleil)/des boucles d'oreilles.
- Ma sœur met du rouge à lèvres/du vernis à ongles/du maquillage

Physical description

- My uncle is tall/small/fat/slim.
- My aunt is pretty/ugly/young/old.
- My best friend is of average size.
- I wear (sun-) glasses/earrings
- My sister puts on lipstick/nail varnish/make-up.

- Elle a le visage rond.
- J'ai les yeux bleus/verts/gris/noirs/marron/noisette.
- Il a les yeux bleu clair/foncé
- J'ai les cheveux courts/longs/mi-long.
- Elle a les cheveux noirs/gris/châtain/bruns/roux/blonds.
- Il a les cheveux (très) frisés/bouclés/raides/lisses.
- Il est (à moitié) chauve.

- She's got a round face.
- I have blue/green/grey/black/brown/hazel eyes.
- He's got light/dark blue eyes.
- I've got short/long/mid-length hair.
- She's got black/grey/light brown/dark brown/ginger/blond hair.
- He's got (very) curly/wavy/straight/smooth hair.
- He's (half) bald.

Rapports avec les autres

- Je trouve mon frère adorable/affreux/amusant/ennuyeux/ bruyant...
- Ce que je déteste chez ma sœur, c'est qu'elle est trop bavarde/capricieuse...
- Si j'avais un petit frère, je voudrais qu'il soit drôle/sportif/plein de vie...
- La qualité principale de ma mère, c'est la patience/la générosité/la gentillesse...
- Il est casse-pieds.
- Je le trouve insupportable parce qu'il est snob.
- Je me dispute tout le temps avec mon père parce qu'il est têtu/trop sévère.
- Je m'entends très bien avec ma sœur parce qu'elle est facile à vivre.
- Je ne l'aime pas trop; il est trop sûr de lui.
- Je n'ai pas de patience avec ma petite sœur parce qu'elle m'énervé.
- Mon cousin n'a pas le sens de l'humour.
- C'est chouette/difficile de vivre ensemble.
- J'aime avoir ma propre chambre parce que...
- Je déteste/J'aime bien les repas en famille parce que...
- Mes parents sont divorcés/séparés/mariés depuis...

Getting on with others

- I find my brother adorable/awful/entertaining/boring/noisy...
- What I hate in my sister is that she is too chatty/whimsical...
- If I had a younger brother, I'd like him to be funny/sporty/full of life...
- My mother's main quality is patience/generosity/kindness...
- He is a spoilsport.
- I find him insufferable because he is a snob.
- I argue all the time with my father because he is stubborn/too strict.
- I get on very well with my sister because she is easy to get on with.
- I don't like him very much; he's too sure of himself.
- I have no patience with my little sister because she gets on my nerves.
- My cousin hasn't got a sense of humour.
- It's good/difficult to live together.
- I like to have my own room because...
- I hate/I like family meals because...
- My parents are divorced/separated/married since...

Parler des métiers

- Mon père est dentiste.
- Ma mère travaille dans l'enseignement/la santé...
- Ma mère travaille chez un épicier/dans une banque...
- Mon père travaille comme informaticien.
- Mon frère aîné est employé de banque/de poste.
- Ma sœur est au chômage/sans travail.

Talking about jobs

- My father is a dentist.
- My mother works in the field of education/health...
- My mother works at a grocer's/in a bank...
- My father works as a computer scientist.
- My older brother is a bank/post office employee.
- My sister is unemployed/without job.

Avant l'école

- D'habitude.../En général...
- Le matin, je me réveille à...
- À quelle heure est-ce que tu te lèves ?
- Je me lève à sept heures,
- Je me réveille de bonne heure.
- Elle se lève vers sept heures et demie.
- Tu prends une douche le matin ?
- Non, je ne douche pas le matin; je prends une douche ou un bain le soir.
- D'abord je me lave et puis je m'habille.
- Normalement je mets mon uniforme scolaire mais le week-end je mets un pantalon et un T-shirt.
- Après avoir fait la toilette, je prends mon petit déjeuner, normalement vers huit heures moins le quart.
- Ensuite je me rase, je me brosse les dents et je me peigne.
- Comment vas-tu au collège ?
- Je vais au collège à pied/en voiture/en vélo/en bus/avec mes parents/un(e) ami(e)/un groupe d'amis/mon frère/ma sœur.
- D'habitude je quitte la maison vers huit heures et demie et j'arrive au collège à neuf heures moins dix.
- Chaque matin je dois me dépêcher; c'est affreux.
- Le premier cours commence à neuf heures moins cinq.
- J'ai cours de neuf heures moins cinq à trois heures et demie de l'après-midi.

Before school

- Usually.../Generally...
- In the morning I wake up at...
- What time do you get up?
- I get up at seven o'clock.
- I wake up early.
- She gets up at about half past seven.
- Do you have a shower in the morning?
- No, I don't shower in the mornings; I have a shower or a bath in the evenings.
- First I have a shower and then I get dressed.
- Normally I put on my school uniform but at weekends I put on a pair of trousers and a T-shirt.
- After having washed, I have my breakfast, normally around a quarter to eight.
- Then I shave, I brush my teeth and I comb (my hair).
- How do you get to school?
- I get to school on foot/by car/by bicycle/by bus/with my parents/a friend/a group of friends/my brother/my sister.
- Usually I leave home around half past eight and I get to college at ten to nine.
- I have to rush every morning; it's awful.
- The first lesson starts at five to nine.
- Lessons last from five to nine until half past three in the afternoon.

Après l'école

- À quelle heure se terminent les cours ?
- Les cours se terminent à quinze heures et demie.
- Que fais-tu après le collège ?
- D'habitude, je fais mes devoirs en rentrant du collège/après mon entraînement de foot.
- Je fais du sport. Je joue au...
- Je m'entraîne tous les jours/deux fois par semaine.
- Parfois je suis fatigué(e), donc je fais la sieste.
- Quand je rentre chez moi, j'ôte immédiatement mon uniforme scolaire.

After school

- At what time do lessons finish?
- Lessons finish/school finishes at half past three.
- What do you do after school?
- I usually do my homework when I get back from school/after my football practice.
- I play sports. I play...
- I train everyday/twice a week.
- Sometimes I am tired so I take a nap.
- When I get back home I immediately take off my school uniform.

- Ensuite je prends un casse-croûte/quelque chose à manger/à boire.
- Après avoir fait mes devoirs, je dois aider ma mère.
- D'habitude j'aide à préparer le dîner ou je m'occupe de mes sœurs et mes frères.
- Si j'ai l'occasion, je sors après avoir fini mes devoirs.
- Chez nous, on mange en famille à six heures et demie.
- Après le dîner je regarde la télé ou je lis un livre.
- Parfois j'envoie des textos à mes amis.
- En semaine je me couche vers neuf heures et demie mais le week-end je me couche plus tard.
- Avant de me coucher je me déshabille et je prends une douche.
- Ensuite je me lave les cheveux/brosse les dents.
- Pour m'endormir j'écoute la radio/de la musique.
- Ce soir, je vais me coucher à dix heures.

- Then I have a snack/something to eat/to drink.

- After doing my homework, I have to help my mother.
- Usually, I help to prepare dinner or I look after my sisters and brothers.
- If I get the chance, I go out after finishing my homework.
- At home, we eat as a family, at half past six.
- After dinner I watch telly or read a book.
- Sometimes I text my friends.
- During the week I go to bed around half past nine but at the weekend I go to bed later.
- Before going to bed I undress and I take a shower.
- Then I wash my hair/brush my teeth.
- I listen to the radio/music to fall asleep.
- Tonight, I will go to bed at ten o'clock.

Week-end typique

- Je trouve ma semaine ennuyeuse mais j'adore le week-end parce que...
- Le week-end...
- Je me lève/couche (très) tard.
- Je me lève/couche vers onze heures et demie.
- Je fais la grasse matinée.
- Je regarde des vidéos tout l'après-midi.
- Le week-end, j'aime sortir avec mes copains. On va souvent au cinéma. J'aime aussi aller en discothèque de temps en temps.
- Je retrouve mes copains à la maison des jeunes.
- Je travaille comme vendeur (vendeuse) dans un magasin.
- Je distribue des journaux.
- Je travaille dans un fast-food.
- Le week-end je mets du maquillage et du vernis à ongles, mais je n'ai pas le droit de me maquiller quand je vais au collège.
- Ce week-end, je vais aller au restaurant avec mes parents.
- Je vais jouer au foot avec des copains.

Weekend routines

- I find my weekly routine boring, but I love the weekend because...
- At weekends...
- I get up/go to bed (very) late.
- I get up around half past eleven.
- I stay in bed late.
- I watch videos all afternoon.
- At the weekend, I like going out with friends. We often go to the cinema. I also like to go to the disco from time to time.
- I meet my friends at the youth club.
- I work as a shop assistant in a shop.
- I'm a paperboy.
- I work in a fast-food restaurant.
- At the weekend I put on make-up and nail varnish but I'm not allowed to put make-up on when I go to school.
- Next weekend, I am going to go to a restaurant with my parents.
- I am going to play football with friends.

GERMAN Core Language

Time words

jetzt - now
früher - before
danach - after
heute - today
gestern - yesterday
morgen - tomorrow
noch mal - again
immer - always
oft - often
manchmal - sometimes
nie - never
letzte Woche - last week
nächste Woche - next week



Opinions

Ich denke, dass - I think that
Ich glaube, dass - I believe that
es scheint mir, dass - it seems that
Meiner Meinung nach - in my opinion
Ich mag ... (nicht) - I (don't) like...
Ich liebe - I love
Ich hasse - I hate
Ich finde, dass ... - I find that ...



FUTURE

Ich will + infin.	I want to
Ich möchte + infin.	I would like (to)
Ich werde + infin.	I will

Personal Pronouns

ich (I)	habe
du (you)	hast
er/sie/es (he/she/it)	hat
wir (we)	haben
ihr (you plural)	habt
sie (they) / Sie (you formal)	haben

HABEN - to have

ich (I)	I have
du (you)	you have
er/sie/es (he/she/it)	he/she/it has
wir (we)	we have
ihr (you plural)	you have
sie (they) / Sie (you formal)	they/you have

SEIN - to be

ich (I)	I am
du (you)	you are
er/sie/es (he/she/it)	he/she/it is
wir (we)	we are
ihr (you plural)	you are
sie (they) / Sie (you formal)	they/you are

MACHEN - to do

ich (I)	Ich mache
du (you)	machst
er/sie/es (he/she/it)	macht
wir (we)	machen
ihr (you plural)	macht
sie (they) / Sie (you formal)	machen

CONJUGATION!

Referring to places

hier - here
da(rüber) - (over) there

Making links

oder - or
auch - also
aber - but
mit - with
ohne - without
weil - because
obwohl - although



Referring to things

dies(e/s) - this
das - that
etwas - something
(ein) andere - (an) other
viel - a lot
viele - many
ein bisschen - (a) little
sehr - very
alles - all/everything
zu (viel) - too (much)

MODALS

Ich kann + infin. - I can
Ich muss + infin. - I must
Ich darf + infin. - I'm allowed
Ich soll + infin. - I should

Adjectives

gut ≠ schlecht
toll ≠ schrecklich
prima ≠ furchtbar
interessant ≠ langweilig

PAST (imperfect)

Ich war - I was
Ich hatte - I had
Ich ging - I went
Ich machte - I did
Ich sah - I saw
Ich spielte - I played
Ich aß - I ate
Ich trank - I drank
Ich fuhr - I travelled
Ich arbeitete - I worked

PAST (perfect)

Ich bin ... gegangen - I went (by foot) / have gone
Ich bin ... gefahren - I travelled / have travelled
ich habe ... gemacht - I did / have done
Ich habe ... gesehen - I saw / have seen
Ich habe ... gespielt - I played / have played

Saying what you did - TWO options!

GIVING OPINIONS

Me gusta	I like
No me gusta	I don't like
Me gusta mucho	I really like
No me gusta nada	I don't like it at all
Me encanta/Me chifla	I love
Odio	I hate
No aguanto	I can't stand
Creo que/Pienso que	I think that
En mi opinión	In my opinion
Prefiero	I prefer
Personalmente	Personally

CONJUNCTIONS - CONNECTIVES

Y	And
Pero	But
Porque	Because
También	Also
Sin embargo	However
Aunque	Although
Además	Moreover
Así que	So
Por un lado	On one hand
Por otro lado	On the other hand

SEQUENCERS

Primero	First
Luego	Then/Next
Después	Afterwards
Más tarde	Later on
Finalmente	Finally

TIME MARKERS - PRESENT

Normalmente	Normally/Usually
Siempre	Always
Nunca	Never
A veces	Sometimes
Cada <u>día</u>	Every <u>day</u>
Ahora	Now

TIME MARKERS - PAST

Ayer	Yesterday
El <u>lunes</u> pasado	Last <u>Monday</u>
La semana pasada	Last week
El fin de semana pasado	Last weekend
El mes pasado	Last month
El año pasado	Last year
Anoche	Last night

TIME MARKERS - FUTURE

Mañana	Tomorrow
El próximo <u>lunes</u>	Next <u>Monday</u>
La próxima semana	Next week
El próximo fin de semana	Next weekend
El próximo mes	Next month
El próximo año	Next year

QUANTIFIERS - INTENSIFIERS

Muy	Very
Bastante	Quite
Un poco	A little/A bit
Cada	Every/Each
Demasiado	Too (much/many)
Mucho	much/many/lots of/a lot of

USEFUL VERBS

Es	He/She/It is
Son	They are
Soy/Estoy	I am
Tengo	I have
Hay	There is/are
Puedo	I can
Quiero	I want
Hago	I do/make
Voy	I go

QUESTIONS

¿Qué?	What?
¿Por qué?	Why?
¿Dónde?	Where?
¿A dónde?	Where (to)?
¿Cuándo?	When?
¿Cómo?	How?
¿Cuánto?	How much?
¿Quién?	Who?

THE WEATHER

Hace sol	It is sunny
Está nublado	It is cloudy
Está lloviendo	It is raining
Hace frío	It is cold
Hace calor	It is hot
Hace viento	It is windy
Está nevando	It is snowing
Hay niebla	It is foggy

ADJECTIVES - POSITIVE

Divertido	Funny/Amusing
Interesante	Interesting
Genial	Great
Guay	Cool
Entretenido	Entertaining
Emocionante	Exciting
Estimulante	Stimulating
Relajante	Relaxing
Increíble	Incredible
Útil	Useful
Sensacional	Sensational
Agradable	Nice
Fácil	Easy

ADJECTIVES - NEGATIVE

Aburrido	Boring
Molesto	Annoying
Horrible	Awful
Raro	Strange/Rare
Estresante	Stressful
Agotador	Tiring
Inútil	Useless
Asqueroso	Disgusting
Difícil	Difficult
Irritante	Irritating

MAKING COMPARISONS

Más... que	More... than
Menos... que	Less... than



ESPAÑOL

REGULAR VERB TABLES

PRESENT

AR	hablar – to speak
o	hablo
as	hablas
a	habla
amos	hablamos
áis	habláis
an	hablan

ER	comer – to eat
o	como
es	comes
e	come
emos	comemos
éis	coméis
en	comen

IR	vivir – to live
o	vivo
es	vives
e	vive
imos	vivimos
ís	vivís
en	viven

PRETERITE

AR	hablar – to speak
é	hablé
aste	hablaste
ó	habló
amos	hablamos
asteis	hablasteis
aron	hablaron

ER	comer – to eat
í	comí
iste	comiste
ió	comió
imos	comimos
isteis	comisteis
ieron	comieron

IR	vivir – to live
í	viví
iste	viviste
ió	vivió
imos	vivimos
isteis	vivisteis
ieron	vivieron

IRREGULAR VERBS

NEAR FUTURE

voy	a	+	infinitive	I am going to + infinitive
vas	a	+	infinitive	you are going to + infinitive
va	a	+	infinitive	he/she/it is going to + infinitive
vamos	a	+	infinitive	we are going to + infinitive
vais	a	+	infinitive	you are going to + infinitive
van	a	+	infinitive	they are going to + infinitive

Ejemplos – Examples

Voy a jugar – I am going to play

Va a comer – He/She/It is going to eat

Vamos a vivir – We are going to live

IRREGULAR INFINITIVES

ir – to go
salir – to go out
tener – to have
hacer – to do/make
jugar – to play
ver – to see
querer – to want

PRONOMBRES PERSONALES SUBJECT PRONOUNS

Yo	I
Tú	You (singular)
Él/Ella	He/She/It
Nosotros	We
Vosotros	You (plural)
Ellos/Ellas	They



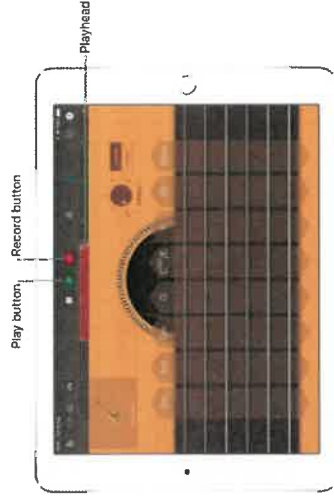
ESPAÑOL I

Year 10 music term 1

Syncing	Matching events on screen to recorded sound.
Theme music	Theme music is music that represents a tv show, place or character.
Lite motif	A short musical idea that represents a character, feeling or place.
Diegetic sound	Diegetic sound is sound that a character would be able to hear if they were in that location.
Non diegetic sound	Diegetic sound is sound that a character would NOT be able to hear if they were in that location.
Soundtracking	Sound tracking is using pre-existing pieces of music in a film.
Foley	Foley is all of the non-musical diegetic sound that is recorded. It is recorded by a foley artist.

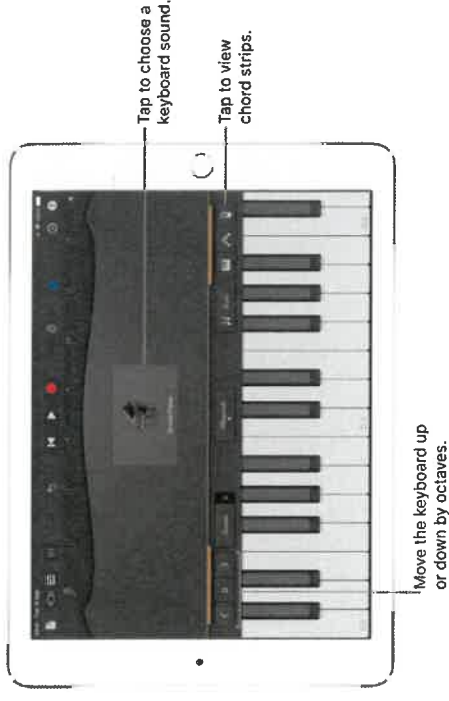
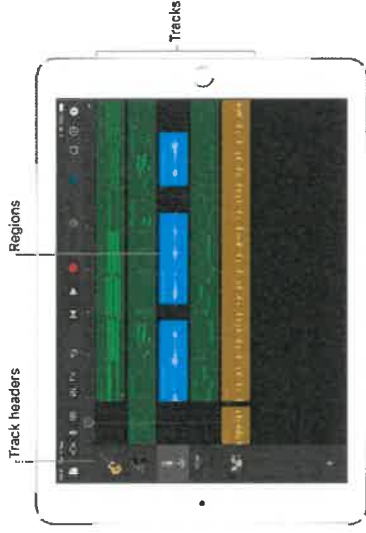
Record a Touch Instrument

1. Tap the Record button  in the control bar.



Recording starts at the current position of the playhead. The ruler shows red.

2. Play the Touch Instrument (or, for the Audio Recorder or Amp, sing or play).



Play chords or bass notes with chord strips

- *Play chords higher or lower:* Tap one of the five upper segments of a chord strip.
- *Play a bass note or sets of bass notes:* Tap one of the three lower segments of a chord strip.
- *Play chords and bass notes together:* Tap an upper segment and a lower segment at the same time.

You can add your own [custom chords](#) to play.

Open the My Songs browser

- Tap the My Songs button  in the control bar.

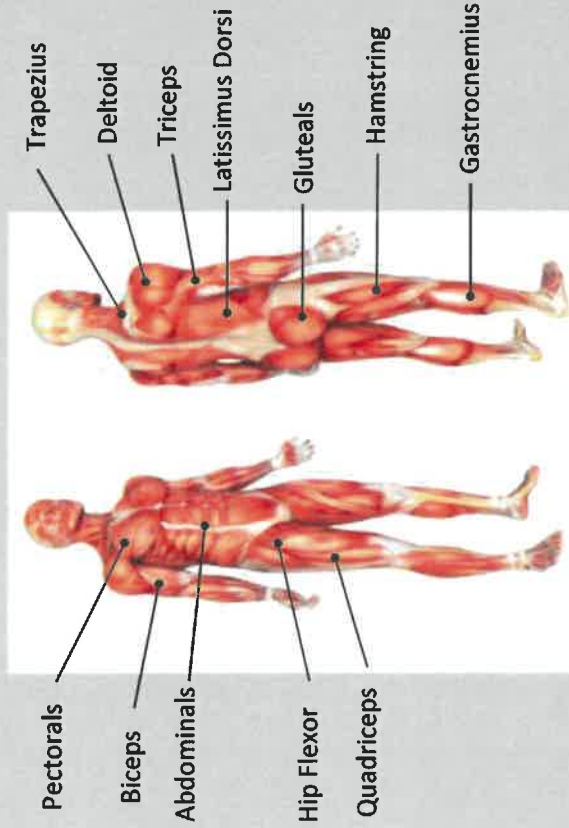
The default view shows songs in their current location on your iPad. Tap Recents in the sidebar to show songs you last worked on.

Create a new song

- In the My Songs browser, tap the Add Song button  in the top-right of the screen.
- The Sound browser opens, where you can choose a Touch Instrument to use in the song.

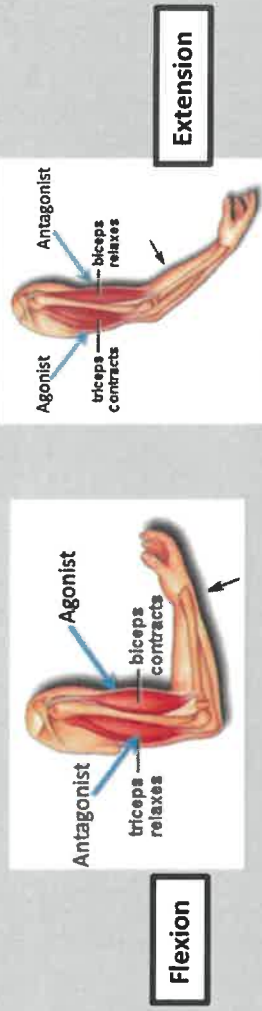
GCSE Physical Education – The structure and functions of the muscular system

Structure of the muscular system



Antagonistic pairs - Muscles are arranged in antagonistic pairs.

As one muscle contracts (shortens) its partner relaxes (lengthens) i.e. *Biceps and Triceps*.



Agonist = the muscle that contracts to produce movement.

Antagonist = the muscle that relaxes to allow the movement to occur.

Fixator = the muscle that works to stabilise the origin of the prime mover (agonist)

Examples in the body:

- Biceps & Triceps
- Quadriceps & Hamstring
- Hip Flexor & Gluteus Maximus

Types of muscle

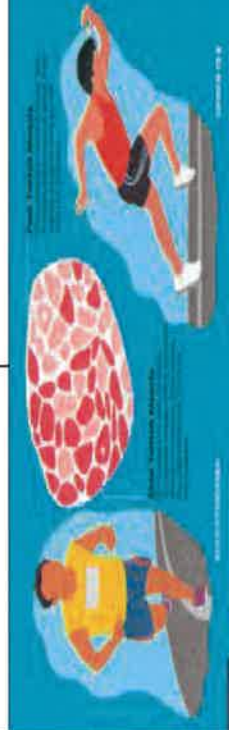


The short term effects of exercise on the muscles:

1. Working muscles produce heat
2. Increased muscle fatigue due to lactic acid accumulation
3. Blood is re-distributed to working muscles (blood shunting)
4. Increase in cross sectional size

Muscle fibre types

Slow twitch muscle fibres (Type I)	Fast twitch muscle fibres (Type II)	Lactic Acid v Oxygen Debt
1. Smaller in size. 2. Work aerobically with high fatigue resistance. 3. Have a good oxygen supply = deep red in colour. 4. They contract slowly, but can work for long periods. Marathon runner	1. Larger in size 2. Work anaerobically & linked to high intensity activities. Are paler (white) in colour and have limited oxygen supply. 4. They contract quickly and powerfully, but tire easily 100/200m runner	1. Lactic acid is built up through lack of oxygen in working muscles and so they fatigue. This causes muscle pain reduces performance. Also linked to DOMS (delayed onset muscle soreness) 2. Oxygen debt has to be 'repayed' when anaerobic work has finished

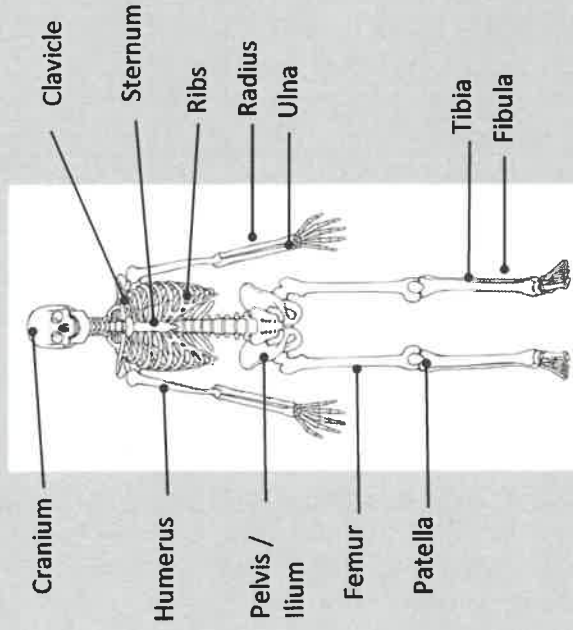


Link of the muscular and skeletal system – both systems work together to produce movement. i.e. a contracting muscle pulls on a bone which changes the angle at a joint.

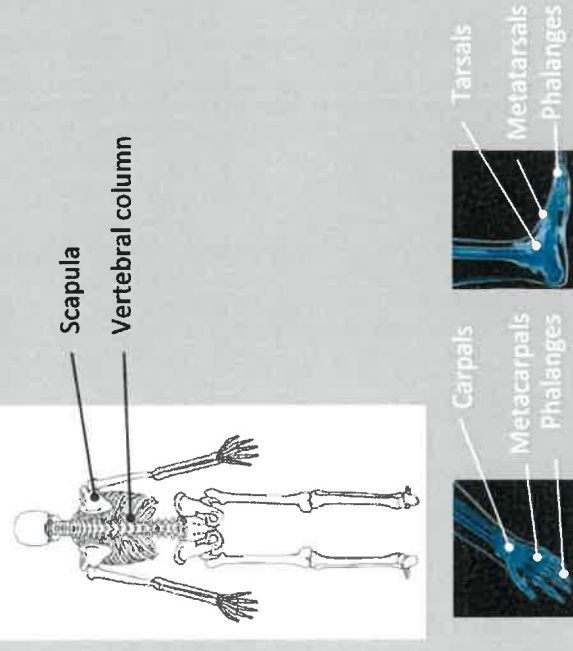


GCSE Physical Education – The structure and functions of the skeletal system

Structure of the skeletal system



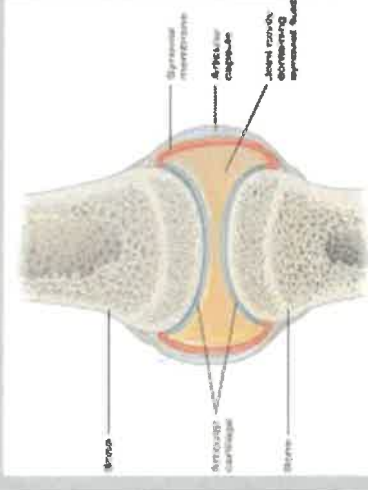
Structure of the skeletal system



Synovial Joints

These are **freely movable** joints where the joint surfaces are covered in **cartilage**, they are connected by a fibrous tissue capsule (joint capsule) and lined with fluid (synovial fluid).

Common joints are hip and shoulder



Function of the skeleton

- **Shape and Support** – posture
- **Movement** - muscle attachment & joint movement
- **Protection** of vital organs
- **Production** – platelets, red and white blood cells
- **Storage** - of minerals (calcium, phosphorus, iron, potassium)

Classification of joint

- **Pivot** (neck – atlas and axis)
- **Hinge** (elbow and knee)
- **Ball and socket** (hip and shoulder)

Connective tissue

Ligaments – attaches bone to bone to add joint stability.

Tendons – attaches muscles to bone and contributes to joint movement as a result of muscle contraction.

Cartilage:

Used to reduce friction at a joint

Hyaline cartilage (articular) – on the ends of bones at a synovial joint to stop rubbing

White Fibro-cartilage – between bones as a shock absorber e.g. vertebrae, knee

Joint movements

Flexion	Adduction	Rotation	Dorsi-Flexion (ankle joint)
Decreasing the angle at a joint (bending)	Limbs moving towards the midline of the body.	A twisting/turning action around a joint.	When the toes are turned up to the body.
Extension	Abduction	Circumduction	Planter-Flexion (ankle joint)
Increasing the angle at a joint (straightening)	Limbs moving away from the midline of the body.	A combination of flexion, extension, adduction & abduction.	When the toes are pointed away from the body.

GCSE Physical Education – The structure and functions of the skeletal system

[illegible]

Keywords:

GCSE Dance Knowledge Organiser

Analyse: Separate information into components and identify characteristics to be able to explain and interpret.

Comment: Present an informed opinion.

Compare: Identify similarities and/or differences.

Consider: Review and respond to information given.

Define: Specify meaning.

Describe: Set out characteristics.

Discuss: Present key points taking into account different ideas, characteristics and/or features.

Evaluate: Judge from available evidence and make an informed design on the effectiveness.

Explain: Set out purposes or reasons.

Give: Produce an answer from recall.

How: State in what ways.

Identify: Name or characterise.

Interpret: Translate information into recognisable form demonstrating an understanding of meaning.

Name: Identify correctly.

Outline: Set out main characteristics.

State: Express in clear terms.

Suggest: Present a possible case or possible answer.

Tick: Put a mark to indicate something is correct.

What: Specify something.

Which: Specify from a range of possibilities.

Why: Give a reason or purpose.

Exam command words

Expressive skills

Projection.
Focus.
Spatial awareness.
Facial expression
Phrasing
Musicality
Sensitivity to other dancers
Communication of choreographic intent

Physical skills

Posture
Alignment
Balance
Coordination
Control
Flexibility
Mobility
Strength
Stamina

Technical skills

Action
Space
Dynamics
Relationships
Timing
Rhythmic content
Moving in a stylistically accurate way

Knowledge, understanding and skills for performance

Mental Skills

Prep for performance:

Systematic repetition
Mental rehearsal
Rehearsal discipline
Planning of rehearsal
Response to feedback
Capacity to improve

During performance:

Movement memory
Commitment
Concentration
Confidence

Safe Practice

Prep for performance:

Warming up
Cooling down
Nutrition
Hydration

During performance:

Safe execution
Appropriate dance wear:
footwear
hairstyle
clothing
absence of jewellery

Knowledge, understanding and skills for choreography

Action

Travel
Turn
Elevation
Gesture
Stillness
Use of different body parts
Floor work
Transfer of weight

Dynamics

Fast/slow
Sudden/sustained
Acceleration/deceleration
Strong/light
Direct/indirect
Flowing/abrupt

Spatial Content

Pathways
Levels
Direction
Size of movement
Patterns
Spatial design

Relationship Content

Lead and follow
Mirroring
Action and reaction
Accumulation
Complement and contrast
Counterpoint
Contact
Formations

Choreographic processes

Researching
Improvising
Generating
Selecting
Developing
Structuring
Refining and synthesising

Structuring devices and form

Binary
Ternary
Rondo
Narrative
Episodic
Beginning/middle/end
Unity
Logical sequence
Transitions

Choreographic devices

Motif and development
Repetition
Contrast
Highlights
Climax
Manipulation of number
Unison and canon

Knowledge, understanding and skills for critical appreciation

Features of production

Staging/set: Eg- projection, furniture, structures, backdrop, screens and features of these such as colour, texture, shape, decoration, materials.

Lighting: Eg- Colour, placement, direction, angles etc.

Properties: Eg- Size, shape, materials, how used etc.

Costume: Footwear, masks, make up, accessories, Features such as colour, texture, material, flow, shape, line, weight, decoration and how they define character or gender, identify characters, enhance or sculpt the body and enhance the action.

Dancers: Number and gender.

Aural setting: Eg: Song, instrumental, orchestral, spoken word, silence, natural sound, found sound, body percussion, style, structure and musical elements such as tone, pitch and rhythm.

Dance for camera: Eg- Placement, angle, proximity, special effects.

Choreography key words

Stimulus: The starting point for a dance piece.

Motif: A short phrase of movement that reflects a stimulus.

Choreographic intention:

What the choreographer would like the audience to learn about the dance.

Choreographic approach:

How the choreographer created movement material eg- improvisation, collaboration, choreographic tasks.

Communication of choreographic intent

Mood
Meaning
Idea
Theme
Style/style fusion

Performance environment

Proscenium arch
End stage
Site-sensitive
In-the-round

GCSE PHOTOGRAPHY

Develop ideas through investigations informed by contextual and other sources, demonstrating analytical and cultural understanding.



Plenty of photos and/o shoots. Successful work is likely to be cohesive (ie: similar, related, planned, etc.) and genuinely influenced by the work of other photographers, artists, designers, or craftspeople.

AO1

Refine ideas through experimenting and selecting appropriate resources, media, materials, techniques and processes.



Choose the right tools resources. Demonstrate technical skills using your camera, the darkroom or Photoshop. Show you can manage and experiment with materials and techniques well. Use your skills to improve your work.

AO2

Record ideas, observations and insights relevant to your intention in visual and/or other forms, demonstrating an ability to reflect on their work in progress.



Take photographs. Make mindmaps, collect images, annotate your work. Compare and contrast different versions of your photos, as well as with the work of others. Evaluate your work and suggest next steps to improve your project.

AO3

Photography Assessment Objectives

Present a personal, informed and meaningful response demonstrating analytical and critical understanding, realising intentions and - where appropriate, making connections between visual, written, oral or other elements.



Complete your project, with a set of prints that are related to previous work (ie: they don't just suddenly appear!). Make prints that have a similar theme or use similar techniques.

AO4

AO1 Contextual understanding	AO2 Experimenting and refining	AO3 Reflective recording	AO4 Personal presentation
Developing your ideas Make mindmaps, collect inspiring images on moodboards. Research lots of relevant photographers. Make comparisons between your images and the work of other photographers. Analyse photographs using KITE. Make this a creative presentation. Prepare photograph plans, showing ideas and intentions, with thumbnail sketches, eg: as storyboards. Take plenty of photos and/or photographs. Successful work is likely to be cohesive (ie: similar, related, planned, etc.) and genuinely influenced by the work of other photographers, artists, designers, or craftspeople. Explain your ideas regularly.	Creative making Choose a range of tools, resources and techniques. Explore and experiment with them. Show technical skill using your camera, the darkroom or Photoshop. Demonstrate you can manage and experiment with materials and techniques well. Show 2-3 alternative edits for each image. Present all images you make or edit (do not delete!). Use your skills to improve and refine your work. Show the stages of your editing, not just the final result. Revisit images to improve and refine them further.	Observation and evaluation Draw sketches for photograph ideas and plans. Take lots of photographs for each shoot. Present all photographs taken (do not delete any!) Show technical skill using your camera. Experiment with camera techniques. Annotate your work. Use WWW and EBI for a page of work rather than individual images. Draw (or trace) composition diagrams. Compare and contrast different versions of your own photos, as well as with the work of others. Evaluate your work and suggest next steps to improve your pictures or project. Create a rating system for your work, eg: a yellow sticker beside your favourite edits.	Final outcomes Your project should start and finish, with linked stages in between. Extend your rating system with red stickers for your best pictures from each photoshoot. Make a small group of 'best-of' photos for each photoshoot after editing. Complete your project with a set of images that are related to previous edits and the photographers you have looked at. Make prints, use mixed media or assemble 3D objects. Your finals should have a similar theme or subject matter, and use similar techniques.

AQA GCSE Biology (Separate Science) Unit 2: Organisation

Principles of Organisation

				
cell	tissue	organ	organ system	organism
Cells are the basic building blocks of all living things.	A group of cells with a similar structure and function is called a tissue.	An organ is a combination of tissues carrying out a specific function.	Organs work together within an organ system.	Organ systems work together to form whole living organisms.

Food Tests (Required Practical)

What are you testing for?	Which indicator do you use?	What does a positive result look like?
sugar	Benedict's reagent	Once heated, the solution will change from blue-green to yellow-red.
starch	iodine	Blue-black colour indicates starch is present.
protein	biuret	The solution will change from blue to pink-purple.
lipid	sudan III	The lipids will separate and the top layer will turn bright red.

Effect of pH on the Rate of Reaction of Amylase (Required Practical)

Iodine is used to test for the presence of starch.

If starch is present, the colour will change to blue-black.

The **independent variable** in the investigation is the pH of the buffer solution.

The **dependent variable** in the investigation is the time taken for the reaction to complete (how long it takes for all the starch to be digested by the amylase).

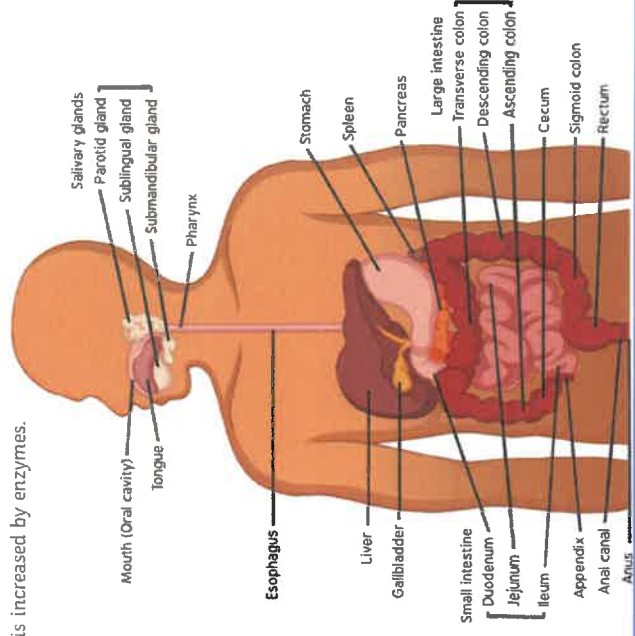
Method:

1. Use the marker pen to label a test tube with the first value of pH buffer solution (pH 4) and stand it in the test tube rack.
2. Into each well of the spotting tiles, place a drop of iodine.
3. Using a measuring cylinder, measure 2cm³ of amylase and pour into the test tube.
4. Using a syringe, measure 1cm³ of the buffer solution and pour into the test tube.
5. Leave this to stand for five minutes and then use the thermometer to measure the temperature. Make a note of the temperature.

6. Add 2cm³ of starch solution into the test tube, using a different measuring cylinder to measure, and begin a timer (leave the timer to run continuously).
7. After 10 seconds, use a pipette to extract some of the amylase/starch solution, and place one drop into the first well of the spotting tile. Squirt the remaining solution back into the test tube.
8. Continue to place one drop into the next well of the spotting tile, every 10 seconds, until the iodine remains orange.
9. Record the time taken for the starch to be completely digested by the amylase by counting the wells that were tested positive for starch (indicated by the blue/black colour change of the iodine). Each well represents 10 seconds of time.
10. Repeat steps 1 to 8 for pH values 7 and 10.

The Digestive System

The purpose of the digestive system is to break down large molecules into smaller, soluble molecules, which are then absorbed into the bloodstream. The rate of these reactions is increased by enzymes.



AQA GCSE Biology (Separate Science) Unit 2: Organisation

Enzymes

An enzyme is a biological **catalyst**; enzymes speed up chemical reactions without being changed or used up.

This happens because the enzyme lowers the **activation energy** required for the reaction to occur. Enzymes are made up of chains of amino acids folded into a globular shape.

Enzymes have an **active site** which the **substrate** (reactants) fits into. Enzymes are very specific and will only catalyse one specific reaction. If the reactants are not the complimentary shape, the enzyme will not work for that reaction.

Enzymes also work optimally at specific conditions of pH and temperature. In extremes of pH or temperature, the enzyme will **denature**. This means that the bonds holding together the 3D shape of the active site will break and the active shape will deform. The substrate will not be able to fit into the active site anymore and the enzyme cannot function.

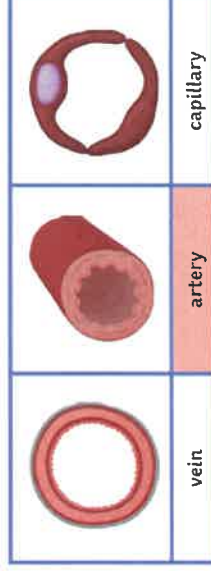
Enzyme	Reactant	Product
amylase	starch	sugars (glucose)
protease	protein	amino acids
lipase	lipid	glycerol and fatty acids

The products of digestion are used to build new carbohydrates and proteins and some of the glucose is used for respiration.

Bile is produced in the **liver** and stored in the gall bladder. It is an **alkaline** substance which **neutralises** the hydrochloric acid in the stomach. It also works to **emulsify** fats into small droplets. The fat droplets have a higher **surface area** and so the rate of their digestion by lipase is increased.

The Heart and Blood Vessels

The **heart** is a large muscular organ which **pumps blood** carrying oxygen or waste products around the body. The **lungs** are the site of **gas exchange** where oxygen from the air is exchanged for waste carbon dioxide in the blood. Oxygen is used in the **respiration** reaction to release energy for the cells and carbon dioxide is made as a waste product during the reaction.



The three types of blood vessels, shown above, are each adapted to carry out their specific function.

Capillaries are narrow vessels which form networks to closely supply cells and organs between the veins and arteries. The walls of the capillaries are only **one cell thick**, which provides a **short diffusion pathway** to increase the rate at which substances are transferred.

The table below compares the structure and function of arteries and veins:

	Artery	Vein
direction of blood flow	away from the heart	towards the heart
oxygenated or deoxygenated blood?	oxygenated (except the pulmonary artery)	deoxygenated (except the pulmonary vein)
pressure	high	low (negative)
wall structure	thick, elastic, muscular, connective tissue for strength	thin, less muscular, less connective tissue
lumen (channel inside the vessel)	narrow	wide (with valves)

The Heart as a Double Pump

The heart works as a **double pump** for two circulatory systems; the **pulmonary** circulation and the **systemic** circulation.

The pulmonary circulation serves the lungs and bring deoxygenated blood to exchange waste carbon dioxide gas for oxygen at the **alveoli**.

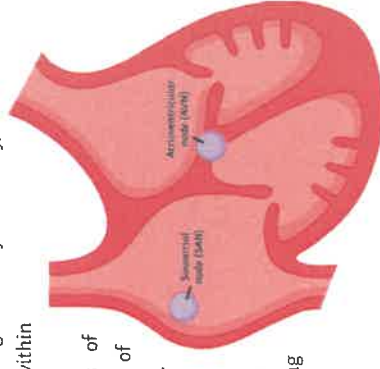
The systemic circulation serves the rest of the body and transports oxygen and nutrients from digestion to the cells of the body, whilst carrying carbon dioxide and other waste away from the cells.

The systemic circulation flows through the whole body. This means the blood is flowing at a much higher pressure than in the pulmonary circuit.

The Heart as Pacemaker

The rate of the heart beating is very carefully, and automatically, controlled within the heart itself.

Located in the muscular walls of the heart are small groups of cells which act as pacemakers. They produce electrical impulses which stimulate the surrounding muscle to contract, squeezing the chambers of the heart and pumping the blood.

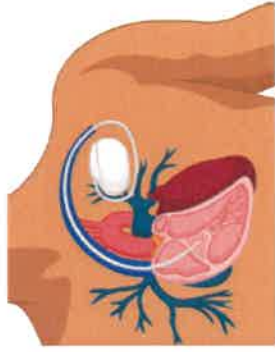


The **sino-atrial node (SAN)** is located near the right atrium and it stimulates the atria to contract.

The **atrio-ventricular node (AVN)** is located in between the ventricles and stimulates them to contract.

AQA GCSE Biology (Separate Science) Unit 2: Organisation

Artificial pacemakers can be surgically implanted into a person if their heart nodes are not functioning correctly.



Coronary Heart Disease

Coronary heart disease is a condition resulting from **blockages** in the **coronary arteries**. These are the main arteries which supply blood to the heart itself and they can become blocked by build-up of **fatty deposits**.

In the UK and around the world, coronary heart disease is a major cause of many **deaths**.

The main symptoms can include **chest pain**, **heart attack** or **heart failure**. Yet, not all people suffer the same symptoms, if any at all.

Lifestyle factors can increase the risk of a person developing coronary heart disease.

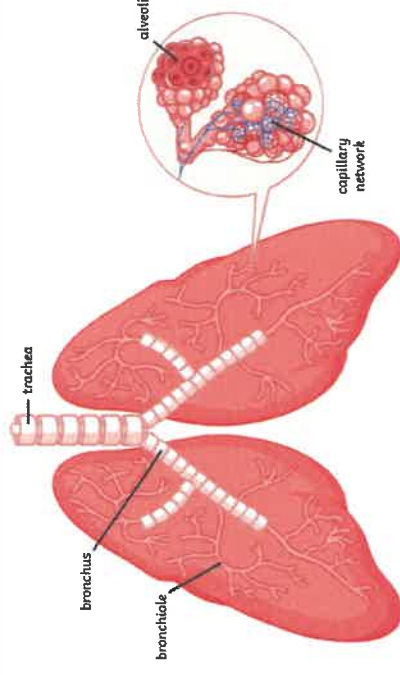
Diet – a high-fat diet (containing lots of saturated fat) can lead to higher cholesterol levels and this cholesterol forms the fatty deposits which damage and block the arteries.

Smoking – chemicals in cigarette smoke, including nicotine and carbon monoxide, increase the risk of heart disease. Carbon monoxide reduces the amount of oxygen which can be transported by the red blood cells and nicotine causes an increased heart rate. The lack of oxygen to the heart and increased pressure can lead to heart attacks.

Stress – prolonged exposure to stress or stressful situations (such as high pressure jobs) can lead to high blood pressure and an increased risk of heart disease.

Drugs – illegal drugs (e.g. ecstasy and cannabis) can lead to increased heart rate and blood pressure, increasing the risk of heart disease.

Alcohol – regularly exceeding unit guidelines for alcohol can lead to increased blood pressure and risk of heart disease.



Blood

Blood is composed of red blood cells (erythrocytes), white blood cells and platelets, all suspended within a plasma (a tissue).

The **plasma** transports the different blood cells around the body as well as carbon dioxide, nutrients, urea and hormones. It also distributes the heat throughout the body.

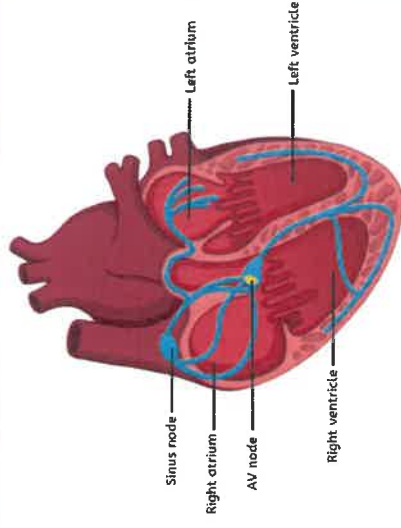
Red blood cells transport oxygen attached to the haem group in their structure. It has a biconcave shape to increase surface area and does not contain a nucleus so it can bind with more oxygen molecules.

White blood cells form part of the immune system and ingest pathogens and produce antibodies. **Platelets** are important blood clotting factors.

at the lungs

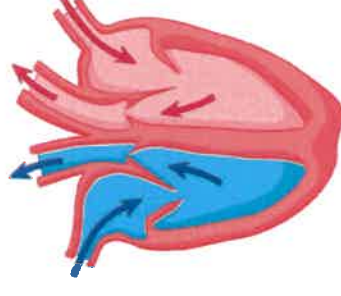
haemoglobin + oxygen $\rightleftharpoons$ oxyhaemoglobin

at the cells



The **right atrium** receives deoxygenated blood via the **vena cava**. It is then pumped down through the valves into the right ventricle. From here, it is forced up through the **pulmonary artery** towards the **lungs** where it exchanges carbon dioxide for oxygen. The oxygenated blood then enters the **left atrium** via the **pulmonary vein** and down into the left ventricle. The muscular wall of the **left ventricle** is much thicker so it can pump the blood more forcefully out of the heart and around the entire body, via the **aorta**.

The blood only flows in **one direction**. This is because there are **valves** in the heart which close under pressure and prevent the backward flow of blood.



Science

AQA GCSE Biology (Separate Science) Unit 2: Organisation

Rate Calculations for Blood Flow

The number of beats the heart performs each minute is called the **pulse** (or heart rate). It is easily measured by counting the number of beats in a given time, e.g. 15s, and finding the total beats **per minute**.

Typically, a lower resting pulse rate indicates a greater level of physical **fitness**. During exercise, and for some time after, the pulse rate increases while the heart is working to provide more **oxygen** to the muscles.

Cardiac output is a measure of the volume of blood pumped by the heart each **minute**. **Stroke volume** is a measure of the volume of blood pumped from the heart each **contraction** (heart beat).

$$\text{Cardiac output (cm}^3\text{/min)} = \text{heart rate (bpm)} \times \text{stroke volume (cm}^3\text{/beat)}$$

Cancer

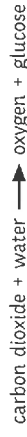
Cancer is the result of **uncontrolled** cell growth and division. The uncontrolled growth of cells is called a **tumour**.

Benign Tumour	Malignant Tumour
- Usually grows slowly. - Usually grows within a membrane and can be easily removed. - Does not normally grow back. - Does not spread around the body. - Can cause damage to organs and be life-threatening.	- cancerous - Usually grows rapidly. - Can spread around the body, via the bloodstream. - Cells can break away and cause secondary tumours to grow in other areas of the body (metastasis).

Plant Tissues, Organs and Systems

Leaves are plant organs and their main function is to absorb sunlight energy for use in **photosynthesis**. Within the cells are small organelles called **chloroplasts** which contain a green pigment called **chlorophyll**. This is the part of the plant which absorbs the sunlight and where photosynthesis occurs.

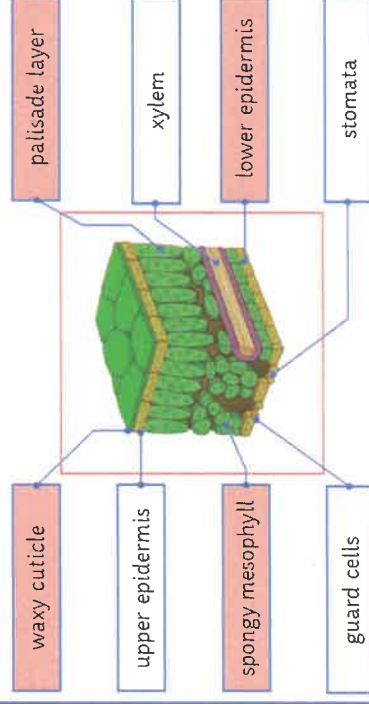
sunlight



Leaves are adapted to carry out their function. Leaves are typically flat and thin with a large **surface area**. This means they have a maximum area to absorb the sunlight and carbon dioxide. The **thin** shape reduces the distance for **diffusion** of water and gases.

Leaves contain vessels called xylem and phloem. The **xylem** transport water and dissolved minerals toward the leaves. The **phloem** transport glucose and other products from photosynthesis around the plant.

The large **air spaces** between the cells of the spongy mesophyll layer allow for the diffusion of gases. **Carbon dioxide** enters the leaves and **oxygen** exits the leaves.



The **guard cells** are specially adapted cells located on the underside of the leaf. They are positioned in pairs, surrounding the **stomata** (a small opening in the epidermis layer). The guard cells change shape to open and close the stomata, controlling the rate of **gas exchange** in the leaf.

Root Hair Cells

Plants absorb water by **osmosis** through the root hair cells of the roots. Dissolved in the water are important minerals for the plant's growth and development, which are absorbed by **active transport**.

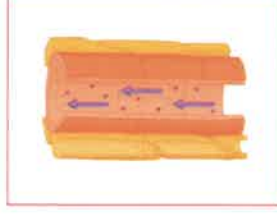


The **root hair cells** are adapted to their function with the following features:

- Finger-like projection in the membrane increases the **surface area** available for water and minerals to be absorbed across.
- The narrow shape of the projection can squeeze into small spaces between soil particles, bringing it closer and reducing the distance of the **diffusion pathway**.
- The cell has many **mitochondria**, which release energy required for the active transport of some substances.

Xylem and Phloem

Xylem vessels transport **water** through the plant, from roots to leaves. They are made up of **dead**, lignified cells, which are joined end to end with no walls between them, forming a long central tube down the middle. The movement of the water, and dissolved minerals, along the xylem is in a **transpiration** stream.



Xylem vessels also provide **support** and **strength** to the plant structure. They are found in the middle of roots so they aren't crushed within the soil. They are found in the middle of the stem to provide strength and prevent bending. In the leaves, they are found in **vascular bundles** alongside the phloem and can be seen as the veins which network across the leaf.



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Phloem vessels transport **food** such as dissolved sugars and glucose from photosynthesis. The food is transported around the plant to where growth is occurring (root and shoot tips), as well as to the organs which store the food. The transport occurs in **all directions** throughout the plant. The cells making up the phloem tube are **living**, with small holes in the walls where the cells are joined.



Transpiration and Translocation

Transpiration is the loss of water, by **evaporation** and **diffusion**, from the leaves of the plant. Water is a cohesive molecule and as it evaporates, there is less water in the leaf, so water from further back moves up to take its place. This, in turn, draws more water with it. This is the **transpiration stream**.

Transpiration occurs naturally as there is a tendency for water to diffuse from the leaves (where the concentration is relatively high) to the air around the plants (where the concentration is relatively low), via the **stomata**.

Environmental factors can change the rate at which transpiration occurs:

- Increased **light intensity** will increase the rate of transpiration because light stimulates the stomata to open. The leaf will also be warmed by the sunlight.
- Increased **temperature** will cause the water to evaporate more quickly and so increase the rate of transpiration.
- Increased **humidity** (moisture in the air) will reduce the rate of transpiration. Whereas if the air becomes drier, the rate increases. A greater concentration gradient will increase the rate of diffusion.
- If the **wind speed** increases, then the rate of transpiration also increases. This is because as the water surrounding the leaves is moved away more quickly, the concentration gradient is increased.
- If the **water content** in the soil is decreased, then the rate of absorption in the roots decreases. This causes the stomata to become flaccid and close, reducing transpiration. If the loss of turgor affects the whole plant, then it will wilt.

Disease Interactions

Having one type of illness can often make a person more susceptible to another type of illness:

- immune disorders → increased risk of infectious disease
- viral infection of cells → increased risk of cancer
- immune reactions → can trigger allergies
- very poor physical health → increased risk of depression or other mental illness

Health and Disease

Health is the state of being free from **illness** or **disease**. It refers to **physical** and **mental** wellbeing.

Disease and lifestyle factors, such as diet, stress, smoking, alcohol consumption and the use of illegal drugs, can all impact the health of a person.

Some conditions are associated with certain lifestyle choices:

- Liver conditions are associated with poor **diet** and prolonged excessive **alcohol** consumption.
- Lung cancer is associated with **smoking**.
- Memory loss, poor physical health and hygiene are associated with the use of illegal or recreational **drugs**.
- Obesity and diabetes are associated with poor diet.
- Anxiety and depression are associated with **stress** and prolonged excessive alcohol consumption.

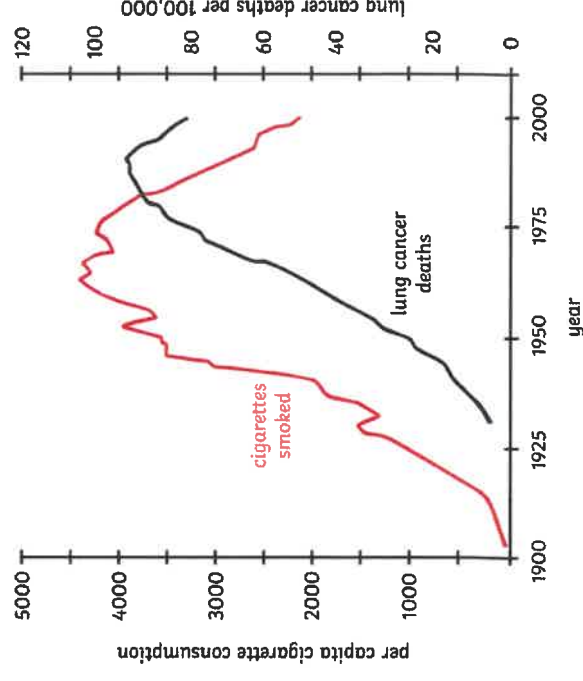
There can often be correlations between some factors and types of illness or specific diseases.

For example, in the graph shown to the right, there is a positive correlation between the number of cigarettes smoked and the number of lung cancer deaths.

However, there are other factors which can contribute to the development of lung cancer e.g. working with asbestos, genetic predisposition.

This means that although the evidence in the graph gives a strong indication that smoking is a cause of lung cancer, it cannot be stated that '**smoking will cause lung cancer**'. Not every person who smokes will develop lung cancer and not every person who develops lung cancer will be a smoker.

Therefore, it can be stated that **smoking increases the risk of lung cancer**.



AQA GCSE Biology (Separate Science) Unit 2: Organisation

Heart Disease (Treatments)

There are a range of medical treatments for heart disease.

Treatment	Description	Advantages	Disadvantages
statins	Drugs used to lower cholesterol levels in the blood, by reducing the amount produced in the liver.	- Can be used to prevent heart disease developing. - Improved quality of life.	- Long-term treatment. - Possible negative side-effects.
stents	Mechanical device which is used to stretch narrow or blocked arteries, restoring blood flow.	- Used for patients where drugs are less effective. - Offers long-term benefits. - Made from metal alloys so will not be rejected by the patients body. - Improved quality of life.	Requires surgery under general anaesthetic, which carries risk of infection.
heart transplant	The entire organ is replaced with one from an organ donor (a person who has died and previously expressed a wish for their organs to be used in this way).	- Can treat complete heart failure in a person. - extended life - Improved quality of life. - Artificial plastic hearts can be used temporarily until a donor is found.	- Requires major surgery under general anaesthetic, which carries risks. - Lack of donors available. - Risk of infection or transplant rejection. - Long recovery times.

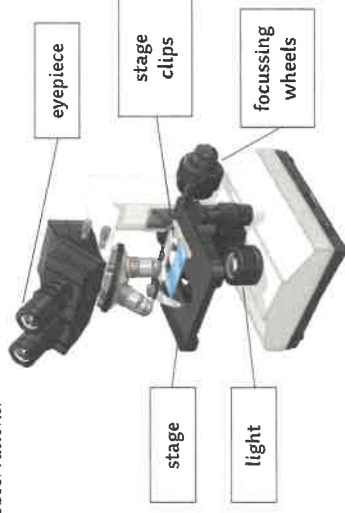


Cell Biology Knowledge Organiser – Foundation and Higher

Required Practical

Microscopy Required Practical

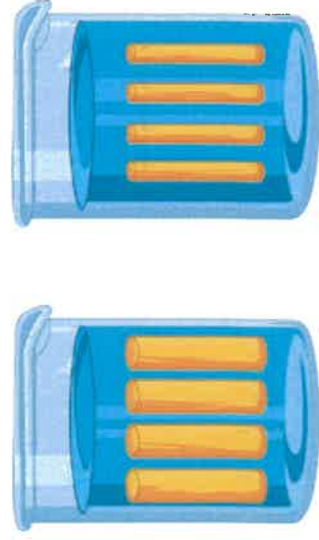
- Includes preparing a slide, using a light microscope, drawing any observations – use a pencil and label important observations.



Osmosis and Potato Practical

- Independent variable – concentration.
- Dependent variable – change in mass.
- Control variable – volume of solution, temperature, time, surface area of the potato.

The potato in the sugar solution will lose water and so will have less mass at the end; the potato in the pure water solution will gain water.



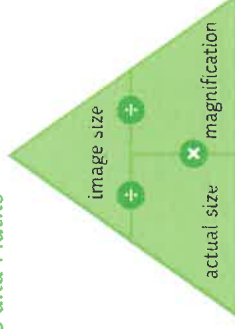
Specialised Cells

When a cell changes to become a specialised cell, it is called differentiation.

Specialised Cell	Function	Adaptation
sperm	To get the male DNA to the female DNA.	Streamlined head, long tail, lots of mitochondria to provide energy.
nerve	To send electrical impulses around the body.	Long to cover more distance. Has branched connections to connect in a network.
muscle	To contract quickly.	Long and contain lots of mitochondria for energy.
root hair	To absorb water from the soil.	A large surface area to absorb more water.
phloem	Transports substances around the plant.	Pores to allow cell sap to flow. Cells are long and joined end-to-end.
xylem	Transports water through the plant.	Hollow in the centre. Tubes are joined end-to-end.

Equations and Maths

Equation

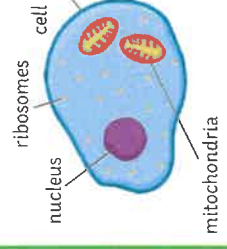


Maths Skills

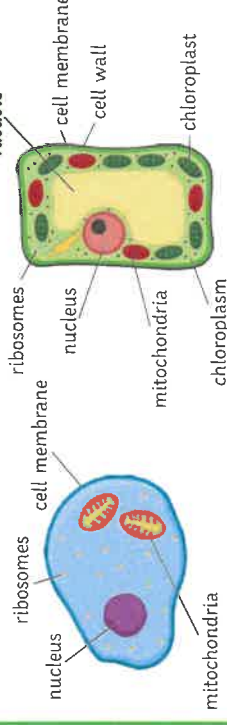
Conversions:
Micrometres to millimetres: divide by 1000.
Standard Form:
 $0.003 = 3 \times 10^{-3}$
 $5.6 \times 10^{-5} = 0.0056$

Prokaryotic and Eukaryotic Cells

Animal Cells



Plant Cells

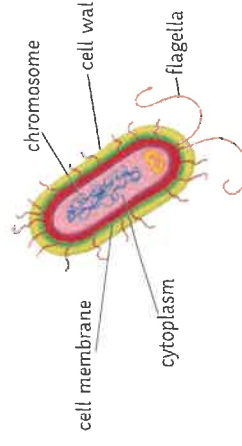


Plant and animal cells have similarities and differences:

	Animal	Plant
nucleus	✓	✓
cytoplasm	✓	✓
chloroplast	✗	✓
cell membrane	✓	✓
permanent vacuole	✗	✓
mitochondria	✓	✓
ribosomes	✓	✓
cell wall	✗	✓

Bacterial Cells

Bacterial cells do not have a true nucleus, they just have a single strand of DNA that floats in the cytoplasm. They contain a plasmid.



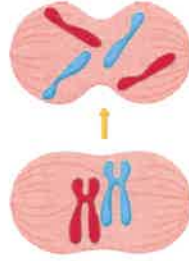
Chromosomes and Mitosis

In the nucleus of a human cell there are 23 pairs of **chromosomes**. Chromosomes contain a double helix of **DNA**. Chromosomes have a large number of genes.



The **cell cycle** makes new cells.

Mitosis: DNA has to be **copied/replicated** before the cell carries out mitosis.



Key Vocabulary

active transport
alveoli
chromosome
diffusion
eukaryotic
gas exchange
mitosis
multicellular
osmosis
prokaryotic
undifferentiated
replicated
specialised
villi

Stem Cells

Embryonic stem cells are **undifferentiated** cells, they have the potential to turn into any kind of cell.



Adult stem cells are found in the bone marrow, they can only turn into some types of cells e.g. blood cells.

Uses of stem cells:

- Replacing faulty blood cells;
- making insulin producing cells;
- making nerve cells.

Some people are against stem cell research.

For Stem Cell Research	Against Stem Cell Research
Curing patients with stem cells - more important than the rights of embryos.	Embryos are human life.
They are just using unwanted embryos from fertility clinics, which would normally be destroyed.	Scientists should find other sources of stem cells.

Stem Cells in Plants

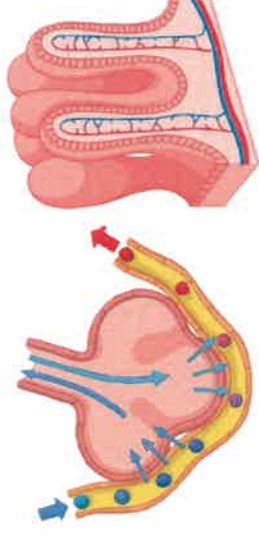
In plants, stem cells are found in the **meristem**. These stem cells are able to produce clones of the plant. They can be used to grow crops with specific features for a farmer, e.g. **disease resistant**.

Exchange – Humans

Multicellular organisms have a large surface area to volume ratio so that all the substances can be exchanged.

Gas exchange: Lungs

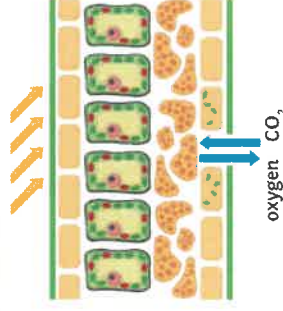
The alveoli are where gas exchange takes place. They have a large surface area, moist lining, thin walls and a good blood supply.



Villi: Small Intestine

Millions of villi line the small intestine increasing the surface area to absorb more digested food. They are a single layer of cells with a good blood supply.

Exchange in Plants



The surface of the leaf is flattened to increase the surface area for more gas exchange by diffusion. Oxygen and water vapour diffuse out of the stomata. Guard cells open and close the stomata, controlling water loss.

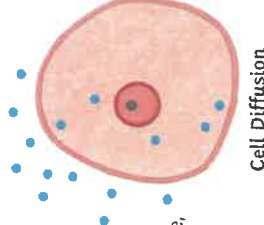
Key Processes

Diffusion is the spreading out of particles from an area of higher concentration to an area of lower concentration.

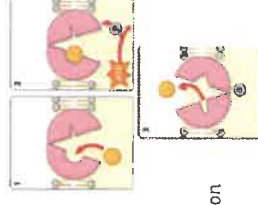
Cell membranes are semi-permeable, only small molecules can get through.

Osmosis is the movement of water molecules across a partially permeable membrane from a region of higher concentration to a region of lower concentration.

Active transport is the movement of substances against the concentration gradient. This process requires energy from respiration.



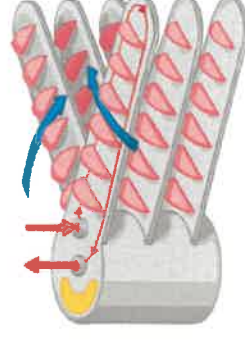
Cell Diffusion



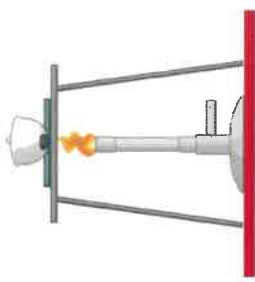
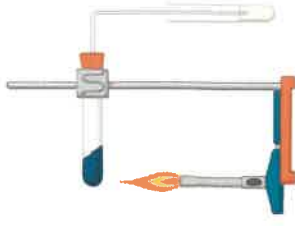
Active Transport in Cells

Exchange in Fish

Fish have a large surface area for gas exchange. These are called **gills**. Water enters the fish through the mouth and goes out through the gills. The oxygen is transported from the water to the blood by **diffusion**. Carbon dioxide diffuses from the blood to the water. Each gill has **gill filaments** which give the gills a large surface area. **Lamellae** cover each gill filament to further increase the surface area for more gas exchange. They have a **thin surface layer** and **capillaries** for good blood supply which helps with diffusion.



AQA GCSE Chemistry (Combined Science) Unit 5.3: Quantitative Chemistry Knowledge Organiser - Higher

Conservation of Mass No atoms can be created or made during a chemical reaction, so the mass of the reactants will equal the mass of the product. Reactions can be shown as a word or symbol equation. magnesium + oxygen → magnesium oxide $\text{Mg} + \text{O} \rightarrow \text{MgO}$ Symbol equations should also be balanced; they should have the same number of atoms on each side. $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$	Relative Formula Mass The relative formula mass (M_r) is the sum of all the relative atomic masses (A_r) of the atoms in the formula. Examples: HCl A_r of H = 1 A_r of Cl = 35.5 M_r of HCl = 1 + 35.5 = 36.5 H₂SO₄ A_r of H = 1 A_r of S = 32 A_r of O = 16 M_r of H₂SO₄ = (1 × 2) + 32 + (16 × 4) M_r of H₂SO₄ = 2 + 32 + 64 M_r of H₂SO₄ = 98
Calculating Percentage Mass of an Element in a Compound percentage mass of an element in a compound = $A_r \times \frac{\text{number of atoms of that element}}{M_r \text{ of the compound}}$ Find the percentage mass of oxygen in magnesium oxide. A_r of magnesium = 24 A_r of oxygen = 16 M_r of MgO = 24 + 16 = 40 $\% \text{ mass} = \frac{A_r}{M_r} = \frac{16}{40} = 0.4 \quad 0.4 \times 100 = 40\%$	Conservation of Mass Show that mass is conserved in a reaction. $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$ $(2 \times 24) + (2 \times 16) \rightarrow 2(24 + 16)$ $48 + 32 \rightarrow 2 \times 40$ $80 \rightarrow 80$ Total M_r on the left-hand side of the equation is the same as the M_r on the right-hand side. Calculate the mass of the product. 6g of magnesium reacts with 4g of oxygen: $6 + 4 = 10\text{g of magnesium oxide}$
During a reaction the mass can change. If one of the reactants is a gas, the mass can go up. E.g. magnesium + oxygen → magnesium oxide Oxygen from the air is added to the magnesium (making the product) which will be heavier in mass. 	If one of the products is a gas, the mass can go down. E.g. sodium carbonate → sodium oxide + carbon dioxide When sodium carbonate is thermally decomposed, carbon dioxide gas is produced and released into the atmosphere. 



The Mole

The Avogadro constant, 6.02×10^{23} , is the number of molecules of a substance that make up one mole of that substance.

Iron has an A_r of 56, so 1 mole of iron has a mass of 56g.

Oxygen (O_2) gas has an M_r of 32, so 1 mole of oxygen has a mass of 32g.

Ammonia (NH_3) has an M_r of 17, so 1 mole of ammonia has a mass of 17g.

number of moles = mass in g (of an element or compound)

M_r (of the element or compound)

Moles and Equations

Write a balanced symbol equation for the reaction in which 5.6g of iron reacts with 10.65g of chlorine to form iron chloride.

Work out the M_r of all the substances.

A_r of Fe = 56 and A_r of Cl = 35.5

Divide the mass of each substance by its M_r to calculate how many moles of each substance reacted or produced.

moles Fe = $5.6/56 = 0.1$

moles Cl = $10.65/35.5 = 0.3$

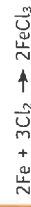
Divide by the smallest number of moles

$$\begin{array}{r} \text{Fe} = 0.1 \quad = 1 \\ \hline 0.1 \end{array} \quad \begin{array}{r} \text{Cl} = 0.3 \quad = 3 \\ \hline 0.1 \end{array}$$

Write down the balanced symbol equation.

Fe + 3Cl

Chlorine exists as Cl_2 so the whole thing must be multiplied by 2.



Limiting Reactions

If one reactant gets used up in a reaction before the other, then the reaction will stop. The reactant that has been used up is limiting.

If you halve the amount of reactant then the amount of product will also be halved.



Mechanical	Force acts upon an object
Electrical	Electric current flow
Heat	Temperature difference between objects
Radiation	Electromagnetic waves or sound

Energy pathways

Kinetic energy	Energy stored by a moving object	$\frac{1}{2} \times \text{mass} \times (\text{speed})^2$ $\frac{1}{2} mv^2$
Elastic Potential energy	Energy stored in a stretched spring, elastic band	$\frac{1}{2} \times \text{spring constant} \times (\text{extension})^2$ $\frac{1}{2} ke^2$ (Assuming the limit of proportionality has not been exceeded)
Gravitational Potential energy	Energy gained by an object raised above the ground	Mass $\times$ gravitational field strength $\times$ height mgh

System	An object or group of objects that interact together	EG: Kettle boiling water.
Energy stores	Kinetic, chemical, internal (thermal), gravitational potential, elastic potential, magnetic, electrostatic, nuclear	Energy is gained or lost from the object or device.
Ways to transfer energy	Light, sound, electricity, thermal, kinetic are ways to transfer from one store to another store of energy.	EG: electrical energy transfers chemical energy into thermal energy to heat water up.
Unit	Joules (J)	

Work	Doing work transfers energy from one store to another	By applying a force to move an object the energy store is changed.	Work done = Force $\times$ distance moved $W = Fs$
Power	The rate of energy transfer	1 Joule of energy per second = 1 watt of power	Power = energy transfer $\div$ time $P = E \div t$ Power = work done $\div$ time, $P = W \div t$

Specific Heat Capacity	Joules per Kilogram degree Celsius (J/Kg°C)	Units
Temperature change	Degrees Celsius (°C)	
Work done	Joules (J)	
Force	Newton (N)	
Distance moved	Metre (m)	
Power	Watts (W)	
Time	Seconds (s)	

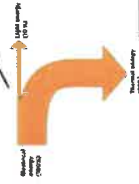
Useful energy	Energy transferred and used
Wasted energy	Dissipated energy, stored less usefully

Prefix	Multiple	Standard form
Kilo	1000	10^3
Mega	1000 000	10^6
Giga	100 000 000	10^9

Energy stores and changes

AQA ENERGY – part 1

Closed system	No change in total energy in system
Open system	Energy can dissipate



Energy Conservation and Dissipation



Dissipate	To scatter in all directions or to use wastefully	When energy is 'wasted', it dissipates into the surroundings as internal (thermal) energy.
Ways to reduce 'wasted' energy	Energy transferred usefully	Insulation, streamline design, lubrication of moving parts.
Principle of conservation of energy	The amount of energy always stays the same.	Energy cannot be created or destroyed, only changed from one store to another.

Energy (KE, EPE, GPE, thermal)	Joules (J)
Velocity	Metres per second (m/s)
Spring constant	Newton per metre (N/m)
Extension	Metres (m)
Mass	Kilogram (kg)
Gravitational field strength	Newton per kilogram (N/Kg)
Height	Metres (m)

HIGHER: When an object is moved, energy is transferred by doing work.

Work done = Force $\times$ distance moved

Frictional forces cause energy to be transferred as thermal energy. This is wasted.

Reducing friction - using wheels, applying lubrication. Reducing air resistance - travelling slowly, streamlining.

Change in thermal energy = mass $\times$ specific heat capacity $\times$ temperature change

$$\Delta E = m \times c \times \Delta \theta$$

HIGHER: efficiency can be increased using machines.

$$\text{Efficiency} = \frac{\text{Useful power output}}{\text{Total power input}}$$

$$\text{Efficiency} = \frac{\text{Useful output energy transfer}}{\text{Total input energy transfer}}$$

How much energy is usefully transferred

When energy is 'wasted', it dissipates into the surroundings as internal (thermal) energy.

Ways to reduce 'wasted' energy

Energy cannot be created or destroyed, only changed from one store to another.

Transport	<i>Petrol, diesel, kerosene produced from oil</i>	Used in cars, trains and planes.
Heating	<i>Gas and electricity</i>	Used in buildings.
Electricity	<i>Most generated by fossil fuels</i>	Used to power most devices.

Using renewable energy will need to increase to meet demand.

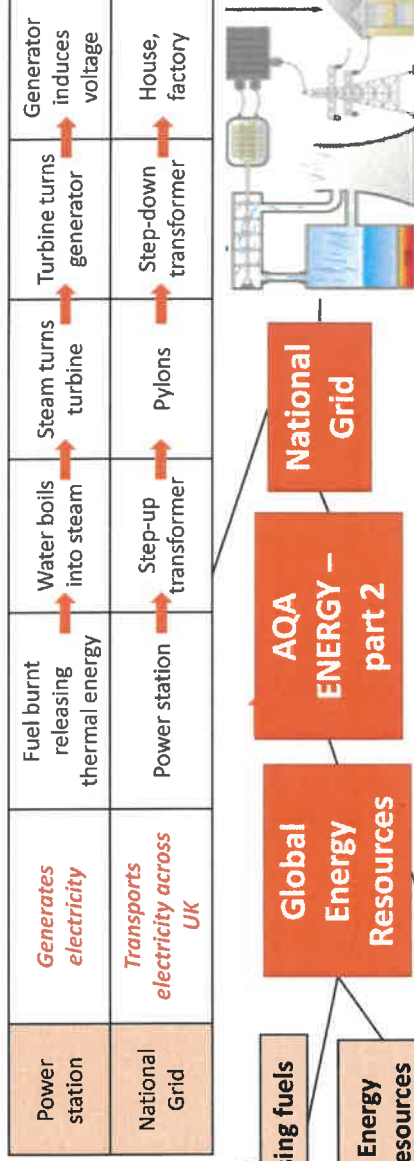
Renewable energy makes up about 20% of energy consumption.

Fossil fuel reserves are running out.

Energy demand is increasing as population increases.

Non-renewable energy resource	<i>These will run out. It is a finite reserve. It cannot be replenished.</i>	e.g. Fossil fuels (coal, oil and gas) and nuclear fuels.
Renewable energy resource	<i>These will never run out. It is an infinite reserve. It can be replenished.</i>	e.g. Solar, Tides, Waves, Wind, Geothermal, Biomass, Hydroelectric

Power station – NB: You need to understand the principle behind generating electricity. An energy resource is burnt to make steam to drive a turbine which drives the generator.



Energy resource	How it works	Uses	Positive	Negative
Fossil Fuels (coal, oil and gas)	<i>Burnt to release thermal energy used to turn water into steam to turn turbines</i>	Generating electricity, heating and transport	Provides most of the UK energy. Large reserves. Cheap to extract. Used in transport, heating and making electricity. Easy to transport.	Non-renewable. Burning coal and oil releases sulfur dioxide. When mixed with rain makes acid rain. Acid rain damages building and kills plants. Burning fossil fuels releases carbon dioxide which contributes to global warming. Serious environmental damage if oil spilt.
Nuclear	<i>Nuclear fission process</i>	Generating electricity	No greenhouse gases produced. Lots of energy produced from small amounts of fuel.	Non-renewable. Dangers of radioactive materials being released into air or water. Nuclear sites need high levels of security. Start up costs and decommission costs very expensive. Toxic waste needs careful storing.
Biofuel	<i>Plant matter burnt to release thermal energy</i>	Transport and generating electricity	Renewable. As plants grow, they remove carbon dioxide. They are 'carbon neutral'.	Large areas of land needed to grow fuel crops. Habitats destroyed and food not grown. Emits carbon dioxide when burnt thus adding to greenhouse gases and global warming.
Tides	<i>Every day tides rise and fall, so generation of electricity can be predicted</i>	Generating electricity	Renewable. Predictable due to consistency of tides. No greenhouse gases produced.	Expensive to set up. A dam like structure is built across an estuary, altering habitats and causing problems for ships and boats.
Waves	<i>Up and down motion turns turbines</i>	Generating electricity	Renewable. No waste products.	Can be unreliable depends on wave output as large waves can stop the pistons working.
Hydroelectric	<i>Falling water spins a turbine</i>	Generating electricity	Renewable. No waste products.	Habitats destroyed when dam is built.
Wind	<i>Movement causes turbine to spin which turns a generator</i>	Generating electricity	Renewable. No waste products.	Unreliable – wind varies. Visual and noise pollution. Dangerous to migrating birds.
Solar	<i>Directly heats objects in solar panels or sunlight captured in photovoltaic cells</i>	Generating electricity and some heating	Renewable. No waste products.	Making and installing solar panels expensive. Unreliable due to light intensity.
Geothermal	<i>Hot rocks under the ground heats water to produce steam to turn turbine</i>	Generating electricity and heating	Renewable. Clean. No greenhouse gases produced.	Limited to a small number of countries. Geothermal power stations can cause earthquake tremors.

Education knowledge organiser

The role of education in society.

1. **The economic role- teaching skills for work.**
Functionalists: Teaches skills and knowledge necessary for work. Preparation for real world.
Marxists: This is reinforcing the class system.

2. **The selective role- Choosing the most able people for the most important jobs.**
Functionalists: The system is a sieve. Meritocratic system, everyone has equal opportunities to succeed, those who work hard and achieve are rewarded with higher pay levels/status.
Marxists: Education does not provide equal opportunities. Designed to benefit the powerful. This is why working-class children underperform.

3. **Social Control- teaching acceptance of rules and authority**
Functionalists: Society must be regulated by rules. Schools are an agency of social control.
Marxists: Social control reflects social control in the wider society which benefits those in power.

4. **The political role- teaching people to be effective citizens and creating social cohesion.**
Functionalists: Acceptance of the political system and will exercise their rights wisely (voting)
Marxists: Only certain political opinions and ideas are tolerated, radical ideas are rejected.

The Hidden Curriculum:
 1. Hierarchy: The hierarchy in school can be seen to reflect the structure of society and in the workplace.
 2. Competition: School encourages competition between students e.g. sports, exam results.
 3. Social Control: Rules, regulations, obedience and respect for authority.
 4. Gender role allocation: teacher expectations and subject choice
 5. Lack of satisfaction: Preparing students for boring, meaningless and repetitive jobs is a similar experience to employees at work.

Social Control: Formal
 Discipline, punishment, school rules.

Social Control: Informal
 Peer-group pressure, learning to live and work with others.

Pre-School (3-5 years). May be provided through the local authority or private.

De-schooling: Illich (1995) argues that schools repress children and promotes passive conformity rather than developing creative individuals. He argues for de-schooling. School should be abolished and people should pursue knowledge and skills with like-minded individuals

Primary (5-11 years). Refers to both infant & junior schools.

Secondary (11-16 years). Most provided for by the state in comprehensive schools.

Further & Higher Education (16-18 years). Sixth Form, college or apprenticeships.

Talcott Parsons (Functionalist)

- Schools prepare children for the same **universalistic standards**- the opposite of the **particularistic standards** from home life.
- Schools promote a **value consensus**: encouraged to achieve high and the rewards encourage them to maximise their potential. Students are also competing on equal terms in the classroom.
- Meritocracy**: students achievements are based on their abilities and efforts, not on social class, gender or ethnicity.
- Role allocation: matched to the correct job based on skill/knowledge.

Arguments for vocational education	Arguments against vocational education
- It will lead to a more skilled, better-qualified workforce that will make Britain more competitive - Functionalists believe it shows the importance the education system has to provide skills and expertise needed by industry & the economy.	- The emphasis on skills training disguises the fact that the problem is not that young people lack necessary skills for work it's that there is no work for skilled young people. - Marxists argue it is viewed as lower status compared to purely academic qualifications. - Seen as replicating the tripartite system

Home education (home schooling): Teaching children at home rather than in a state or independent school. Parents or tutors usually carry this out. It is a legal option for people who wish to provide a different learning environment or ethos to local schools. Recently raised issues around standards and impact on social development.

Functionalist

Education is an important agency of socialisation. It maintains social stability and social cohesion. Prepares young people for working life and adulthood. Teaches specialist skills for work. Education is meritocratic.

Marxist

Prepares young people for a capitalist society. Education is not meritocratic. Encourages conformity and acceptance of social position. The hidden curriculum teaches young people the expectations of society.

Feminist

There are inequalities in the education system between boys and girls. It plays a role in socialisation of boys and girls. Even though girls are outperforming boys, education still reinforces patriarchal views.

Why are independent schools favoured by some?

- Lower teacher-student ratio which means smaller classes so students receive more attention
- Resources/ facilities are better
- Academic culture
- Parental input, expectations and support tends to be higher

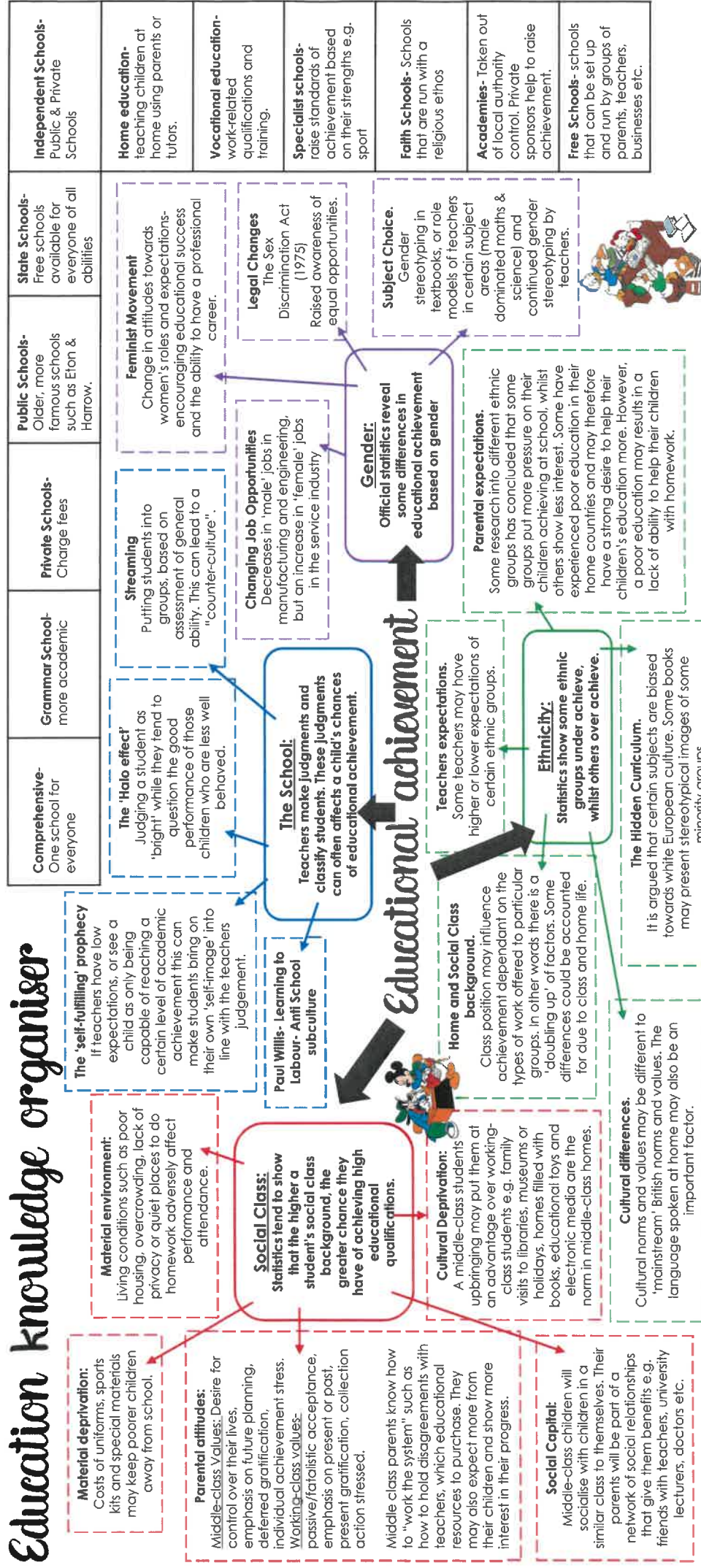
Why are state schools favoured by others?

- Free and not based on ability
- More socially mixed
- Upward social mobility
- Students do not have to travel far on a daily basis

Keythinkers

Emile Durkheim (Functionalist)	Bowles & Gintis (1976) (Marxist)	Ball, Bowe & Gewirtz (1994) - Parental Choice & Competition	Halsey, Heath & Ridge (1980) - Social Class Inequality	Ball (1981) - Banding & Teacher expectations	Willis (1977) - Learning to Labour (Marxist)
The major function of education is learning society's norms and values. Education provides the link between the individual and society. He believed that the school provides a context in which children learn to cooperate with those who are neither their kin nor their friends. Rules should be strictly enforced in order for children to learn self-discipline and to see that misbehaviour damages society as a whole.	The major role of education is the reproduction of labour power. There is a close relationship between the rules which govern the work place and the education system e.g. the creation of a hardworking, docile, obedient. They reject the view that capitalist societies are meritocratic and believe that class background is the most important factor influencing levels of attainment.	A study of fifteen schools in neighbouring LEAs with different population profiles (e.g. class and ethnicity). The study evaluates the impact of parental choice and the publication of league tables, e.g. the pressure to reintroduce streaming and setting and the tendency for some schools to focus on the more able.	The authors found evidence of clear class inequalities in education. They found that an individual from the service class, as compared to one from the working class, had four times as great a chance of being at school at 16. Whilst the chance of an individual from the service class attending university was eleven times greater than one from the working class.	This is a participant observation study. The study describes a school in the process of change and raises questions about the selection and socialisation experienced by two cohorts moving through the school, one banded by ability and the other taught in mixed ability classes.	He believes that education is not a particularly successful agency of socialisation and that education can have unintended consequences that may not be beneficial to capitalism. He described the existence of a counter culture, which was opposed to the values of the school. He concluded their rejection of the school made them suitable candidates for male dominated, unskilled or semi-skilled manual work.

Education knowledge organiser



1944 Butler Education Act - Equal chance to develop talents, free state run education - Introduction of a meritocratic system in which children received an education based on their academic ability rather than the ability of their parents to pay. - Introduction of the 11+ exam and the Tripartite System: - Secondary Modern - Secondary Technical - Grammar	1965: The Comprehensive System - One school for everyone - all abilities and social classes. - No labelling as a failure, seen as fairer. - Each school has a specific 'catchment'	1988 Education Act - Introduction of the marketisation of education - consumer choice and competition. Focus on parental choice, funding based on student numbers and more freedom for schools. - The introduction of the National Curriculum - core subjects for ages 5-16. - Introduction of testing - GCSE examination.	1997 New Labour Educational Policy - Raising Standards: providing nursery places for 3-4 year olds, reducing class sizes, national literacy & numeracy schemes, 'special measures', 'value-added' feature on league tables. - Reducing inequality: introduction of Educational Maintenance Allowance (EMA), Aim Higher Programme, The Sure Start programme and Connexions. - Promoting Diversity & Choice - Introduction of specialist and faith schools.	Since 2010 educational policies: - New style academies - Free Schools - Pupil Premium
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Comprehensive- One school for everyone	Grammar School- more academic	Private Schools- Charge fees	Public Schools- Older, more famous schools such as Eton & Harrow.	State Schools- Free schools available for everyone of all abilities	Independent Schools- Public & Private Schools
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Home education- teaching children at home using parents or tutors.	Vocational education- work-related qualifications and training.	Specialist schools- raise standards of achievement based on their strengths e.g. sport	Faith Schools- Schools that are run with a religious ethos	Academies- Taken out of local authority control. Private sponsors help to raise achievement.	Free Schools- schools that can be set up and run by groups of parents, teachers, businesses etc.
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Families Knowledge Organiser

Segregated conjugal roles:

Clear division of tasks divided into male and female tasks. Husband & wife spend little time together.

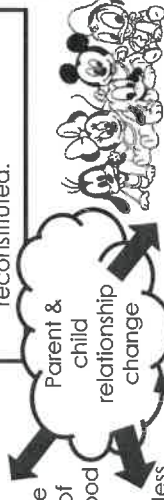
Joint conjugal roles:

Do not have a rigid division of household tasks. Husband & wife spend time together.

Families used to rely on children's income until the **Education Act of 1918** and childhood began

Parents are now less **authoritarian**

Children are seen as important members of the family and their opinions are listened to.



Household:

Consists of one person who lives alone or a group of people living at the same address.

Reasons for increase in one-person households:

- Remain single and childless
- Divorced
- International migrants
- Living alone through choice
- Cohabiting (potentially before marriage)
- Choosing to live apart from partner.

Why have families changed?:

- Laws (gay rights, divorce is easier.)
- Rise of feminism
- Diversity
- Technology (contraception, fertility)
- Changing norms & values
- Secularisation- religion is less of an influence.

Contemporary social issues:

- The quality of parenting
- Relationships between teenagers & adults
- Care of the elderly.

Consequences of divorce:

- Emotional distress
- Financial hardship
- Remarriage

Patterns of divorce:

- Changes in the law
- Changing social attitudes & values
- Impact of secularisation
- Changes in the status of women
- Influence of media.

Patterns of marriage:

- Decline
- Later in life
- Civil partnership/same-sex
- Increase in cohabitation
- Increase in births outside of marriage

Key thinkers

Functionalist The family is a key social structure as it performs several essential functions for individuals and society. Murdock (1949) argues four vital functions: - Sexual Function: regulates sexual behaviour that is approved by society. - Reproductive function: New family members- procreation & childrearing. - Economic function: providing shelter, food & clothes. Economic cooperation between husband & wife. - Educational function: primary socialisation and discipling.	Marxist The family is one of the key institutions that social inequalities are passed on through the generations. - The bourgeoisie pass on their wealth to family members - Educational advantages are passed down as people from wealthy backgrounds can afford to send their children to private schools - Through the socialisation process people learn to accept their position.	Feminist Families have a negative impact on the lives of women. Families socially construct gender differences- canalisation. Children also learn gender expectations through the division of domestic labour e.g. Mum cleaning up.
Nuclear Family (Cereal packet) Father, Mother & Children Same-Sex Family Gay or lesbian couple living in a house, possibly with children. Extended family Includes relatives beyond the nuclear family Beanpole Families Multiple generations of older people and few children Lone-Parent Families One parent and child(ren) who live together Reconstituted Families Sometimes referred to as a step family. Children from a previous relationship so one adult is a biological parent, the other is a step-parent.	How have families changed?: - Smaller (less children) - Marriage is less likely - Parents are older - Joint Conjugal roles - Family diversity - Increase in divorce, rise in reconstituted.	Why have families changed?: - Laws (gay rights, divorce is easier.) - Rise of feminism - Diversity - Technology (contraception, fertility) - Changing norms & values - Secularisation- religion is less of an influence.
Reasons for increase in one-person households: - Remain single and childless - Divorced - International migrants - Living alone through choice - Cohabiting (potentially before marriage) - Choosing to live apart from partner.	Contemporary social issues: - The quality of parenting - Relationships between teenagers & adults - Care of the elderly.	Consequences of divorce: - Emotional distress - Financial hardship - Remarriage

Rapoport and Rapoport (1982)- Family Diversity The family is going through a process of change. There is a wider range of options available & people value choice in their family pattern. No one dominant norm anymore. Five types of family diversity: Organisational, cultural, class, life course and cohort.	Young & Wilmott (1973) (Functionalist) Suggested the 'symmetrical family' is typical-similar contributions made by each spouse to the running of the household e.g. shared chores and shared decisions. Conjugal roles are not interchangeable, but they are of equal importance.	Talcott Parsons (1956) (Functionalist) The family has lost some of its functions, such as education. The family is almost functionless, but still has two important functions. Primary socialisation and the stabilisation of adult personalities e.g. to give and receive emotional support.	Eli Zaretsky (1976)- (Marxist) He believes that the family has become a prop to the capitalist economy (eg the system depends on the domestic labour of housewives who reproduce future generations of workers) whilst also serving as a vital unit of consumption.	Delphy & Leonard (Radical Feminists) Men are the prime beneficiaries of the exploitation of women's labour. They believe that the family has a central role in maintaining patriarchy. When wives have paid employment outside the home they still have to carry out household tasks which are not equally shared with their male partners.
Ann Oakley (1974) (Feminist) Rejects the symmetrical family. The conventional family is no longer the norm. People expect a conventional family life to bring happiness, but there are strains e.g. depression, health problems, stress, from the conventional expectations.				

Research Methods Knowledge Organiser

Postal / Email Questionnaires:

- ✓ Quick
- ✓ Easy to send to lots of people (representative & reliable).
- ✗ Response rate is about 10%
- ✗ Might not understand the questions (less valid).

Structured/ Semi-structured Interviews:

- ✓ All participants are asked the same questions (reliable)
- ✓ Can explain what questions mean (valid);
- ✓ Ability to explain answers further in a semi-structured interview (valid).
- ✗ Interviewer bias

Informal (Unstructured) Interviews:

- ✓ Participants can talk about what is important to them (valid)
- ✓ The researcher can ask the participant what their answers mean (valid).
- ✗ Every interview is different, hard to compare the results of all the interviews (less reliable)

Group Interviews

- ✓ Access a wide range of views and experiences
- ✓ Participants may feel more at ease.
- ✓ Save time and money
- ✗ Some may dominate discussion/everyone might not be heard
- ✗ Cannot assure confidentiality

Participant observation

- ✓ Watch how participants behave (valid)
- ✓ Can see the world from participants' point of view (valid).
- ✗ If participants know they are being observed, then they will not act naturally
- ✗ The researcher might have to get involved in criminal behaviour (unethical)
- ✗ If participants do not know they are being observed, then they can not give their permission (consent – unethical).

Official Statistics

- ✓ The data is usually based on the whole population (representative).
- ✓ May be the only source of data
- ✓ Can investigate trends over time
- ✗ Cannot check the validity
- ✗ Could be politically biased

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 e.g. official statistics

- ✓ Reliable
- ✓ Relevant
- ✓ Scientific
- ✓ Preferred by Positivists
- ✗ Costly
- ✗ Time consuming
- ✗ Sampling needs to be generalisable

Primary Research (data collected first hand.)



Interviews
Surveys
Experiments
Questionnaires
Focus Groups
Case Studies
Observations

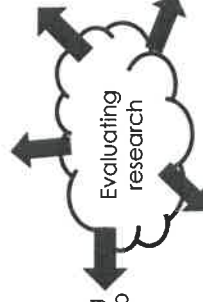
Secondary Research (data from previously published sources.)

Census
Website
Journals
Media
Books
Official statistics
Primary data
ANYTHING

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.

Representativeness: Sociologists want the sample they are studying to represent a large group of people



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

Closed (or fixed-choice) questions

- ✓ Easy to process and present
- ✗ Doesn't allow for the respondent to expand on their answer

Open-ended questions

- ✓ Able to give a more detailed answer
- ✗ Difficult to convert into statistics
- ✗ More time consuming to process



A representative sample: typical of the wider population

An unrepresentative sample: difficult to generalise. Some Groups are overrepresented

Sampling Methods

Probability (or random) sampling



Simple random sampling

Use a computer to generate a random sample, everyone has as much chance as the other.

Systematic random sampling

The researcher uses a system to pick the participants (eg. 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, etc.

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.