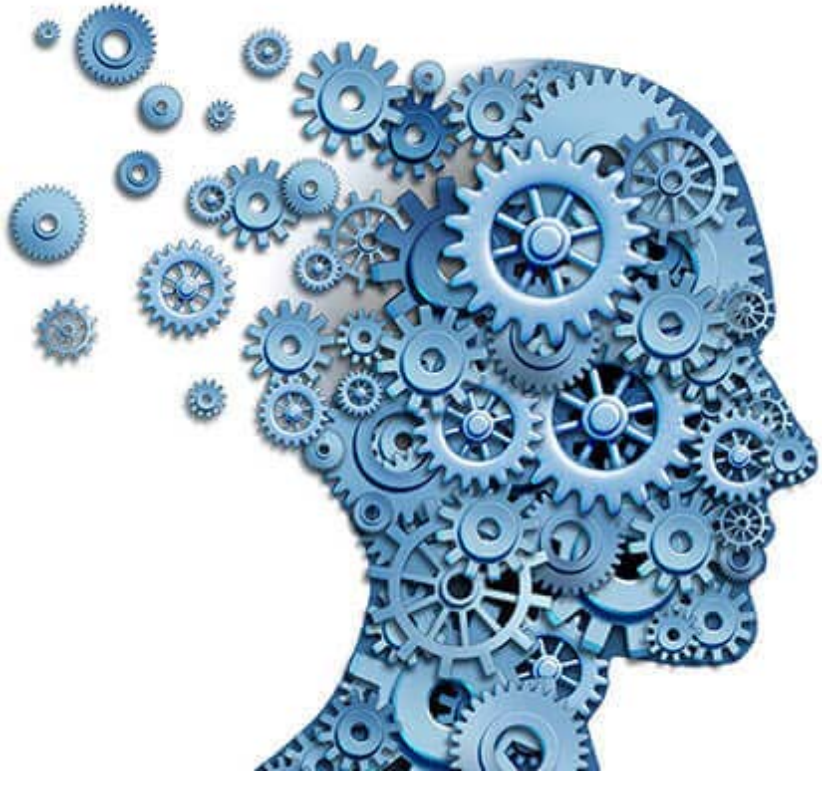
2018-19

Year 10 - Cycle One
100% Book



Name: _____

Tutor group: _____

Paddington Academy
The best in everyone™
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Your 100% book and knowledge organisers

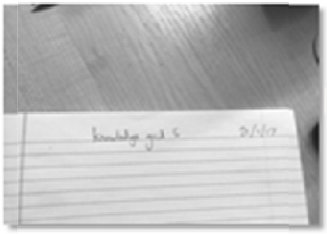
Knowledge organisers contain **critical** knowledge you must know. This will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long-term.

Students remember 50% more when they test themselves after learning.

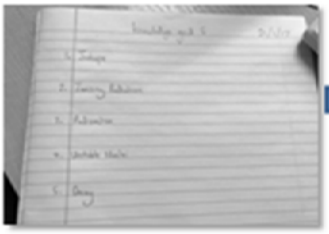
You must have this 100% book for **every lesson** – it is part of your equipment.

You must keep your 100% books (even after you have finished the cycle or the year).

How do I use my 100% book for self-quizzing?

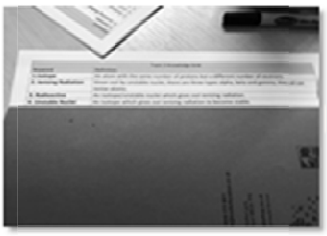


1) Write today's date and the **title** from the knowledge organiser and underline with a ruler



2) Write out the **keywords** leaving two lines between each word

3) Cover the definitions apart from the first: **read** it, **cover** it, **say** it in your head, **check** it



4) If you got it right, move on and **quiz yourself** on the rest in your head, one by one

5) Cover up **all** the definitions and write them out **from memory**

6) Check your answers using green pen
- **Tick** any definitions which are correct
- **Correct** any definitions not completely correct

Correcting spelling, punctuation and grammar

Your work will be marked across all subjects to help you improve your literacy. This is the code that will be used.

Correcting your spelling, punctuation and grammar	
Sp + underlined word	The underlined word is spelt incorrectly. Look, cover, write then check. Do this at least three times so you spell it correctly.
A circle around part of a word or a space	Your punctuation is incorrect, or something is missing (including capital letters).
? + wobbly line	You haven't explained your ideas clearly enough.
/	You need to start a new sentence here. Remember: full stop, capital letter.
//	You need to start a new paragraph here. Remember: new paragraphs for time, place, topic, person (TiPToP).
^	A word is missing where the arrow is pointing.

Year 10 Vocab cycle 1 - مفردات الصف العاشر

Family	أُسرة/عائلة	**Adjectives**	**الصفات**	Because	لأنّ	**Sport**	**الرياضة**
Brother	أخ	Selfish	أناني	Because I	لأنّني	Hobby	هواية
Sister	أخت	Polite	مهذّبة	Because you (m)	لأنّكَ	Walking	المشي
Father	أب	Stubborn	عَنيد	Because you (f)	لأنّكِ	Football	كُرة القدم
Mother	أم	Classy/smart	أنيق	Because he	لأنّه	Swimming	السباحة
Wife	زوجة	Talented	موهوب	Because she	لأنّها	Running / jogging	الجري/الركض
Husband	زوج	Attractive	جذّاب	Because we	لأنّنا	Horse riding	ركوب الخيل
Uncle (paternal)	عمّ	Cheery	مُبتهج	Because you plural	لأنّكم	Tennis	تنس
Aunt (paternal)	عمّة	Doesn't respect	لا يحترم	Because they	لأنّهمً	Basketball	كُرة السلة
Uncle	خال	Annoying	مُزعج	**Days of the week**	**أيام الأسبوع**	Gardening	البستنة
Aunt	خالة	Friendly	وديّ	Monday	الاثنين	Hunting	الصيد
Grandfather	جدّ	Chatty	ثرثار	Tuesday	الثلاثاء	Reading	المُطالعة
Grandmother	جدّة	Boring	مُمل	Wednesday	الأربعاء	Diving	الغوصُ
Friend/friends	صديق/أصدقاء	Tense	مُتوتر	Thursday	الخميس	Skiing	التّزلج
Colleague/(s)	زميل/زملاء	Funny	مُضحك	Friday	الجمعة	Cooking	الطبخ
		Active	نشيط	Saturday	السبت	playing music	عَزف الموسيقى
Wide shoulders	عريض الكتفين	Social	اجتماعي	Sunday	الأحد	Shopping	تسوق
Short	قصير القامة	Patient	صبورة	**Colours**	**الألوان**	Travel	السفر
Strong	قوي البنية	Kind	لطيفة	Yellow	أصفر	Fitness	لياقة بدنية
Thick hair	كثيف الشعر	Spontaneity	عفوية	Red	أحمر	Picnic	نُزهة
Soft hair	شعر ناعم	Brilliant	مُتألقة	Green	أخضر	Gymnasium	قاعة الألعاب الرياضية
dark skin	أسمر البشرة	Humble	مُتواضع	Black	أسود	Pitch	الملعب
Luckily	لحسن الحظ	Faithful	وفيّ	White	أبيض	Cinema	السينمَا
Unfortunately	لسوء الحظ	Bravery	شُجاعة	Brown	بني	Swimming pool	حوض السباحة
Understanding others	متفاهم مع الاخرين	Role model	قُدوة	Navy blue	كحلي		

Sentences/جمل		Connective words	روابط الكلمات	Present Tense	تصريف المضارع
He has many talents	يملكُ مَواهب عَديدةً	As well	ايضا		أنا ألبسُ
Depend on him	تعتمد عليهِ	But	لكن	I Wear	أنتَ تلبسُ
Social media	وسائل التواصل الاجتماعي	I believe that	أعتقد أنّ	You(m) wear	أنتِ تلبسينَ
Schools and clubs	المدارس والأندية	I think that	أظن أنّ	You(f) wear	هو يلبسُ
Volunteer activities	الأنشطة التطوعية	When	عندما	He wears	هي تلبسُ
Workplaces	أماكن العمل	Or	أو	She wears	نحن نلبسُ
Educational centres	المراكز التعليمية	Whereas	بينماً	We wear	أنتم تلبسونَ
Various associations	الجمعيات المُختلفة	Never	أحياناً	You(p) wear	هم يلبسونَ
Sports or cultural activities	الأنشطة الرياضية أو الثقافية	Rarely	أبداً	They wear	هُنّ يلبسنَ
Educational courses	الدورات التعليمية	Repeatedly	نادراً	They wear	أتدرّب
Sports is useful for body and mind	الرياضة مفيدة للجسم والعقل	I have	مرارا	I practice	أُمارس
The perfect mind in healthy body	العقل السليم في الجسم السليم	You(m) have	لي	I practice	العب
Go to the cinema	الذهاب الى السينما	You(f) have	لكَ	I play	أعزف
Reading books	قراءة الكتب	He has	لكِ	play instrument	أطبخ
Listening to music	الاستماع الى الموسيقى	She has	له	I cook	أُفضّل
Watching TV	مُشاهدة التلفاز	We have	لها	I prefer	أرغب
playing football	لعب كرة القدم	I have with me	لنا	I want	أُحبّ/لا أُحبّ
Playing sports	ممارسة الرياضة	You(M) have with you	معي	I love / do not like	يُعجبني/لا يُعجبني
Horse riding	ركوب الخيل	You(f) have with you	معكَ	I like / dislike	استمع
I feel good	أشعر بارتياح	He has with her	معكِ	I listen	أقرأ
I feel relaxed	أشعر بالاسترخاء	She has with her	معه	I read	أُشاهد
Next week	الأسبوع القادم	We have with us	معها	I watch	أركب
At the weekend	في نهاية الأسبوع		معنا	I ride	أذهب
Often	في كثير من الأحيان			Go	أتفاهم/لا أتفاهم
				I get on well/ I don't get on well	

Present tense فعل المضارع

YEAR 10 | ART AND DESIGN | KNOWLEDGE ORGANISER

1. Assessment Objective	What it involves	Top tips for success
AO1: *Develop ideas through investigations, demonstrating critical understanding of sources*	• Artist research • Developing ideas linked to artists work • Understanding artists style – artists copies • Analysing artwork	• Have a clear journey through your portfolio • Make visual links by combining artist's ideas • Make written links by comparing and contrasting other artists' work • Analyse artworks rather than just describing them • Go beyond the obvious and explore more complex issues
AO2: *Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and Processes*	• Improving ideas as they develop • Experimenting and take risks • Trying different materials • Using materials skilfully	• Refine studies to ensure a mastery of technique or process • Experiment with a range of media, materials, techniques and processes • Keep mistakes, write about what went wrong and do it again to show improvement • Ensure that all work is relevant to your intentions – what are you trying to communicate?
AO3: *Record ideas, observations and insights relevant to intentions as work progresses*	• Observed drawing/painting/own photographs • Gathering images and making collages • Designing sketchbook pages to show ideas • Making thumbnails • Annotating to explain what you have done	• Ensure all drawing is accurate, with excellent use of tone • Have a range of high quality primary images considering composition and lighting • Creating a range of skilful thumbnails that link ideas and visual elements from your book • Make sure all technical artistic language is correct and relevant • Analyse own work and that of others visually and through annotations
AO4: *Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language*	• Making a creative response • Producing quality Final Piece based on what you have learnt • Connecting Final Piece with artist's work • Evaluating own work	• Ensure that you have produced a highly skilled outcome • Ensure that there are clear and relevant links between the final outcome and the exploration of artists in your portfolio • Develop your own visual language – own way of communicating ideas

2. Shape and Space	
Closed	Totally enclosed by lines
Distorted	Alteration of a shape
Organic	Shapes associated with the natural world
Positive	Refers to the main focus of a picture
Negative	Refers to the background
Foreground	Part of a view that is nearest to the observer
Background	Part of a picture that forms a setting for the main figures, or appears furthest away

3. Tone	
Dark	Showing a lack of light
Faded	Has lost freshness or depth
Smooth	An even and regular surface without lumps or indentations
Harsh	Extreme and shocking difference between dark and light
Contrasting	A difference between light and dark
Sombre	Dull tone
Grey	Middle point between black (no light) and white (no shadow)

4. Pattern and Texture	
Repeated	The same shape of form repeated over and over
Uniform	Equal spacing between the different parts
Geometric	Made of shapes not found in nature
Symmetrical	Includes a mirror line and the two halves of the pattern are exactly the same
Smooth	An even and regular surface
Irregular	Repetition of non-identical shapes or forms
Coarse	Poor quality, a rough surface

5. Line	
Free	A flowing mark made without no restraints
Controlled	Slow and deliberate line made with small movements
Angular	With sharp angles and straight lines
Delicate	Drawn lightly or faintly onto the surface
Interrupted	A broken or stuttering mark that starts and stops
Overlapping	One part of a mark that covers another
Powerful	Made with a strong mark on the surface

6. Colour	
Primary	Red, Yellow or Blue: all other colours can be made by mixing these together
Secondary	Purple, Green, or Orange: colours made by mixing two primary colours
Tertiary	Colours created when an equal amount of a primary and a secondary colour are mixed
Vivid	Bold and bright colour that gives an intense feeling
Monochrome	A painting or drawing in different shades of a single colour
Contrasting	Opposite each other on the colour wheel and can show difference when used together
Saturated	Colour saturation refers to the intensity of colour in an image

GCSE Business Studies – Topic 1 – Business in the real world

1.1. The purpose and nature of a business

Purpose of a business	1. To provide a good (tangible) 2. To provide a service (intangible)
Business Entrepreneur	An individual with a business idea that takes a risk by starting up a business
Why people start a business	1. To work from home 2. Be your own boss 3. Pursue a hobby
Social Enterprise	An business activity that achieves a reward for society
4 Factors of Production	1. Land 2. Labour 3. Capital 4. Enterprise
Opportunity Cost	The next best alternative that is foregone
Entrepreneurial Characteristics	1. Innovative 2. Risk takers 3. Hard working 4. Determined 5. Organised
Business Sectors	Primary – Extract raw materials Secondary – Production of the product Tertiary – Services provided and products sold
Business Functions	The way a business is divided 1. Marketing 2. Operations 3. Human resources 4. Finance 5. Sales
Business Environment (Changes)	1. Technological Change – changes in machinery and technology, Snapchat, Airbnb are examples of this. 2. Economic Change – Interest rates, inflation, GDP 3. Legal Change – laws and regulations 4. Environmental Change – Ethics and consumer trends

1.2. Legal Structures/Ownership

Structure	Limited - Unlimited	Benefits	Drawbacks
Franchise: The legal right to use the name of an existing firm to sell the same products	Limited	-Training is given - Business is already knows	- Have to pay fees - Decisions are made by the company
Sole Trader: Business run by one person	Unlimited	-Not expensive to set up -Profit kept by owner	- Risk losing personal assets - Hard to find finance
Partnership: Two – 20 people opening a business together	Unlimited	-Few set up procedures -More sources of finance	- Profits are shares - Conflicts may arise
Private limited company: Selling shares to family and friends	Limited	-Easier to get sources of finance -Shared ideas	-Conflicts may arise -Have to share profits
Public Limited Company: Selling shares to the general public	Limited	- Personal assets are protected - More investment	-A lot of people involved in the business

Unlimited Liability	Owners are responsible for al debts and can lose personal assets
Limited Liability	Shareholders can lose their investment but not their personal assets

1.3. Aims and Objectives

Aim	General 'long term' goal of a business
Objective	A specific 'short term' goal of a business
Why set up objectives?	1. Helps with decision making 2. Helps investors understand the business direction 3. Gives the business and employees a direction 4. Can motivate stakeholders
Types of Objectives	1. Survival 2. Earning a profit 3. Increase shareholder value 4. Customer satisfaction 5. Increase market share 6. Growth 7. Being ethical 8. Environmental targets
SMART Objectives	Specific Measurable Achievable Realistic Time-specific

1.4. Stakeholders

Stakeholder's	Someone that has an interest in a business
Types of Stakeholder's	Employees – want more pay, secure jobs Customers – want useful, accurate information, good service and value for money Shareholders – high dividends and high share price Local Community – jobs, reduce environmental impact Government - legal behaviour, taxes paid, growth Suppliers – paid on time, kept informed about business changes
Stakeholder Influence on Business	1. Negotiation – employees can negotiate for better pay, suppliers demand better terms. 2. Direct Action – customers boycotting the product or employees striking. 3. Refusal to co-operate – Councils can refuse to support, employees can work less hard 4. Voting – owners of the business can vote on what to do next with the business

GCSE Business Studies – Topic 1 – Business in the real world

1.5. Business Location

Importance of Location	1. Costs – amount paid for rent or land 2. Sales – are there enough customers around (footfall) 3. Image/Reputation – location of a business can affect their image.
Factors Influencing Location	1. The type of business (factory, shop, restaurant, warehouse) 2. Distance from the market (customers) 3. How many competitors in the area 4. Availability of raw materials 5. Availability and cost of labour (employees) 6. Transport links (roads, buses, trains, airports, ports) 7. Technology (good internet, phones) 8. Costs
Advantages of Operating Overseas	1. Cheaper Labour (workers) 2. Access to resources that are not available in the UK 3. Financial incentives by foreign governments 4. Avoid protectionist measures by foreign governments 5. The market overseas may be growing fast
Disadvantages of Operating Overseas	1. There may be different rules and regulations 2. Language and culture is different 3. Customers may have different tastes to the ones in the UK

1.6. Business Planning

Business Plan	This is a document setting out what a business does and what it hopes to achieve in the future
Risk	The possibility of something going wrong or losing something
Purpose of Business Planning	1. Helps set up a business successfully 2. Helps raise finance 3. Helps set objectives 4. Helps co-ordinate actions
Problems with Business Planning	1. Uncertainty – it is not always easy to look ahead 2. Lack of experience – when people start up a new business it is difficult as they do not have experience 3. Change – a business plan needs to always be updated and referred to and sometimes things change too quick
Reducing the Risk of Business Planning	1. Research 2. Talking to experts and consultants 3. Plan for a variety of outcomes 4. Regularly review and update it
Sections of a Business Plan	- Background Information - Market Analysis - Objectives - Pricing - Competition - Financial Forecast - Product Information
Financial Section of Business Plan	Profit = Revenue – Costs Revenue = Price X no. of units sold
Fixed Costs	Costs that do not change according to output e.g. rent
Variable Costs	Costs that change according to output e.g. ingredients or materials
Total Costs	Total Costs = Fixed Costs + Variable Costs
Revenue	The income a business receives from selling goods or services

1.7. Expanding a Business

Measuring Business Size	1. Value of sales (revenue) 2. Value of the business (how much it owns) 3. Number of employees (how many people work at the company)
Internal (Organic) Growth	This is when a business gets bigger by selling more products
Internal Growth Examples	Franchise, Opening new stores, E-Commerce, Outsourcing
E- Commerce	The act of buying or selling a product using an electronic system such as the internet
Outsourcing	When a business uses another business to make its products or part of the products
External (Inorganic) Growth	This is when a business gets bigger by joining other businesses
External Growth Examples	1. Merger 2. Takeover 3. Horizontal Integration 4. Vertical Integration 5. Diversification
Merger	When two or more businesses join together to form a new business
Takeover	When one business buys control of another
Horizontal Integration	When on firm joins another at the same stage of production process
Vertical integration	When businesses join at different stages of the production process; Forward – when a firm joins with its distributors Backward – when a firm joins with its suppliers
Diversification	When a business takes over a business in a totally different sector
Advantages of Expansion	Economies of Scale (when a firm gets bigger their costs decrease), More Market Power, More Status, Staff Welfare
Disadvantages of Expansion	Decision making is slower, too many employees makes them feel isolated, less efficiency due to size, diseconomies of scale (when a firm gets bigger their costs increase)
Expanding Abroad	+ Target more customers + Cheap labour and land - Different laws and regulations - Existing businesses may resist new business - Customer habits are different

GCSE Business Studies – Topic 2 – Influences on Business

2.1. Technology

Information and communications technology (ICT)	The computing and communicating systems that a business might use to exchange information with stakeholders
Stakeholders	Someone that has an interest in a business
Intranet	Communication network which can only be accessed by employees of an organisation – like the school emails
Extranets	Networks that can be accessed by other organisations such as suppliers
Impact of ICT on employees	1. Location of employees 2. Collecting, storing and analysing information
Cloud Computing	Storage of large amounts of data on the internet
E-Commerce	the act of buying and selling goods online
M-Commerce	The buying and selling of goods through wireless handheld devices such as smartphones
Digital Communication	Transmission of information electronically between computing devices 1. Email 2. Texts 3. Webchat 4. Teleconferencing 5. Apps 6. Social media

2.2. Ethical and Environmental Considerations

Ethics	A business decision that is morally right, doing the right thing
Profit	The positive difference between revenue and costs
Ethical Marketing	When a business markets in an honest, fair and responsible way
Ethical Business Operations	This is when the business operates ethically, such as recycling and choosing ethical suppliers
Ethical Human Resources	This is when employers are treating their employees right
Ethical Finance	When businesses make sure they use their finances in the right way
Fairtrade	When companies become Fairtrade they agree to pay suppliers a fair amount. This then helps the local communities
Social Responsibility	When businesses try to make sure all their operations benefit society
Environment	The natural world in which we live
External Costs	Costs to a business that arise when activities result in harmful effects on other people not directly involved in production e.g. local community when companies dump their wastage
Non-renewable Resources	Resources that are limited such as coal and oil
Sources of Air and Noise Pollution	1. Agriculture 2. Manufacturing 3. Transport 4. Power Stations

Ways to be Environmentally Friendly	1. Use of renewable resources 2. Reduce transport pollution 3. Recycling or using recyclable materials 4. Stop using chemicals in production
Sustainability	Methods of production which can be continued without damaging the environment in the long-term
Advantages of being Environmentally Friendly	1. Competitive advantage 2. Charge higher prices 3. Attract new customers
Disadvantages of being Environmentally Friendly	1. Increase costs 2. If not behaving ethically, can attract bad publicity.

GCSE Business Studies – Topic 2 – Influences on Business

2.3. Economic Climate of a Business

The Economy	Made up of millions of induvial consumers, thousands of businesses and the governments.
Consumers	Individuals who buy goods and services from businesses
Economic Climate	Describes key factors within an economy such as the level of goods produced and the unemployment rates
Interest Rates	The cost of borrowing money
High Interest Rates	1. High cost of borrowing 2. People/businesses borrow less 3. People save more 4. Weakening economic climate
Low Interest Rates	1. Low cost of borrowing 2. People/businesses borrow more 3. People spend more 4. Improving economic climate
Employment	The number of people working in an economy
Unemployment	The number of people that are able and willing to work that cant find a job
High Unemployment	1. Less people have jobs 2. Consumer spending falls 3. Demand falls
Consumer Spending	The value of goods and services bought buy consumers over a period of time
Income Elastic Products	Products that are sensitive to changes in consumer incomes.

2.4. Globalisation

Globalisation	When the world is more interconnected through communication, transport and technology
Multinational Company (MNC)	When a company operates in more than one country. Can also be called Transnational Companies (TNCs)
International Trade	Selling of goods and services across national borders
Exports	When goods and services produced by a business in one country are sold to another country
Reducing the Risk of Business Planning	1. Research 2. Talking to experts and consultants 3. Plan for a variety of outcomes 4. Regularly review and update it
Sections of a Business Plan	- Background Information - Market Analysis - Objectives - Pricing - Competition - Financial Forecast - Product Information
Financial Section of Business Plan	Profit = Revenue – Costs Revenue = Price X no. of units sold
Fixed Costs	Costs that do not change according to output e.g. rent
Variable Costs	Costs that change according to output e.g. ingredients or materials
Total Costs	Total Costs = Fixed Costs + Variable Costs
Revenue	The income a business receives from selling goods or services

2.5 Legislation

Legislation	A set of rules that governs the way a society operates. It is another term for "laws".
National Living Wage	An hourly rate of pay set by the government. All employees above a certain age must receive at least this rate of pay.
Discrimination	Treating one person differently from another without having good reason to do so.
Part-time employee	Employees who work for a proportion of the week – for example 3 days a week, rather than 5.
Trade Union	A group of workers who act together to improve their pay and working conditions.
Contract of employment	A legal document stating the hours, rates of pay, duties and other conditions under which a person is employed.
Motivation	A range of factors which influence the way a person behaves at work.
Consumer laws	Laws to stop businesses from treating their customers unfairly.

2.6 The competitive environment

Markets	Exists where there are buyers and sellers.
Competition	Exits when more than one business is attempting to attract the same customers.
A monopoly	Exists when a business does not face any competition in a particular market.
Market Share	The percentage of sales in a particular market recorded by a business.
An uncertainty	Occurs when there is a lack of information about a situation. This means the outcome is hard to predict.
Risk	The possibility of something going wrong.
A business plan	Is a document setting out what a business does and what is hopes to achieve in the future.
Diversification	Occurs when a business starts selling new products in new markets.
A recession	Occurs when the value of an economy's output of goods and services falls for six months or longer.
Entrepreneur	Someone who is willing to take the risks involved in starting a new business

GCSE Business Studies – Topic 3 – Human Resources

3.1. Organisational structures

Organisational Structure	The way a business arranges itself to carry out its activities
Organisational chart	A plan showing the roles of, and relationships between, all the employees in a business.
Line Manager	An employee's immediate superior or boss
Authority	The power to control others and to make decisions.
Span of control	The number of employees managed directly by another employee.
Levels of hierarchy	The layers of authority within a business
Chain of command	The line of authority within a business along which communication passes.
Delayering	The removal of one or more levels of hierarchy from a business's organisational structure.
Delegation	The passing down of authority to more junior employees
Communication	The exchange of information between two or more people.
Decentralisation	Allows employees working in a all areas of the business to take decisions.
Centralisation	Occurs when a small number of senior managers in a business take all the important decisions.

3.2. Recruitment and Selection

Diversification	Occurs when a business starts selling new products in new markets.
Retention	The proportion of a business's workforce who remains with the business over a period of time, usually one year.
Recruitment	The process of finding and appointing new employees.
Selection	Choosing the right employees from among those who have applied for the job.
Internal Recruitment	Takes place when a job vacancy is filled from within the existing workforce
External Recruitment	Filling a job vacancy from any suitable person not already employed by the business
Job analysis	The collection and interpretation of information about a job.
Job description	States information about the duties and tasks that make up a particular job.
Person specification	Sets out the qualifications and skills required by an employee to fill a particular job.
Curriculum Vitae (CV)`	Provides information about a person, including qualifications, employment history and interests.
Productivity	The quantity of goods and services produced by an employee over a period of time, such as one year.
Quality	The extent to which customers' requirements are met
Customer Service	That part of a business's activities that is concerned with meeting customers' needs as fully as possible.
Contract of employment	A legal document stating the hours of work, rates of pay, duties and other conditions under which a person is employed
Full-time employment	Occurs when someone works a number of hours equal to the normal working week, normally between 35 and 40 hours.
Part-time Employment	Takes place when an employee works for fewer than the normal number of working hours per week.
Job Share	Exists when two or more employees agree to share the responsibilities of a single job.
Zero hours contract	Allows employers to hire staff without any guaranteed hours of work.

3.3. Motivating Employees

Motivation	**The range of factors that influence people to behave in certain ways.**
Job Enrichment	Designing a job to give interesting and challenging tasks
Fringe benefits	The 'extras' that employees pay receive in addition to their pay, for example, a company car.
Piecework	A method of payment under which employees are paid according to the quantity of products they produce
The National Living Wage	An hourly rate of pay which is set by the government. All employees above a certain age must receive at least this rate of pay.

3.4 Training

Training	**A range of activities giving employees job-related skills and knowledge**
Induction Training	The training given to an employee when he or she firsts starts a job
On-the-job-training	Training given in a workplace
Off-the-job training	Training that is provided outside the employee's place of work

Knowledge Organiser Child Development; Unit 1 Working in Childcare

learning outcome 1: Understand the types of settings and local provision for children.

		Where are children Aged 0-5 looked after?	
	Childcare Setting	**Description**	**Age of children**
1	Registered childminder	In the home, self-employed, registered by Ofsted, up to six children	0-8
2	School based nursery	Attached to a primary school; only in term time, usually starting the year before they go to reception. Ofsted inspected	Usually around three-5
3	Reception class	During the school year of the child's 5th birthday. Ofsted inspected.	4-5
4	Children's Centres	In the community, offer health and support and play. Parents attend with children	0-5
5	Day nursery	Private, voluntary or in a workplace. Registered and inspected by Ofsted. Can have long hours.	0-5
6	Out of school clubs	Breakfast and after school	4 plus
7	Playgroup	If parents don't attend it must be registered and inspected. If they do, it doesn't have to be.	2-5
8	Nanny	Looks after children in their own home. No qualifications necessary although they usually have them.	0-5 years
9	Crèche	Can look after children on a one off basis whilst parents do an activity such as sport or shopping. Not required to register with Ofsted	Varies.

		What are the different types of provider: Paid/unpaid/who works there? Are they Ofsted inspected?
	Types of Setting	**Description of setting**
1	Voluntary	People volunteer and pay themselves. E.g. a charity or a church group or a group of parents
2	Private	Parents need to pay. Includes nurseries, child minders, work place nursery and crèches. Must be registered and inspected by Ofsted
3	Statutory/Maintained	Government funded and have to be available by law. Some nursery places and reception. Must be registered and inspected by Ofsted
4	Independent	Schools that parents pay for. Still follow the EYFS and are inspected.

learning outcome 2. **Understand** how to prepare for placement

		How do I prepare for my work experience placement?
	What to consider when preparing for a placement	**What you need to know to do this**
1	Finding a setting	Can I get there, Age range of children, do they have the right place at the right time?
2	Communication with the setting	How to make a phone call, a setting visit, how to write them an email.
3	Timekeeping and attendance	Why is this essential? What to do if you are ill or are going to be late
4	Dress code	Clothing, religious dress, jewellery and make up, footwear, personal hygiene, tattoos or piercings
5	Behaviour	Talking to others, not gossiping, when to use mobile phones, modelling good behaviour, good manners
6	Positive attitude	Smiling, offering to help, going the extra mile, looking for extra things to do
7	Paperwork	How to keep log book
8	DBS Check	When you reach the age of 16 you need to be checked for criminal activity if you are going to be working with children.

learning outcome 3: The responsibilities of a childcare worker

		What are the responsibilities of a childcare worker?
	Responsibility	**What does it mean?**
1	Safeguarding	Protecting children, understanding the policy, what to report, DBS
2	Health Safety and Security	Locking doors, who to let in, signing in, fire drills, first aid, medicines, storage of equipment, hazardous materials, trip hazards
3	Working with the EYFS	The early Years Foundation Stage: This helps you to know the children's learning and development requirements, safeguarding and assessment requirements. Learning includes language, physical development, social and emotional development, literacy, maths and creativity.
4	Acting as a role model	How to act in front of the children because they will look up to you.
5	Confidentiality	Keeping personal details of children confidential at all times. Never gossiping about children. Never using mobile phones or social media to discuss the children. Also being aware of the confidentiality procedure of the setting
6	Managing children's behaviour	Following the behaviour policy. How to manage behaviour using the right language. How to use praise
7	Equality and diversity	Treating all children equally no matter what their race, gender or ability is.
8	Recognising when to refer to others	Asking questions, if a child is in danger, if you know a family of a child, if behaviour management is not working

Learning outcome 4: understand individual needs and the necessity for fairness and inclusive practice

What are the three areas of learning in children aged 0-5	
Prime area of learning	**Why is it important?**
Language and Communication	They need to think clearly, develop their own ideas and start to express themselves
Physical development	Controlling their bodies, developing large and small movements, keeping healthy, starting to learn to hold a pen
Personal, social and emotional development	Confidence, social skills, respect and behaviour

What to remember at each age when looking after children	
Age	**Age related needs to consider**
0-1	Young babies need quiet and calm. Lots of physical contact and eye contact, opportunities to develop muscles in arms and legs. Different toys and textures to touch and pick up
1-2	Must be kept safe as they want to walk and climb. Must have toys and equipment to keep them physically busy. Potty training? Lots of language practice, stories and rhymes
2-3	Tantrums! Need to be dealt with patiently, learning to hold a spoon or crayon. Toilet training.
3-4	Lots of questions, lots of talking and listening. Throwing and catching, learning how to share
4-5.	More independence. Dress and feed themselves, understanding others, knowing the difference between right and wrong. Starting to reason and solve problems.

Special educational needs		
	The SEN	**What this means**
1	Social and emotional needs	Behaviour and emotions that may be difficult
2	Communication and language	Language that does not reach the developmental norm. Or how they communicate with other people
3	Physical needs	Their strength, any physical disability
4	Intellectual or cognitive needs	How they can understand information and use this info.
5	Sensory needs	Sight, hearing, touch taste and smell

How to be fair with ALL children		
	The responsibility	**Description**
1	Equal opportunities	Not discriminated against due to gender, race or disability
2	Anti-bias practice	What the setting does to make sure all children are treated fairly.
3	Discrimination	Treating a person differently because of race, gender age or disability
4	Prejudice	Assuming something negative about a person before you know them based on race, age, gender or disability.

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Learning Outcome 5: preferred learning style and relevant study skills

How do we learn?	
Preferred learning styles	**description**
Visual	Learning through looking or seeing: these learnings are good at remembering what they read and write. They like to see charts, pictures, presentations and print
Auditory	Learning through hearing; they find things easier to learn if they hear them for example to be told instructions. They say things out loud to remember them.
Kinaesthetic	Learning through touching and doing. Prefer to move around more, might have less concentration and will learn by doing.

What are study skills?	
1	Managing time
2	Where to find information
3	Note taking and note making
4	How to plan an assignment
5	How to reference and
6	Add a bibliography

	FIVE THINGS TO KNOW ABOUT HOW YOU LEARN AND STUDY BEST
1.	Know your learning style and use it to help you
2.	Recognise your own strengths and weaknesses
3.	Try to organise your studies as much as you can and then you can make the most of your time
4.	Reading you have done may help you
5.	Make the most of help from others

The 39 Steps | Drama | Year 10 | Cycle One	
(A) Context	1. *Plays and performance styles are a product of their time and as such they respond to the social, cultural and historical context.* 2. *The play is set in 1935*
Social Context	1. It was a time of rapid technological development in Britain. A time of scientific discovery. 2. There was also much more independence and freedom for women than in previous decades, with more opportunities for education and employment.
Cultural Context	1. Radios, gramophones, cinema and theatre were popular forms of entertainment. With no television or internet, the radio and newspapers were the primary sources of news. 2. Art Deco was a popular arts movement of the time. It used geometric designs and bold colours. Influencing how homes were decorated.
Historical Context	1. In between the first and Second World War. There is a growing unease about the threat of fascism in Europe. There is unrest in Germany and a sense that Britain may be in danger. 2. Between the two wars many secret services were formed, including England's SIS and Germany's Abwher.

(C) Timeline of The 39 Steps

1915: Novel written by John Buchan. Considered the first spy thriller. Introduced main character as an "everyman".	1935: Adapted into a film by Alfred Hitchcock. Added characters Annabella and Pamela, added the fourth bridge scene.	2005: Adapted into a play by Patrick Barlow. An affectionate parody of the film.

(B) Style	1. Uses conventions of a **Melodrama**. It shows the hero (Hannay) overcoming evil (Professor Jordan), while winning the love of a good woman (Pamela) 2. Makes use of the performance technique **Multi-role**. They play suggests that you make use of actors playing more than one character expect the one playing Hannay.
Themes	**1. Attractiveness of Evil:** The play explores how evil comes in attractive forms. E.G. Professor Jordan lives in a beautiful home, has lots of money and is very charming and cultured. **2. Romance:** There are many moments of romance through the play that runs as a secondary theme.

(D) Key words: Stage layouts	
1. End on / Proscenium Arch	All audience member are facing the same way. (Most common)
2. In the round	Audience are seated all the way around the action.
3. Thrust	The stage has a section that goes into the audience. The stage can often look like the letter T.

The 39 Steps | Drama | Year 10 | Cycle One

(E) Physical Skills	
Facial Expression	Use of the face to show emotion or reaction.
Gesture	A movement, mainly with your hands, to express meaning or feeling.
Posture	The way actors hold their body when standing, sitting or moving.
Speed	How quickly the actor moves in the space.
Stillness	When an actor is silent calm and not moving.
Eye Contact	A moment when eyes meet.
Mannerisms	Repeated movements and gestures.
Non-verbal Communication	All of the above are ways of communicating without speaking.

(G) Key words: Light	
1. Focus	Using light to draw the audiences attention to parts of the stage.
2. Intensity	How bright or dim a light is.
3. Gobo	A metal cut out used to cast shaped light.

(H) Key words: Sound	
1. Sound effect	Sounds used to punctuate the action of the play.
2. Recorded	Any sound that has been recorded prior to the performance.
3. Volume	How loud or quiet a sound is played.
4. Direction	Where the sound comes from in relation to the audience.

(F) Vocal Skills	
Tone	The emotional quality of the voice. E.g. Jolly or Sharp
Monotone	Speaking without variations in tone. E.g. Dull or expressionless.
Intonation	Emphasising a word in a sentence.
Pitch	How high or low your voice is. E.g. Piercing or deep.
Inflection	Varying the pitch during a line of speech.
Volume	How loud or quiet an actor speaks. E.g. Whisper or shout.
Accent	Indicates the region the character is from. E.g. Liverpudlian.
Pace/Pause	How quickly lines are spoken. Taking purposeful pauses in speech.

(I) Key words: Set	
1. Flat	A large piece of wood, used to create parts of the set.
2. Period	The time period the set is designed to represent. (Can be used to talk about other design elements)
3. Entrance / Exit	Where actors enter and exit the stage.
4. Projections	Projected images to show location or create atmosphere.

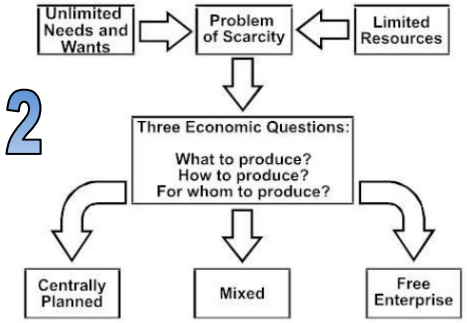
(J) Key words: Costume	
1. Fit	The way a costume fits a character. E.g. Tight or loose.
2. Material	The material a costume is made from.
3. Hair and makeup	How the character has their hair and makeup.

Introduction to Economics - 1

1

The Basic Economic Problem
Our wants are infinite, but our resources are scarce
Opportunity Cost
The value of the next best alternative foregone when making a choice
Scarcity
Not having enough of something, for example not having enough resources to meet our wants

2



3

Factors of production	
Land	**Labour**
The natural resources we have to make things: physical space, crops, things we dig up like coal or fish from the sea.	The human input in making things, like the workers in a factory.

Capital	Enterprise
Goods which are used to produce other goods. For examples, machine and tools.	The ideas and the risk taking required to pull the other factors together.

4

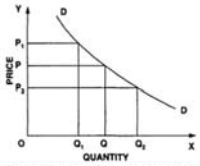
Environmental sustainability
Using the Earth's resources in a way which means they don't run out and that we can continue to use them in the future

5

Market
Any place (physical or virtual, like the internet) where buyers and sellers come together to exchange goods and services
Primary sector
Where raw materials are extracted, for example: mining, fishing, farming, the oil industry
Secondary sector
Where raw materials are manufactured, or turned into finished goods. For example making cars out of metal and rubber
Tertiary sector
The service sector. For example banking, tourism, healthcare and public transport

6

Demand
The quantity of a good or service that consumers are willing and able to buy at a certain price. Being able to buy it is important, this makes it *effective* demand.
Demand curve (diagram)
A demand curve shows you the relationship between the quantity of goods people are willing to buy and the price of the good. Demand curves are *downward sloping from left to right.* This means that when the price of a good rises, the amount that buyers want to buy will fall.
Contraction in demand
A movement along the demand curve, caused by a change in price. When prices rise the quantity demand will reduce, so this is a contraction.
Extension in demand
A movement along the demand curve, caused by a change in price. When prices fall, the quantity demanded will go up, so this is an extension.



2.3 (A) Extension/Contraction of Demand

Shift in the demand curve
When the entire demand curve shifts left or right because of a change in one of the factors which influence demand *at any given price* (PASIFIC factors)

7

Supply
The quantity of a good or service that producers are willing and able to sell at a certain price.
Supply curve (diagram)
A supply curve shows you the relationship between the quantity of goods producers are willing to sell and the price of the good. Supply curves are *upward sloping from left to right.* This means that when the price of a good rises, the amount that producers will supply also rises.
Extension in supply
A movement along the supply curve, caused by a change in price. When prices rise the quantity supplied will rise, so this is an extension in supply.
Contraction in supply
A movement along the supply curve, caused by a change in price. When prices fall, the quantity supplied will fall, so this is a contraction in supply
Shift in the supply curve
When the entire supply curve shifts left or right because of a change in one of the factors which influence supply *at any given price* (PINTSWC factors)

8

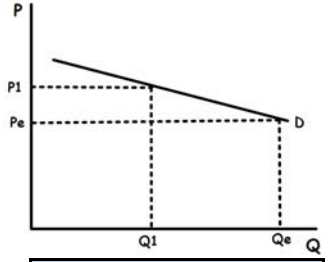
PASIFIC (Demand factors)	
These are the factors which cause a demand curve to shift. The will mean that either more or less of a good is now bought *at any given price.* Change in price itself does NOT cause a shift	
P	Changes in the population
A	The use of advertising
S	The price and availability of substitute goods
I	Changes in incomes
F	Changes in fashion or trends
I	Changes in interest rates
C	The price and availability of complementary goods

9

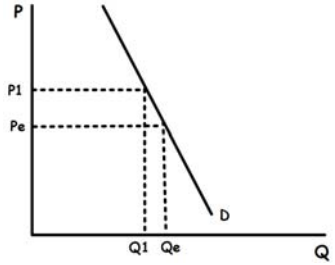
PINTSWC (Supply factors)	
These are the factors which cause a supply curve to shift. The will mean that either more or less of a good is now produced *at any given price.* Change in price itself does NOT cause a shift	
P	Changes in productivity (output per worker per time period)
I	Changes in indirect taxes on firms
N	A change in the number of firms in the market
T	Changes in technology
S	The receipt of a government subsidy (grant to firms)
W	Changes in weather
C	Changes in the cost of production (e.g. cost of raw materials)

10

Price elastic demand
The percentage change in price is smaller than the percentage change in demand



Price inelastic demand
The percentage change in price is greater than the percentage change in demand



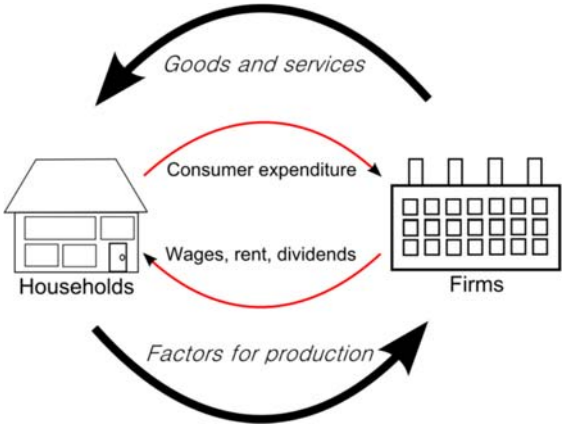
Introduction to Economics - 2

1

Specialisation
When an individual, firm or even a country chooses to focus on producing a specific thing and becomes better at it (more efficient)
Efficiency
Being able to produce more output with the same or fewer resources
Alienation
The feeling that some workers can get if there is specialisation, when they don't see the finished product as something they have contributed to because they are only involved in a small part of its production

2

Types of market	
Factor Market	**Product Market**
Market in which the services of the factors of production are bought and sold	Market in which final goods and services are offered to consumers, businesses and the public sector
For example, a builder sells his labour for a wage	For example, any finished or manufactured product like an iPad or a car



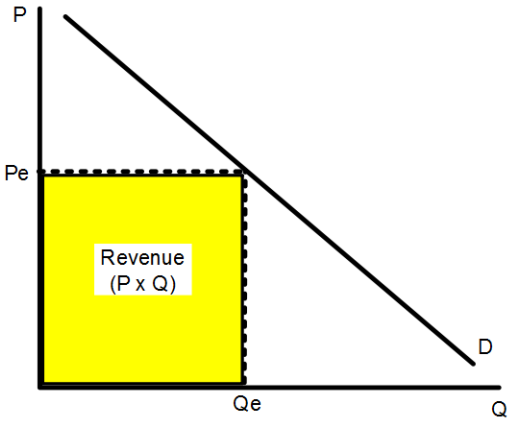
Market interdependence
Factor markets and product markets are interdependent because households supply their labour to firms to produce goods. They use the wages they receive from this to buy goods and services from each other (see above)
Derived demand
When something isn't demanded for itself—instead the demand for it is dependent on the demand for something else. For example, firms don't hire builders because they like builders —the demand for builders when the demand for houses is high.

4 / 5

The Labour Market	
Labour market	Where workers sell their labour and employers buy labour.
Wage	Payment for labour calculated per hour
Salary	Payment for labour calculated annually
Gross pay	The amount of money earned by an employee before any deductions
Net pay (take-home pay)	The amount of money earned by an employee after deductions
Deductions	Taxes, national insurance, pension contributions and student loan repayments
Income tax	A tax levied directly on your earnings
Student loan repayments	When a percentage of your pay is deducted to pay for your student loan
Pension	A fixed amount paid to people who have retired
National insurance	A deduction from earnings which is used to pay for welfare payments

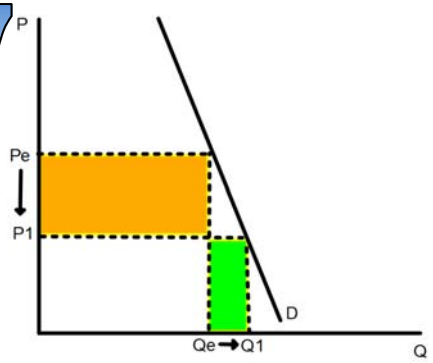
6

Revenue
Revenue is what firms earn when they sell their goods and services. It can be calculated by multiplying the quantity sold by the price it was sold at (P x Q)

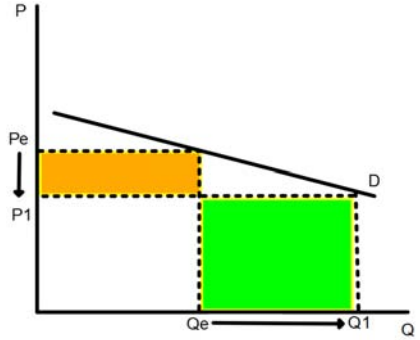


Elasticity and pricing strategy
Firms can use PED to help set their prices and make more revenue. If a firm sells a good like petrol with inelastic demand, then it can make more revenue by *increasing* its prices (see number 7)

7



Price elasticity of demand and revenue
Inelastic demand—when demand is inelastic, the percentage change in demand is less than the percentage change in price. This diagram shows the impact of a fall in the price. Some revenue is lost through the price falling. Some revenue is gained by the quantity increasing. Overall, revenue falls.



Price elasticity of demand and revenue
Elastic demand—when demand is elastic, the percentage change in demand is greater than the percentage change in price. This diagram shows the impact of a fall in the price. Some revenue is lost through the price falling. Some revenue is gained by the quantity increasing. Overall, revenue increases.

8

PED factors
These factors determine whether consumers' response to price changes will be elastic or inelastic
1. Luxury vs necessity
If something is a necessity then the percentage change in demand will be lower then the percentage change in the price
2. Percentage of income spent
The more of our income we spend on a good, the more sensitive our demand will be to changes in price
3. Habit forming goods
If we are addicted to something, then our demand will be less sensitive to price changes
4. Price and availability of substitutes
If there are cheap substitutes for a good we demand then we will be very sensitive to price changes

9

PES factors
These are the factors determine whether firms' response to price changes will be elastic or inelastic
1. Spare capacity
The more spare capacity firms have (to produce), the more responsive their output will be to price changes
2. Production lags
The longer it takes to produce something , the less responsive firms will be to price changes
3. Stock levels
The more stock levels firms have, the more responsive their output will be to price changes
4. Transferability of factors of production
The more a firm can switch resources from one use to another the more responsive it will be

Introduction to Economics - 3

1

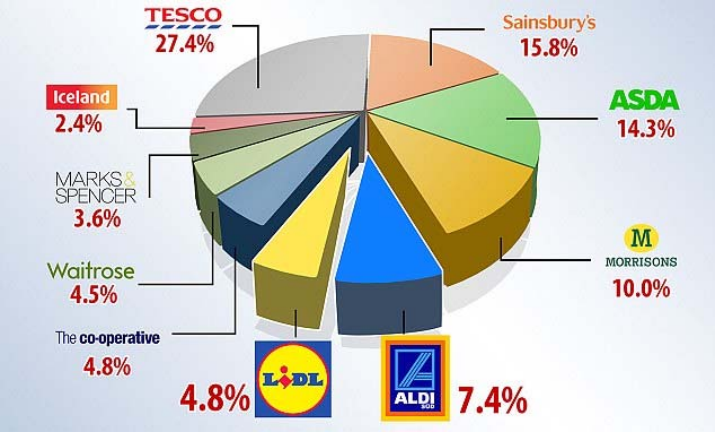
Prices	
Price Mechanism	The way in which changes in price reflect changes in supply and demand, allowing the market to correct itself.
Surplus (Excess Supply)	When supply of a good is greater than the demand for it.
Shortage (Excess Demand)	When the demand for a good is greater than the supply of it.
Allocation of Resources	How scarce resources are distributed among producers and then allocated to consumers
Signalling	Changes in prices signal changes in the need for resources. Higher prices show the need for more resources.
Rationing	When resources are scarce, prices rise and only those willing to pay higher prices are allocated that resource.
Equilibrium	When the quantity demanded is equal to the quantity supplied (the optimal production and distribution of resources)

2

Competition	
Competition	When different firms are trying to sell a similar product to consumers.
Price competition	When firms lower their prices in order to attract consumers.
Non-price competition	When firms use marketing, the quality of customer service or the product itself to attract consumers.
Monopoly	A single producer of a good or service in a market.
Legal monopoly	A producer with at least 25% market share.
Oligopoly	Where a small number of firms control a majority share of a market.
Barriers to Entry	Factors which prevent firms from joining a market e.g. start-up costs, research costs or marketing costs.

4

Financial markets	
Debit card	Takes money directly from your bank account. It won't work if you don't have enough
Credit card	Enables you to buy something 'on credit' and pay for it later if you don't have the money now
Central bank	E.g. Bank of England. Acts as bank for the other banks and the Government. Controls interest rates and prints bank notes
Medium of Exchange	Something of an agreed value which can be used to buy goods and services e.g. money
Investment	A) Purchasing capital goods which will produce other goods in the future B) Purchasing an asset to provide a future income or to sell at a profit later
Commercial bank	A profit making bank e.g. Barclays which takes money from some customers as savings and lends to others as loans and mortgages
Building society	A mutual financial institution, owned by its members (customers)
Mortgage	A financial agreement to borrow money in order to purchase a house
Interest rate	The cost of borrowing money
Insurance company	Financial institution which consumers can pay a premium to guarantee compensation for loss, theft or damage, illness or death
Liquidity	How easy it is to turn an asset into cash



5

Economies of scale	
Economies of scale	The cost advantages firms gain as they increase the scale of their production (as they grow)
Technical economies	Larger firms are able to purchase specialist equipment
Economies of increased dimensions	Larger firms can benefit from much larger capacity storage and transport through slight increases in dimensions
Purchasing economies	Larger firms can bulk-buy and negotiate lower prices for their raw materials
Division of labour	Larger firms are able to divide work into separate tasks so workers can specialise
Financial economies	Larger firms can borrow money at lower rates of interest because they are seen as less risky
Managerial economies	Larger firms can employ specialist managers for different functions
Marketing economies	Larger firms are able to use methods like television and newspapers with a wide reach and can spread these costs over a wider range of goods and services
R&D economies	Larger firms are able to invest heavily in research and development to come up with innovative new products
Risk bearing economies	Larger firms are able to take risks with new products or ideas as they have a range of other products to rely on

6

Production	
Production	The total output of a firm or industry over a period of time.
Productivity	How efficiently factors are used to produce output.
Labour productivity	Output per worker per time period.
Productivity calculation	$\frac{\text{Total output}}{\text{Total input}}$
Average cost (AC)	The cost of producing each unit: $\frac{TC}{Q}$
Total cost (TC)	All costs added together: FC + VC
Total revenue (TR)	The total income of the firm from selling goods and services: P X Q
Average revenue (AR)	Income per unit sold: $\frac{TR}{Q}$
Profit	Money left over once all costs have been paid. When TR > TC

GCSE English Knowledge Organiser: Language Paper 1 Exam: Explorations in Creative Reading & Writing

A. Language

Terminology	Definition	Example
1. **Noun**	A word used to identify people, places or things, or to name a particular one of these	*London, table, family, bridge, happiness*
2. **Adjective**	A word used to describe or modify a noun	*Big, fast, red, shiny, unpleasant*
3. **Comparative adjective**	A word used to compare two nouns	*Bigger, faster, happier, better*
4. **Superlative adjective**	A word used to compare three or more nouns	*Biggest, fastest, happiest, best*
5. **Verb**	A word used to describe an action, state or occurrence	*To run, to be, to laugh*
6. **Imperative verb**	A verb used to give a command or order	*Sit down. Stop that. Be quiet.*
7. **Adverb**	A word that describes or gives more information about a verb and often ends '-ly'	*Quickly, gently, ferociously*
8. **Alliteration**	The occurrence of the same letter or sound at the beginning of adjacent or closely connected words	*Clammy cold,*
9. **Sibilance**	The repetition of 's' sounds within adjacent or closely connected words	*Silvery sky; sweet birds sang*
10. **Simile**	A figure of speech involving the comparison of one thing with another using 'like' or 'as'	*The coach swayed… like a drunken man.*
11. **Metaphor**	A figure of speech in which a word, object or idea is used in place of another to suggest a likeness	*A granite sky; their home was a prison*
12. **Personification**	To give human qualities to an inanimate object, animals or nature	*The thunder roared; the shrieking wind*
13. **Juxtaposition**	Placing contrasting ideas close together in a text	*Bittersweet, deafening silence, sweet sorrow*
14. **Triplets**	When three words/short phrases are used in a text	*A raging, fierce, howling wind*
15. **Emotive language**	Specific words which create an emotional response in the reader	*Could you abandon helpless puppies to a life in filthy kennels?*
16. **Hyperbole**	The use of exaggerated terms for emphasis	*I am so tired I could sleep for a whole year!*
17. **Symbolism**	The use of symbols to represent ideas or qualities	A rose=love
18. **Tone**	The general mood or atmosphere in a text	
19. **Pathetic fallacy**	To attribute human feelings and responses to inanimate things or animals	
20. **Dialogue**	A conversation between two or more people	

B. Structure

Terminology	Definition
1. **Beginning, Middle, End**	The simplified stages of a text or narrative
2. **Focus**	The centre of interest or activity
3. **Shift**	The move from one place or focus to another
4. **Foreshadowing**	A warning or prediction of a future event
5. **Perspective**	A particular attitude towards or way of regarding something; a point of view
6. **Cliff-hanger**	A dramatic and exciting ending, leaving the reader in suspense
7. **Tricolon**	A rhetorical term that consists of three parallel clauses, phrases, or words, which come in quick succession without any interruption
8. **Repetition**	Using a word twice or more for emphasis
9. **Paragraphing**	Sections of a text used to separate and structure ideas according to time, place or focus
10. **Pace**	The speed of the action or events in the story

C. Describing emotions

Emotions	Synonyms for this emotion
1. **Anger**	Agitation, aggravation, annoyance, contempt, hostility, irritation, rage
2. **Discomfort**	Annoyance, disquiet, embarrassment, uneasiness, vexation, worry
3. **Fear**	Alarm, concerned, horror, insecurity, mortification, panic
4. **Happiness**	Delight, eagerness, enthusiasm, hopefulness, joy
5. **Hate**	Hatred, disgust, dislike, hostility, animosity, revulsion, contempt, bitterness, loathing
6. **Love**	Affection, care, compassion, desire, longing, passion, tenderness
7. **Sadness**	Despair, disappointment, dismay, hurt, isolation, regretful
8. **Surprise**	Confused, dismayed, shocked, speechless
9. **Tension**	Apprehensive, stressed, strained, worried

D. Academic Language

Alternatives for shows	Alternatives for emphasises
Introduces, establishes, conveys, creates, demonstrates, explores, implies, indicates, represents, suggests, communicates, signifies, depicts, symbolises, illustrates, reveals	Accentuates, highlights, reinforces, strengthens, supports
Alternatives for contrasts	**Tentative language**
Juxtaposes, shifts, conflicts with, subverts, goes against, opposes	This could suggest…/This might imply…/This may indicate…/Perhaps this reveals…/It could be said that…

GCSE English Knowledge Organiser: Literature Paper 1 Exam: *A Christmas Carol* by Charles Dickens

G.Key Settings		H. Themes	
Setting & Stave	**Significance**	Transformation	a complete change in the appearance or character of something or someone, especially so that that thing or person is improved
Victorian London (all)	* City of contrasts: new buildings/affluence vs. slums/extreme poverty * Bustling with a large population, highlighting the extent of Scrooge's isolation	Redemption	an occasion when someone is saved from evil or suffering
		Guilt	a feeling of worry or unhappiness that you have because you have done something wrong, such as causing harm to another person:
Scrooge's counting-house (1)	* Small, cold, dark * Reflects Scrooge's personality at the beginning	Regret	a feeling of sadness about a mistake that you have made, and a wish that it could have been different and better:
		Repentance	to be very sorry for something bad you have done in the past and wish that you had not done it
Scrooge's house (1)	* Grand but neglected with few possessions * Reflects Scrooge's miserly nature	Isolation	the condition of being alone, especially when this makes you feel unhappy OR when something is separate and not connected to other things
Scrooge's bedroom (all)	* Where Marley appears * Every encounter with a ghost begins and ends in this room	Greed	a very strong wish to continuously get more of something, especially food or money
		Avarice	an extremely strong wish to get or keep money or possessions
Boarding school (2)	* Grand building but chilly and bare inside * Reflects Scrooge's detachment and isolation as a child	Social responsibility	the practice of producing goods and services in a way that is not harmful to society or the environment
Fezziwig's (2)	* Bright, busy, warm warehouse; Christmas party * Stark contrast to Scrooge and his life	Charity	a system of giving money, food, or help free to those who are in need because they are ill, poor, or have no home, or any organization that has the purpose of providing money or helping in this way
Cratchit house (3)	* Small, cosy, proud and welcoming family home * Shows life of a family in poverty and that there are more important things than money/possessions * Stark contrast to Scrooge alone in his grand mansion	Ignorance	lack of knowledge, understanding, or information about something
		Family	a group of people who are related to each other, such as a mother, a father, and their children
		Selfishness	Someone who is selfish and only thinks of their own advantage
The churchyard (4)	* Cold, solemn, overrun by grass and weeds * Scrooge's neglected grave reflects his isolation and selfishness	Class	a group of people within society who have the same economic and social position
		Benevolence	Being kind and helpful

KNOWLEDGE ORGANISER FOR YEAR 10 FRENCH GCSE - CYCLE 1

1) Activities		Time phrases continued		Adjective - activities contd		Places where you live cntd		directions and preposition	
je fais a manger	I make something to eat	Demain	tomorrow	le cœur	the heart	un port de pèche	fishing port	au derrièr	behind
j'écoute de la musique	I listen to music	La semaine prochaine	next week	le corps	the body	des forets	forests	**15) Local problems**	
je vais au parc	I go to the park	le mois prochain	next month	la concentration	concentration	le lac	lake	les déchets par terre	rubbish on the floor
je sors avec mes amis	I go out with friends	cet après midi	this afternoon	ça demande	it demands	la gare	station	le chômage	unemployment
je mange chez un copain	I eat at a mate's place	ce soir	this evening	une excellente forme	excellent shape	la ferme	farm	la circulation	traffic
je danse en boite	I dance in a club			physique	physique	des champs	fields	le bruit	noise
je chate	I chat	**6) Direct object pronouns - "it"**		une bonne coordinatio	good coordination	une piste de ski	ski slopes	les voisins	neighbours
je vois un film	I see a film	Je le fais	I do it	de bons reflexes	good reflexes	une rivière	river	c'est sale	it's dirty
je parle	I speak	Je le mange	I eat it	ça me	it ...me	un fleuve	stream	**16) Tense - Past tense**	
je promène	I go for a walk	Je les adore	I love them!	fait rire	makes me laugh	**13) La maison - Home**		je suis allé	I went
je lis un bon roman	I read a good novel	Je l'aime	I love(it/him/her)	du bien	some gooid	le salon	livining room	j'ai été	I had been
2) Other activities		Je l'adore	I love him/it/her	ça provoque	it causes	la chambre	bedroom	j'ai eu	I had had
Faire de l'escrime	To do fencing	Je les déteste	I hate them!	une dépendance	addiction	la cuisine	kitchen	il y a eu	There had been
faire du footing	to do jogging			ça m'aide a	it helps me to	les escaliers	stairs	il a été	It had been
faire de la natation	to do swimming	**7) Quantifiers**		me reposer	relax	la salle de bain	bathroom	j'ai fait	I did
faire de patin a glace	to do ice skating	Très	after having...	me décompresser	decompress	la salle a manger	dining room	j'ai mangé	I ate
faire de l'équitation	to do horse riding	un peu	arrived	**11) Sequencers**		le jardin	garden	j'ai chante	I sang
voir un spectacle	to see a show	assez	eaten	Au début	at the beginning	les toilettes	toilets	j'ai dessine	I drew
jouer à des jeux vidéos	to play computer games	trop	done	d'abord	first of all	le fauteuil	arm chair	j'ai pu	I could
				ensuite	then	la commode	drawers	j'ai du	I had to
		8) Opinions		puis	then	le bureau	desk	j'ai lu	I read
3) Time phrases - Present		Quant a moi	According to me	après ça	after that	le microonde	microwave	**17) Tense - Present**	
En général	generally	A mon avis	In my opinion	enfin	finally	le four	oven	dans ma ville il y a	In my town there is
d'habitude	usually	Je crois que	I believe that	premièrement	firstly	le frigo	fridge	c'est	it's
toujours	always	Je pense que	I think that	deuxièmement	secondly	la porte	door	j'ai	I have
de temps en temps	from time to time	**9) Le temps - The weather**						je suis	I am
souvent	often	**L'imparfait**	**It was....**	**Au Futur simple**	**It will .....**	**au présent**	**its .....**	Je vais	I go/I'm going
rarement	rarely	il pleuvait	it was raining	il pleuvra	rain	il pleut	raining	je mange/joue	I eat/ I play
quelquefois	sometimes	Il neigeait	it was snowing	il neigera	snow	il neige	snowing	je fais	I do
de fois	sometimes	il faisait froid	it was cold	il fera froid	be cold	il fait froid	cold	**18) Tense - Imperfect**	
jamais	never	il faisait chaud	it was hot	il fera chaud	be hot	il fait chaud	hot	C'était	it was
4) Time phrases- past		il y avait du brouillard	it was foggy	il y aura du brouillard	be foggy	il y a du brouillard	foggy	il y avait	here was
Depuis + time	since...	il y avait du vent	it was windy	il y aura du vent	be windy	il y a du vent	windy	j'étais	I was
hier	yesterday					**14) Directions & Prepositions**		je devais	I had to
la semaine dernière	last week	**10) Adjectives - activities**		**12) Places where you live**		à gauche de	left of	j'allais	I used to go
le mois dernier	last month	éducatif	educational	un centre sportif	sports centre	à droite de	right of	je faisais	I used to do
hier soir	yesterday evening	fascinant	fascinating	un cinéma	sinema	tout droit	straight ahead	je mangeais	I used to eat
l'année dernière	last year	chouette	great	une musée	museum	près de	near	j'aimais	I used to like
5) Time phrasese future		ludique	playful	un parc d'attractions	amusement park	proche	close	j'avais	I used to have
cet été	this summer	facile	easy	une église	church	à côté de	next to	je pouvais	I used to be able to
cet hiver	this winter	sympa	nice	une bibliothèque	library	loin de	far from	je lisais	I used to read
l'année prochaine	next year	bien pour...	good for..	un vignoble	vines	en face de	facing	je buvais	I used to drink
ce printemps	this spring	la santé	health	des collines	hills	devant	infront	je joueais	I used to play

Year 11 French Key Structures – Cycle One

1 *General opinions*	
A mon avis	In my opinion
Personellement	Personally
Je dirais que	I would say that
Je pense que	I think that
Selon moi/ quant a moi	From my point of view
Sans doute	Without a doubt
Pour moi	For me

2) Time phrases	
Toujours	Always
De temps en temps	From time to time
Souvent	Often
Quelquefois	Sometimes
Jamais	Never

3) Opinions pour l'avenir	*Opinions for the future*
Je veux	I want
J'espere	I hope
J'ai envie de	I feel like
J'aimerais	I would like
J'ai l'intenstion de	I have the intention to
Ca me dit de	I fancy

4) Sequencers	
D'abord	Firstly
Puis	Then
Ensuite	Next
Après	After
Enfin	Finally

5) Connectifs	*Connectives*
Aussi/en plus	Also
Pourtant	However
Toutefois	However
Malgré	Despite
Néamoins	Although
De l'autre coté	On the other hand
D'un coté D'autre coté	On the one hand… on the other hand
donc/ par la suite	Therefore
Donc	So
A cause de	Due to
However	cependant
Malheureusement	Unfortunately
heureusement	fortunately
Egalement	equally
Par exemple	For example
En faite	In fact
Apart de	Apart from
Meme	Even
Car	Because
Parce que	Because
Puisque	Because

6) Question words	*Les questions*
Où	Where
Comment	How
Qu'est ce que	What(do)
Quel	What (is)

7)	*Positive adjectives*
Merveilleux	Marvellous
Formidable	Wonderful
Une perte/gaspillage	A waste
Chouette	Great
Divertissant	Entertaining
Douillette	cosy
Ludique	Playful
Fascinante	Fascinating
Impresionante	Impressive
Lumineuse	light
Fabuleux	Fabulous
Agréable	Pleasant
Utile	Useful
Sympa	Nice
Spacieuse	spacious

8)	Positive reasons
Je m'entends avec	I get on with
On s'entends bien	we get on
On s'aime	We love each other
ça m'aide à me reposer	It helps me to relax
C'est ma passion	It's my passion
Ca m'aide a me détendre	It helps me relax
Ça me detends	It relaxes me
Je me sens bien	I feel good
Ça m'interesse	It interests me
C'est utile	It's useful

9)	*Negative adjectives*
montone	Boring
Calm	quiet
Barbant	Boring
désagradable	Unpleasant
Sale	Dirty
Agacant	Stressful
Tranquil	Calm
Dangereux	Dangerous
Deprimante	Depressing
Sombre	Dark
Animé	Busy
Inquietante	Worrying
Nul	Rubbish
Bruyant	Noisy
Vide	empty

10)	Negative reasons
Je me dispute	I argue
C'est une perte de temps	It's not worth it
C'est un gaspillage de temps	It helps me forget everything
Ça m'inquiete	It worries me
Je m'ennuie	I get bored
Ça me fatigue	It tires me
Ça m'énerve	It annoys me

Global Development

EDEXCEL A GCSE GEOGRAPHY (9-1)

A. KEYWORDS	
Development	The process of improving QOL in a country.
Foreign Direct Investment	When a company invests in a company in another country.
Infrastructure	the basic physical and organisational structures and facilities in a society
Multiplier Effect	A process where one change leads to a bigger knock-on effect.

B. DEVELOPMENT INDICATORS	
Gross Domestic Product	The value of goods & services produced by a country in a year, per person
Literacy Rate	The percentage of adults in a country who can read and write
Doctors per thousand	Total number of doctors per 1000 population (low = less developed)
HDI	GNI + life expectancy + average years of education = (low) 0.01-0.99 (high)

C. FACTORS AFFECTING DEVELOPMENT		
Climate	Locations that are too hot /cold are more isolated and less developed	
Location	Landlocked countries (no coastline) can struggle to trade and develop	
History	Historical links with industry (deindustrialisation) or with empires	
Government policy	Government can choose to invest in some areas, so they're more developed	
Physical	Political	Economic

D. BIHAR	
Location	Northern India
Population	99 million
Economy	80% work in agriculture
GDP per capita	20,708 rupees
Literacy Rate	64%
Access to drinking water	4% of population
HDI score	0.536

E. GOA	
Location	West coast of India
Population	1.8 million
Economy	Tourism
GDP per capita	168,572 rupees
Literacy Rate	79%
Access to drinking water	85% of population
HDI score	0.779

F. CHANGE IN INDIA	
Social	Life expectancy improved from 54yrs – 68yrs since 1985.
Population	1.3bn people. Higher proportion elderly, more economically active
Economy	Primary ↓ (26%) Secondary ↑ (to 22%) Tertiary ↑ (52%)
Geopolitics	Ongoing disputes over Kashmir with Pakistan sine 1947.
Technology	>50% of India's broadband connections were in 5/29 states.
Aid	Now gives more aid than receives.
Investment	Trade barriers reduced since 1990's. Encouraged more FDI and allows gvt to spend money on public e.g. education
Inequality	Widening gap between rich and poor with women, elderly and rural suffering

G. EFFECTS OF RAPID DEVELOPMENT		
Increase in tourism (+)	(-) Desertification	
Potential to invest in renewable energy (+)	(-) Cost of dealing with environmental damage	
Better access care (+)	(-) Increased CO2 emissions	
Better jobs and income = reduced poverty (+)	(-) Lack of housing = slums and shanty towns	
Social	Economic	Environmental

H. MANAGING RAPID DEVELOPMENT	
INDC (government)	Developing clean energy and afforestation
Smart Cities Mission	100 cities improved infrastructure

Changing Landscapes of the UK

EDEXCEL A GCSE GEOGRAPHY (9-1)

A. EROSION	
Abrasion	Rocks in water scratching river/sea bed
Hydraulic Action	Water forcing air into gaps, forcing them to become bigger.
Attrition	Rocks becoming smaller and smoother
Solution	Rocks reacting with slightly acidic water

B. WEATHERING	
Biological	Animals and roots from plants can weaken rocks = easy to erode
Mechanical	Water in small gap freezes and expands, breaking open the rock. This process repeats.
Chemical	Slight acidity in rainwater can cause rocks to dissolve over time.

F. GEOLOGY	
Igneous	Made from cooled lava from volcanoes. Very resistant.
	E.g. basalt, granite
Sedimentary	Formed of layers of material such as fossils built over time
	Eg. chalk, sandstone
Metamorphic	Pressure: heat/weight.
	E.g. slate, schist

C. TRANSPORTATION	
Traction	Boulders roll along sea/river bed
Saltation	Stones are bounced along bed.
Suspension	Small particles carried in the water
Solution	Minerals are fully dissolved in water

D. MASS MOVEMENT	
Slumping	Movement of material in a slump
Sliding	Movement along bedding planes

E. OTHER PROCESSES	
Longshore Drift	Movement of sediment along beach
Deposition	The laying down of material

G. RIVER KEYWORDS			
Source	Start of river	Infiltration	Water going into soil
Mouth	End of river	Tributary	Small river joins another

J. COASTS KEYWORDS	
Constructive waves	Strong swash. Encourages deposition = beach
Destructive waves	Strong backwash. Encourages erosion = steep cliffs

H. CAUSES OF FLOODING			
Physical		Human	
Geology	Granite = impermeable	Urbanisation	More impermeable
Snowmelt	More water in Spring	Agriculture	Deforestation
Drainage	Steep = water-> river fast		

K. COASTAL LANDFORMS			
Erosion Landforms		Deposition Landforms	
Bays	Made of soft eroding rock	Beach	Built up deposition
Stump	Cave, arch, stack, stump	Spit / Bar	Extension of land off coast

I. RIVER MANAGEMENT			
Hard Engineering		Soft Engineering	
Dams and reservoirs	Barriers (dams) to hold water in artificial lakes	Floodplain zoning	Not building in areas at risk of flooding
Channelisation	Making the river wider and deeper	Washlands	Allow areas to flood

L. COASTAL MANAGEMENT			
Hard Engineering		Soft Engineering	
Sea Wall	Can be curved to reflect waves back to sea	Offshore Reef	Man-made under water structure
Groynes	Perpendicular structures stop LSD	Beach replenish	Adding sand / pebbles to beach
Rip Rap	Large boulders	Sand dunes	Stabilised with plant

The early problems of the Weimar Republic, 1918-1923	
1. **Unpopularity**	* 11th November 1918 – **armistice** was signed * Politicians of the Weimar Republic referred to as the **November Criminals**
2. **Weak constitution**	**Proportional representation** * Proportional representation allowed many political parties to win seats in the **Reichstag** * No party won a majority in the Reichstag creating a series of **coalition governments** * Coalition governments were **ineffective** in meeting the needs of the German people
	Article 48 * Pass laws and appoint **Chancellors** without the vote of the **Reichstag** * The President could use **Article 48** to suspend the constitution in an emergency * Article 48 was used frequently and undermined the principles of democracy
3. **The Treaty of Versailles**	* Signed 28th June 1919 * Imposed harsh terms designed to **weaken** and **punish** Germany * 13% of German land was lost * 6 million German citizens lost * 48% of iron production removed * **Anschluss** with Austria was banned * Army could not exceed 100,000 soldiers
	* £6.6 billion in **reparations** * **War Guilt Clause** = Germany had to accept complete blame * '**Stabbed in the Back**' myth
4. **Political instability**	**4a. The Spartacist Uprising, January 1919** * The Spartacist League were part of the German Communist Party (KPD) * **Left-wing** communists * The *Freikorps* (ex-army officers) were used to put down the uprising * Leaders of the uprising were captured and killed
	4b. The Kapp Putsch, March 1920 * **Wolfgang Kapp** was a extreme **right-wing Politian** * Kapp won the support of the *Freikorps* who helped him take control of Berlin * **Trade unions** supported the Weimar Republic and organised a strike
	4c. The Munich Putsch, November 1923 * Hitler attempted to march on Berlin and seize power * von Lossow and von Seisser withdrew their support and reported Hitler * The SA only had 2,000 riffles and were no match for the police * Hitler was **imprisoned** and published *Mein Kampf*
5. **The occupation of the Ruhr, 1923**	* **The Ruhr** = a highly industrial area in Germany * **Rhineland** = a demilitarised 'corridor' of land between France and Germany * Reparation payments were set at £100 million a year * Germany failed to meet its reparation payments in January 1923 * The French invaded the Rhineland and **occupied** the Ruhr * This was met with **passive resistance** and **German sabotage**
6. **Hyperinflation**	* The French occupation of the Ruhr caused **hyperinflation** * The Weimar Republic printed vast amounts of money to meet reparation payments * The value of the German mark decreased rapidly * Millions of Germans lost their savings

The 'golden age' of the Weimar Republic, 1924-1929	
7. **Economic recovery**	**Dawes Plan, 1924** * **Stresemann** persuaded the Allies to reduce Germany's reparation payments * Manageable payments of 1 billion marks a year * The Ruhr was to be evacuated by the French in 1925 * The USA would provide $3 billion in loans to Germany
	Rentenmark, November 1923 * Stresemann introduced the new currency to stop **hyperinflation** * New currency was more valuable because it was based on property
	The Young Plan, 1929 * Reduced Germany's reparations to £1.8 billion * Extended time Germany had to pay back to **59 years**
	Unemployment * Unemployment had risen to 9 million by 1926 * Loans from the USA led to investment in infrastructure creating jobs * By 1929 unemployment was at 6 million
8. **Foreign policy**	**The Locarno Pact, 1925** * An agreement between Germany, Britain and France * Germany agreed to keep its boarders showing it accepted the Treaty of Versailles * France became less defensive and were willing to co-operate with Germany
	The League of Nations, 1926 * Germany was granted a seat on the **Council** * This confirmed Germany's status as a **Great Power**
	The Kellogg-Briand Pact, 1928 * 64 countries agreed to work together peacefully to stop another world war * Another reminder of Germany's **international prestige** (status)
9. **Political stability**	* Increased support for the Weimar Republic during this period * The moderate **Social Democrats** won the most seats in the Reichstag * President **Hindenburg** was elected in 1925 and provided strong leadership
10. Social changes	**Standard of living** * By 1928 Germany had some of the best paid workers in Europe * Middle class Germans had been bankrupted by inflation and could not find suitable jobs
	Housing * By 1931 more than 2 million new homes were built * By 1928 homelessness had been reduced by 60 per cent
	Unemployment insurance * Introduced in 1927 * National scheme for unemployment welfare * There were also benefits for veterans, single mothers and the disabled
	Woman * Women over 20 were given the vote * Women enjoyed greater independence

The rise of the Nazis	
11. **The early Nazi Party, 1919 - 1923**	**The DAP = German Workers' Party** * Founded in 1918 by Anton Drexler * Hitler joined the DAP in 1919 * Name changed to NSDAP (Nazi) in 1920
	25 Point Programme * **Political manifesto** outlining Hitler's main ideas * Included scrapping the Treaty of Versailles and blaming Jews
	The SA * The Nazi paramilitary group * Led by Ernnst Rohm * Known as 'Brownshirts' due to their uniform
	* Membership of the Nazi Party grew rapidly * 55,000 members by November 1923 * Following the Munich Putsch in 1923 the Nazi Party was banned
12. **The Nazi Party, 1924-29**	* Hitler wrote his best-selling book *Mein Kampf* while in Prison * Hitler was released from prison in December 1924
	Bamberg Party Conference, 1926 * Hitler won over rivals and strengthen his position as the one leader of the party * Hitler created **the SS** - his own bodyguard unit * The SS became known as the 'Blackshirts'
	* By 1928 the Nazi Party had 100,000 members * The Nazis won 12 seats in the 1928 Reichstag election * Stresemann's successes meant less people supported extremist parties
13. **The Great Depression**	* Caused by the Wall Street Crash of October 1929 * 3.2 million people were unemployed by the end of 1929 * Loans from the USA were withdrawn * German **exports** fell rapidly * By 1932 6 million Germans were unemployed
14. **Support for the Nazis after 1930**	**Propaganda** * **Josef Goebbels** led Nazi propaganda * By 1930 the Nazis owned 120 newspapers * 'Work and Bread' was a common slogan used on posters * Nazi messages were often heard on the radio
	Success in elections * In the 1930 election the Nazis became the second biggest party (107 seats) * Hitler won 13 million votes in the 1932 presidential election * Hitler lost the 1932 presidential election to Hindenburg * In the July 1932 elections the Nazis became the biggest party (230 seats)
15. **Political scheming**	* Chancellor **von Papen** arranged for new elections in November 1932 * In the November 1932 elections the Nazis were still the biggest party (196 seats) * Hitler demanded to be chancellor * Hindenburg and von Papen believed they could control Hitler * Hitler was appointed chancellor through **democratic means**

Hitler's consolidation of power	
16. **The Reichstag Fire, February 1933**	* January 1933 Hitler was appointed Chancellor * The Nazis still did not have a majority in the Reichstag * New elections were planned for 5th March 1932 * A week before the elections the Reichstag building was set on fire * Van der Lubbe (a communist) was blamed for the fire * Hindenburg signed the '**Decree for the Protection of the People and State**' * Hitler was given emergency power to protect Germany from the communists * Hitler used the SA to arrested communists
17. **The Enabling Act, March 1933**	* 5th March 1933 elections the Nazis won 288 seats * The Nazis still did not have a majority * The Enabling Bill was designed to give Hitler emergency powers for 4 years
	* Hitler banned communists from voting * The SA intimidated members of the Reichstag * Absentees were counted as present * Hitler made promises to the **Catholic Centre Party** to secure their votes * The Enabling Bill was passed with 444 votes
18. **Gleichschaltung** (Bringing into line), **May 1933**	**Trade unions** * The **German Labour Front** (DAF) replaced trade unions in May 1933 * The DAF decided wages and employment * Strikes were outlawed in Germany
	Political parties * Political parties were disbanded using force and violence * July 1933 the Law against the Formation of Parties was passed * Germany a **one party state**
	State governments * Germany made up of 18 ***Landers*** * State governments were banned by Hitler * Hitler appointed **Reich governors** to oversee the Landers
19. **The Night of the Knives, June 1934**	* 2 million SA members in 1934 * **Rohm** wanted to incorporate the army into the SA * The army generals would not swear loyalty to Hitler because of Rohm * Hitler saw Rohm and the SA as a threat to his leadership
	* Night of 30th June 1934 Hitler used **the SS** to purge the SA * Rohm and over 400 SA officers were shot dead * Hitler declared the dead 'enemies of the state'
	* The SA was made part of the SS * **Himmler** (leader of the SS) was promoted * Hitler's position was unrivalled
20. **Fuhrer, August 1934**	* August 1934 President Hindenburg died * The position of Chancellor and President were combined * Hitler called Fuhrer (leader) of Germany

Nazi economic, social and racial policies	
21. **Control over the economy**	* By 1933 Germany had experienced more than 3 years of economic depression * Unemployment stood at 6 million
	National Labour Service (RAD) * Short time employment for men aged between 18 – 25 * Men lived in camps, wore uniforms and carried out military drills * Compulsory from 1935
	Job creation schemes * Increased spending from 18 billion in 1933 to 37 billion in 1938 * 7,000km of autobahns (motorways) were created
	Rearmament * Reintroduction of conscription 1935 * The army grew to 1.4 million by 1939
	Invisible unemployment * Official figures were designed to keep unemployment low * Dismissed Jews, women and political opponents were not included * Men part of the RAD were counted as employed
22. **Control over workers**	**German Labour Front (DAF)** * Replaced trade unions to prevent strikes * Largest organisation in Nazi Germany with 22 million members by 1939 * Control over regulations, pay and hours of work
	Strength Through Joy (KdF) * Workers received discounted trips, concerts and holidays * Beauty of Work organisation aimed to improve working environments * 1938 Volkswagen scheme allowed workers to save 5 marks a week for a car
23. **Women**	* **Three Ks** = children, kitchen and church * 1933 **Law for the Encouragement of Marriage** provided loans to help couples marry * The **Motherhood Cross** was given to women with large families * **Lebensborn Programme** (1936) unmarried women to 'donate a baby to the Fuhrer'
24. **Young people**	* **Indoctrination** used to make young people loyal Nazis * Boys at school focused on military preparation * Girls at school focused on domestic skills needed for motherhood * Textbooks were rewritten to reflect Nazi views
	* The Hitler Youth Law of 1939 made membership compulsory * By 1939 there were 7 million members
25. **Persecution of the Jews**	* **Anti-Semitism** = hatred and discrimination towards Jews * 1933 boycott of Jewish shops and businesses by the SA * 1935 **Nuremberg Laws** – Jews lost rights and their German citizenship * 1935 **Law for the Protection of German Blood** made it illegal for Jews to marry Aryans
	1938 **Kristallnacht** * Over 7,000 Jewish shops and 400 synagogues destroyed * 100 Jews were killed and 30,000 sent to concentration camps * Jews were fined 1 billion marks as compensation for damages

Nazi terror and persuasion	
26. **The Nazi police state**	* **Police state** = a country where civil rights are supressed through fear and intimidation * From 1934 onwards Germany was a police state due to the actions of the SS and Gestapo
	* By 1934 the SS had 50,000 members * SS officers had to prove their pure Aryan blood
	* **The Gestapo** could arrest and imprison Germans without a trial * By 1939 160,000 people had been arrested by the Gestapo for political crimes
27. **The legal system**	* **Nazi League for the Maintenance of Law and Order** forced judges to accept Nazi policies * In 1934 a new People's Court was created to try enemies of the state * By 1939 500 people had been sentenced to death for political crimes
28. **Propaganda**	* 1934 - the **Ministry for Popular Enlightenment and Propaganda** was set up by Goebbels * By 1939 70% of German families owned a radio, helping to spread Nazi messages * An annual rally was held in Nuremberg attended by 100,000 people to show Nazi power
29. **Censorship**	* Newspapers were heavily censored by the Nazis * All books were censored with over 2,500 writers being banned * May 1933 – Goebbels organised the public burning of "un-German" books in Germany

Hitler's foreign policy	
30. **Aims**	* Reverse the Treaty of Versailles * Unite all German speaking people * **Lebensraum** – to get living space in eastern Europe for the growing German population
31. **Disarmament**	* 1933 - **Disarmament Conference** * Germany demanded that other nations matched the level of their armed forces * France refused giving Hitler justification to build German forces to match other nations
32. **Rearmament**	* October 1933 - Hitler withdrew Germany's membership from the **League of Nations** * 1935 - **Conscription** was reintroduced * The army grew from 100,000 in 1933 to 1.4 million in 1939
33. **Rhineland**	* 1936 – Hitler re-occupied the **Rhineland** * No action from the Allies encouraged Hitler to break the Treaty of Versailles further
34. **Alliances**	* **Mussolini** = fascist leader of Italy * 1936 – **Rome-Berlin Axis** = Alliance between Germany and Italy * 1936 – **Anti-Comintern Pact** = Alliance between Germany and Japan
35. **Anschluss**, 1938	* Hitler threatened invasion and the Austrian Chancellor resigned * The new Chancellor asked Hitler to send troops to restore order * Under the influence of the Nazis 96% of Austrians voted for *Anschluss*
36. 1938 – **Sudetenland crisis**	* **Sudetenland** = an area of Czechoslovakia with 3 million German speakers * September - **Munich Conference** between Hitler and Neville **Chamberlain** (British PM) * October - **Munich Agreement** = The Sudetenland would be returned to Germany * March 1939 – Hitler instructed troops to invade and occupy the rest of Czechoslovakia
37. **Outbreak of WW2**	* August 1939 – Nazi-Soviet Pact signed between Germany and the USSR * 1st September 1939 – Germany invaded Poland * 3rd September 1939 – Britain and France declare war on Germany

1. ICT

1. Storage Devices

Optical – Uses light from lasers to read and write on discs.
Examples include CDs and DVDs.
☺ Small
☺ Portable
☺ Fast access to data
☹ Fragile, easy to snap or scratch
☹ Small storage capacity
☹ Large in size

Magnetic – Data is stored in the form of tiny magnetized dots.
An example is a hard drive.
☺ Cheapest form of storage per megabyte
☺ Can store large amounts of data
☺ Very easy to update/delete
☹ Slower to access data
☹ Can be damaged easily when a computer is not shut down properly
☹ Not always portable

Solid State – These devices are based on electronic circuits with no moving parts.
Examples include USB sticks, Memory Cards and SIMS.
☺ Fast access to data
☺ Durable – it can keep data safe even if dropped
☺ No noise while in operation
☹ Expensive (per gigabyte)
☹ Limited storage capacity
☹ Shorter lifespan than magnetic storage

2. Types of storage

Internal – Storage that is built within a computer system e.g. hard drive

External – Any type of storage that is connected to a computer but it not integrated within it e.g. USB

3. Data and Information

Data – Raw facts and figures with no context or meaning

Information – When data is given context and meaning

Converting data into information – data + [structure] + [context] = information

Example:

Data – 18
Information – The bus 18 goes to Paddington

4. SMART targets

S – Specific: clearly defined or identified
M – Measurable: able to get measured
A – Achievable: able to be brought about or reached successfully
R – Realistic: representing things in a way that is accurate
T – Timed: measure the time taken

5. Data collection methods

Questionnaires/surveys – A set of questions with a choice of answers. It can be printed on paper or can be completed electronically
☺ A large number of people can answer quickly and easily
☹ Participants can skip questions or not really understand the questions

Interviews – This is when an interviewer asks the respondent a set of questions
☺ Allows for more detailed questions to be asked
☹ Only a small amount of people can be interviews as each interviews takes a long time to complete

Consumer panels – This is when a group of customers are chosen to answer research questions for a particular product
☺ Data gained is very specific
☹ The people chosen for the panel can be influenced from each other

Loyalty schemes – A reward program offered by a company to customers who frequently buy from them
☺ Data is easily accessible
☹ Lacks qualitative data

Secondary research – Collecting existing research rather than conducting it yourself
☺ It is free and quick
☹ Data might not be relevant for what you are trying to find

6. Malware

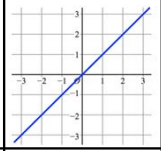
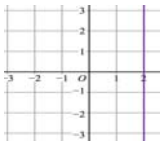
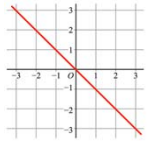
Malware – Software that is specifically designed to disrupt, damage or harm you or your computer
Adware – Software that automatically displays or downloads adverts when a user is online
Ransomware – Software designed to block access to your computer until a sum of money is paid
Spyware – Software that records what you do on your computer, designed to capture your passwords/banking information
Virus – A piece of code that copies itself that tries to corrupt, destroy and steal your data

MATHS CYCLE ONE

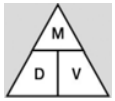
A: Linear graphs

Equation of a straight line	$y = mx + c$
Gradient	m
y-intercept	c
Gradient between (x_1, y_1) and (x_2, y_2)	$\frac{y_2 - y_1}{x_2 - x_1}$
Parallel lines…	… have the same gradient
Midpoint of the line between (x_1, y_1) and (x_2, y_2)	$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$
Gradient of a perpendicular line **H**	The negative reciprocal of m
Two lines are perpendicular if… **H**	…their gradients multiply to make -1

B: $y = x$, $y = c$ and $x = c$

$y = x$		$x = 2$	
$y = -x$		$y = -1$	

C: Compound measures

$Speed = \frac{Distance}{Time}$	
$Density = \frac{Mass}{Volume}$	
$Pressure = \frac{Force}{Area}$	

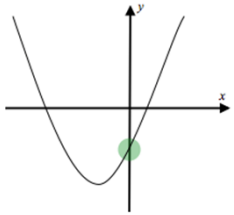
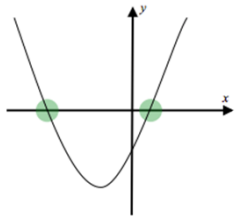
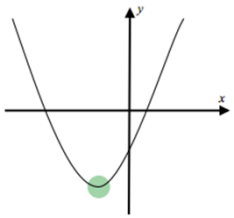
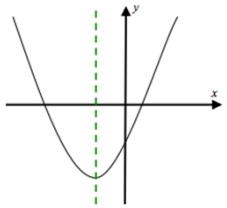
D: Conversions

km → m	× 1000
km² → m²	× 1000²
km³ → m³	× 1000³
m → cm	× 100
m² → cm²	× 100²
m³ → cm³	× 100³
cm → mm	× 10
cm² → mm²	× 10²
cm³ → mm³	× 10³
1 litre = _____ ml	1 l = 1 000 ml
1 litre = _____ cm³	1 l = 1 000 cm³
1 tonne = _____ kg	1 t = 1 000 kg
1 kilogram = _____ g	1 kg = 1 000 g
1 gram = _____ mg	1 g = 1 000 mg

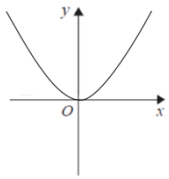
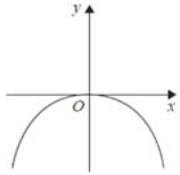
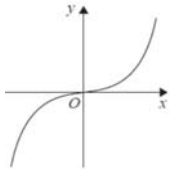
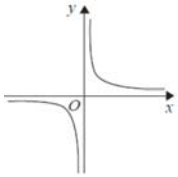
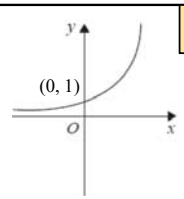
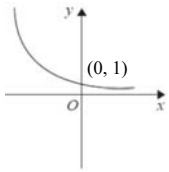
E: Reciprocals

Reciprocal of x	$\frac{1}{x}$
Reciprocal of $\frac{1}{x}$	x

F: Quadratic graphs

y-intercept	
Roots *or* Solutions of f(x) = 0	
Turning point	
Line of symmetry	

G: Further graphs

	$y = x^2$
	$y = -x^2$
	$y = x^3$
	$y = \frac{1}{x}$
H 	$y = a^x$
H 	$y = -a^x$

MEDIA BTEC LEVEL 1/2 KNOWLEDGE ORGANISER 1; MEDIA PRODUCTS, AUDIENCES, PURPOSES

MEDIA PURPOSES	
INFORMATION	To inform the audience about something.
ENTERTAINMENT	To excite the audience.
ESCAPISM	To distract people from everyday lives.
PROFIT	To make money.
COMMUNITY BENEFIT	To help a society or group.
RAISING AWARENESS	To highlight an important issue.
CRITICAL ACCLAIM	To be recognised by critics and reviewers.
INSPIRATION	To motivate people.
INNOVATION	To promote new technology or methods.
EXPERIMENTATION	To trial new technology or methods.

MEDIA INDUSTRIES	
AUDIO/MOVING IMAGE	TV, Film, Radio, Animation etc.
PUBLISHING	Newspapers, Magazines etc.
INTERACTIVE MEDIA	Websites, Apps, mobile games, gaming etc.

AUDIENCE PROFILES	
DEMOGRAPHICS	Splitting audiences based on social groups.
PYSCHOGRAPHICS	Splitting audiences based on personality

KEY TERMS	
Gender	Whether an audience identifies as male or female
Age	How old the audience are.
Target Audience	Who a product is aimed at.
Secondary Audience	Any smaller groups that may also be attracted to a product.
Genre	The category or style of a media product.
Hybrid Genre	A combination of more than one genre.
Sub-genre	A small and precise part of a genre.
Iconogra-phy	The way a genre, style or certain range of products looks.
Themes	The big ideas or images that repeat in a product.
Mode of address	The way that a product 'talks' to an audience.
Setting	Where a text takes place.
Intertextu-ality	Connections between more than one text.

AUDIENCE PROFILING	
A	High management, Bank-ers etc.
B	Middle management, teachers etc.
C1	White collar, clerical
C2	Skilled manual labourers
D	Semi/Unskilled manual labourers
E	Unemployed, students, pensioners

PRODUCTION PROCESS		
1	PRE-PRODUCTION	Planning for production work
2	PRODUCTION	The actual making of the product
3	POST-PRODUCTION	Any editing and reworking needed
4	DISTRIBUTION	Getting the product in to the world
5	EXHIBITION	Showing the product to the audience

KEY IDEAS	
RE-PRESENTATION	Media is a version of the truth, not truth itself.
SEMIOTICS	Study of signs and sym-bols
STEREOTYPES	Exaggerated versions of groups, or people.
DENOTATION	What a text literally shows
CONNOTATION	What images and words in a text can repre-sent and create links too.

MEDIA BTEC LEVEL 1/2 KNOWLEDGE ORGANISER 2; GENRE, NARRATIVE, REPRESENTATION AND AUDIENCE INTERPRETATION

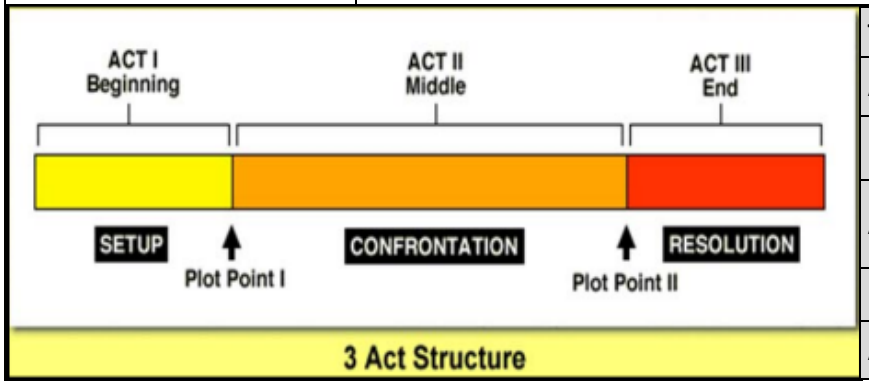
TODOROV		NARRATIVE THEORY
Five stages to every story		
1	EQUILIBRIUM	Normal/Usual life
2	DISRUPTION	A problem happens
3	RECOGNITION	The problem is recognised
4	REPAIR	An attempt to solve the problem
5	NEW EQUILIBRIUM	Return to normal, or new way of life after events

NARRATIVE DEVICES	
CAUSE AND EFFECT	Showing the reasons for action before the action.
ELLIPSIS	Missing/Skipping information or time.
WITHHOLDING AND RELEASING	Revealing information gradually to maintain interest and mystery.
ENGIMA CODES	Questions left unanswered.
BINARY OPPOSITES	Contrasts that impact on response.

NARRATIVE, STORY OR PLOT?	
STORY	A series of events.
PLOT	The order of events in a film, including how long each event is focused on for.
NARRATIVE	The combination of story and

NARRATIVE STRUCTURES	
LINEAR/ CHRONOLOGICAL	Action that is shown in the order that it happened.
DUAL NARRATIVE	A film split between two narrative perspectives.
MULTI NARRATIVE	A film split in to more than two narrative perspectives.
META-FICTIVE NARRATIVE	Action framed by a narrator; a story within a story.
FRAGMENTED NARRATTIVE	A deliberately non-linear narrative.

KEY TERMS	
Target Audience	Who a product is aimed at.
Secondary Audience	Any smaller groups that may also be attracted to a product.
Genre	The category or style of a media product.
Hybrid Genre	A combination of more than one genre.
Sub-genre	A small and precise part of a genre.
Iconography	The way a genre, style or certain range of products looks.



THREE ACT STRUCTURE	
ACT 1	Introduction of setting, protagonist, antagonist and problem.
PLOT POINT 1	The inciting incident: Turns the story in a new direction.
ACT 2	At least half of the story, in which the protagonist tries to resolve the problem.
PLOT POINT 2	The climactic turning point: A solution is offered to the problem.
ACT 3	The conflict is resolved and narrative closure is provided.

MEDIA GCSE KNOWLEDGE ORGANISER 1; INDUSTRY, PRODUCTS, PROCESSES AND AUDIENCE

MEDIA INDUSTRIES

FILM | TELEVISION | INTERACTIVE SOCIAL PARTICIPATORY MEDIA | PRINT (NEWSPAPERS) | PRINT (MAGAZINES) | ADVERTISING AND MARKETING | RADIO | MUSIC AND MUSIC VIDEOS

STUART HALL	**AUDIENCE RECEPTION THEORY**
How media producers transmit messages to audiences	
ENCODED MESSAGES	Messages that the media producers put in to their products.
DECODED MESSAGES	Messages that are taken out of media products by audiences.
DOMINANT READING	When an audience member accepts the encoded message without questioning it.
NEGOTIATED READING	When an audience member partially accepts the encoded message, bringing their own experiences, culture etc. to their interpretation.
OPPOSITIONAL READING	When an audience member completely disagrees with the encoded message, again bringing their own experiences, culture etc. to their interpretation.

STRAUSS	**BINARY OPPOSITES**
BARTHES	**ENIGMA AND ACTION CODES**
ENGIMA CODE	Questions left unanswered by withheld information.
ACTION CODE	Plot is driven by significant moments of action.

TODOROV		**NARRATIVE THEORY**
Five stages to every story		
1	EQUILIBRIUM	Normal/Usual life
2	DISRUPTION	A problem happens
3	RECOGNITION	The problem is recognised
4	REPAIR	An attempt to solve the problem
5	NEW EQUILIBRIUM	Return to normal, or new way of life after events

PRODUCTION PROCESS		
1	PRE-PRODUCTION	Planning for production work
2	PRODUCTION	The actual making of the product
3	POST-PRODUCTION	Any editing and reworking needed
4	DISTRIBUTION	Getting the product in to the world
5	EXHIBITION	Showing the product to the audience

BULMER AND KATZ	**USES AND GRATIFICATIONS**
Why we access media products because they are useful to us and/or they provide entertainment.	
DIVERSION	Allows escape from everyday lives.
PERSONAL RELATIONSHIPS	Developing friendships by talking about the media we use.
SURVEILLANCE	Seeking information about what is happening in our world
PERSONAL IDENTITY	Story or characters we can relate to

MEDIA GCSE KNOWLEDGE ORGANISER 2; PRINT (MAGAZINES AND NEWSPAPERS) - TATLER AND REVEAL & THE TIMES AND THE DAILY MIRROR

MAGAZINE FEATURES	
MASTHEAD	Bold, large writing at the top of
SWEET SPOT	Area of the cover that most
COVER LINE (Sell lines)	Phrases that give information
MAIN COVER LINE	Indication of the main story/
HOUSE STYLE	Unique style of a magazine that
COLOUR SCHEME	The range of colours utilised on
MAIN IMAGE	The large and central image on
DIRECT MODE OF ADDRESS	When the subject of the image appears to be looking at the audience.

REVEAL	
CIRCULATION	111,807
READERSHIP	267,000
WOMEN	95% (253,600)
MEN	5% (12,400)
AVERAGE AGE	28
CORE AUDIENCE	18-34

TATLER	
CIRCULATION	80,035
READERSHIP	163,000
AB	51%
ABC1	83% (135,000)
WOMEN	73% (119,000)
MEN	27% (44,000)
AVERAGE AGE	41
AGE 15-24	22% (36,000)
AGE 25-34	20% (32,000)
AGE 35-44	18% (29,000)
AGE 45+	40% (66,000)

AUDIENCE PROFILING	
A	High management, Bankers etc.
B	Middle management, teachers etc.
C1	White collar, clerical
C2	Skilled manual labourers
D	Semi/Unskilled manual labourers
E	Unemployed, students, pensioners

	THE TIMES (% of all NP readers)	THE DAILY MIRROR (% of all NP readers)
CIRCULATION	440,558	583,192
READERSHIP	1,245,000	1,528,000
OWNERSHIP	News UK	Reach plc
POLITICAL LEANING	Middle Right	Right
WOMEN	9%	10%
MEN	9%	11%
AGE 16-34	10%	18%
AGE 65+	8%	11%
ABC1	15%	8%
C2DE	2%	15%

AUDIENCE PROFILING	
Demographic	Dividing an audience up in to sections based on ethnicity, age, class etc.
Psychographic	Dividing an audience up in to sections based on their personality.

Christianity- Beliefs & Teachings

Section 1: Key Concepts

Omniscient	The state of being all-knowing and all-seeing
Omnibenevolent	The state of being all-loving and infinitely good
Omnipotent	The state of being all-powerful, almighty and unlimited.
Trinity	The three persons of God: God the Father, Son and Holy Spirit.
Incarnation	God becoming human in the form of Jesus.
Atonement	The belief that Jesus' death on the cross healed the rift between humans and God.
Resurrection	The belief that Jesus rose from the dead on Easter Sunday, conquering death.
Sacraments	An outward sign of an invisible and inward blessing by God, for example baptism, eucharist.
Evangelism	Preaching of the gospel to others with the intention of converting others to the Christian faith.

Section 2: Key beliefs and Key Evidence

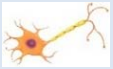
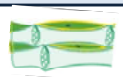
Nature of God	**Omnibenevolent**	❖ "For God so loved the world that he gave his one and only Son" ❖ "Nothing will separate us from the love of God"
	Omnipotent	❖ God created the universe **ex nihilo** (out of nothing) which demonstrated his unlimited power. ❖ God used his omnipotence and sent 10 plagues to the Egyptians to prove he was most powerful. He split the Red Sea for Moses which also demonstrates His power
Evil and suffering	**Inconsistent Triad**	**Epicurus** - If God can't stop evil then he can't be omnipotent. If he is able to stop evil, but chooses not to, he can't be omnibenevolent. This led Epicurus to question why people believed in this God.
	Theodicies	Original Sin- The Fall- Free Will- the story of Adam and Eve disobeying God. Test of faith- the story of Job in the Bible. Soul making theodicy- suffering shapes us into better people.
Creation	**Conservative-** Literal interpretation of the Bible account (word for word truth).	**Liberal-** Read the Bible account as a symbolic story. Day might represent 24 million years for each stage.
	❖ "In the beginning God created the heavens and the earth" and "God said "Let there be light" and there was light"	
Trinity/ Incarnation	❖ "I and the Father are One" ❖ "Jesus answered 'I am the way and the truth and the life. No one comes to the Father except through me" ❖ "He will be great, and will be called the Son of the Most High" ❖ "The Word became flesh and made his dwelling among us"	
Crucifixion	❖ **"To give my life as a ransom for many." -"Father forgive them, for they do not know what they do".** ❖ In the New Testament, Jesus is called the **'Lamb of God.' -"**For God so loved the world that he gave his one and only Son"	
Resurrection	❖ "I am the resurrection and the life, those who believe in me will live even after they dies". ❖ Jesus said during the Last Supper: **"This is my body, which is for you; do this in remembrance of me."**	

Salvation	**Hick**	**Jacobus**	**Calvin**
	Ultimately all humans will be saved because the concept of hell is incompatible with the goodness of God'.	Christ's sacrifice has made salvation possible for those who repent and follow Jesus.	God has predestined some of his creation to hell.

Section 3: Life after death

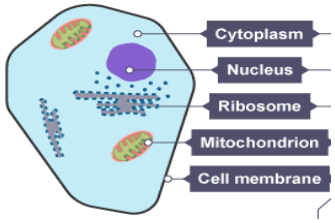
Resurrection	❖ "The body is sown perishable, but raised imperishable". ❖ "I am the resurrection and the life. The one who believes in me will, even though they die; and whoever lives by me will never die".
Judgement	❖ "I am the resurrection and the life. The one who believes in me will, even though they die; and whoever lives by me will never die" & "My father's house has many rooms"
Heaven & hell	Purgatory- Catholic view – waiting room for heaven. You are cleansed and made pure before going to heaven. Catholics pray for the souls in heaven.

Biology Topic 1: Cells (Paper 1)

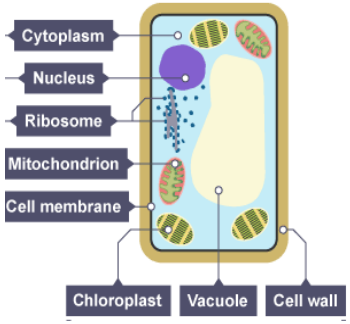
1	**Eukaryotic**	A complex cell with a nucleus (e.g. animal/plant cells)
2	**Prokaryotic**	A smaller cell without a nucleus (e.g. bacterial cell)
3	**Nucleus**	Contains DNA that controls the cell's activities.
4	**Cytoplasm**	Where a cell's chemical reactions happen.
5	**Cell membrane**	Controls what goes into and out of a cell.
6	**Ribosome**	Part of a cell where proteins are made.
7	**Mitochondria**	Where aerobic respiration takes place.
8	**Cell wall**	Only found in plant cells. Made of cellulose and supports the cell.
9	**Vacuole**	Only in plant cells. Contains cell sap.
10	**Chloroplasts**	Only in plant cells. Where photosynthesis takes place.
11	**Plasmid**	Only found in bacterial cells. A small loop of DNA.
12	**Flagellum**	Only found in bacterial cells. Used for swimming.
13	**Sperm cells**	Take male DNA to the egg ❑ Tail to help it swim ❑ Lots of mitochondria for energy 
14	**Nerve cells**	Carry electrical impulses around the body ❑ Long to cover long distances ❑ Myelin sheath speeds up the impulses ❑ Branches to connect to other cells 
15	**Muscle cells**	Muscle cells contract ❑ Long so have space to contract ❑ Lots of mitochondria for energy 
16	**Root hair cells**	Root hair cells absorb water and minerals ❑ Long hairs ❑ Big surface area for absorption 
15	**Phloem cells**	Phloem cells transport sugars (plants) ❑ Long tube joined end to end 
16	**Xylem cells**	Xylem cells transport water (plants) ❑ Long tubes joined end to end ❑ Hollow so water can flow through 

17	**Electron microscope**	Higher magnification and resolution than a light microscope, allowing you to see smaller organelles (e.g. ribosomes).
18	**Magnification equation**	Actual size = Image Size / Magnification 
19	**Cell cycle**	❑ Cell growth ❑ Chromosomes copied ❑ Mitosis
20	**Mitosis**	A type of cell division that produces 2 genetically identical daughter cells for the growth and repair of tissues.
21	**Cell differentiation**	When a cell becomes specialised
22	**Stem cell**	An undifferentiated cell. 2 types: ❑ Embryonic – can become any cell type ❑ Adult – can become some cell types (e.g. bone marrow stem cells
23	**Meristem**	The part of a plant that contains stem cells. These cells could be used to clone rare plant species or those with features desirable to farmers.
24	**Diffusion**	Spreading out of particles from an area of higher concentration to an area of lower concentration.
25	**Osmosis**	The movement of water molecules across a partially permeable membrane from a dilute to a more concentrated solution.
26	**Active Transport**	Movement from a lower concentration to a higher concentration, against the concentration gradient. Requires energy.
27	**Exchange surface**	A place adapted for the exchange of substances with the blood – e.g. alveoli in the lungs, villi in the small intestine and gills in fish
28	**Features of exchange surfaces**	Increase the rate of diffusion: ❑ Large surface area ❑ Thin walls – short diffusion distance ❑ Good blood supply

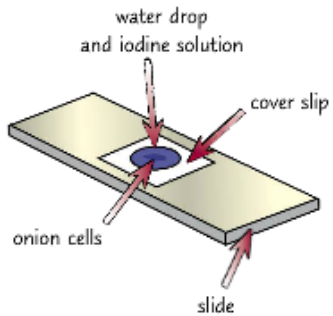
Animal cell:



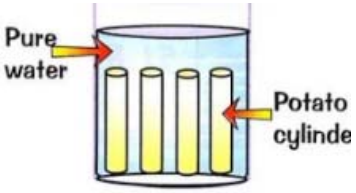
Plant cell:



Making a microscope slide:



Osmosis experiment:



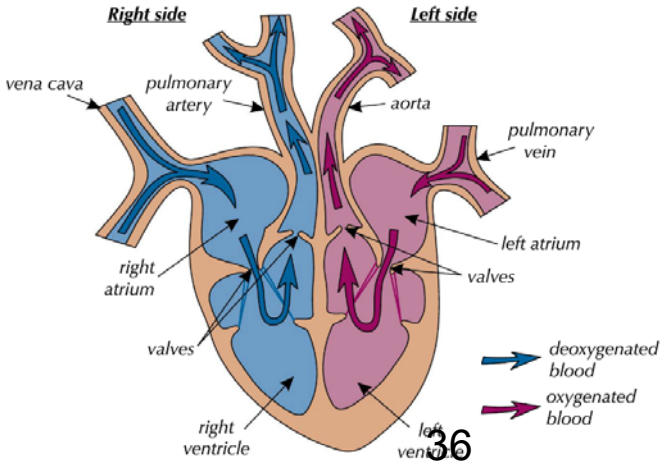
In Pure Water the potato tubes swell because water enters their cells by osmosis.

Biology Topic 2: Organisation (Paper 1)

1	**Cell**	Building block of life
2	**Tissue**	A group of similar cells that work together to complete a function
3	**Organ**	A group of different tissues that work together to complete a function
4	**Organ System**	A group of organs working together to complete a function
5	**Iodine**	Turns blue/black when added to starch.
6	**Benedict's reagent**	Turns brick red when heated with reducing sugars (e.g. glucose).
7	**Biuret reagent**	Turns lilac when added to protein.
8	**Sudan III test**	Forms a bright red layer when mixed with lipids.
9	**Enzyme**	A protein molecule that acts as a biological catalyst.
10	**Substrate**	A molecule that is broken down by an enzyme.
11	**Active site**	The part of an enzyme that the substrate fits into.
12	**Amylase**	Enzyme that breaks down starch into sugars. Produced in the salivary glands and the pancreas.
13	**Protease**	Enzyme that breaks down proteins into amino acids. Produced in the stomach and the pancreas.
14	**Lipase**	Enzyme that breaks down lipids into glycerol and fatty acids. Produced in the pancreas.
15	**Bile**	A liquid that neutralises stomach acid & emulsifies fats. Produced in the liver and stored in the gall bladder.
16	**Denatured**	When the active site of an enzyme changes shape, so the substrate can no longer fit.
15	**Factors affecting enzyme activity**	❑ High temperatures cause enzymes to denature ❑ Very high or very low pH cause enzymes to denature ❑ Substrate concentration ❑ Enzyme concentration
16	**Red blood cell**	Carry oxygen to body cells. Biconcave disc shape gives them a large surface area. Contain haemoglobin, which binds to oxygen.

17	**White blood cell**	Part of the immune system, which defends us against infection by microbes. Some engulf microbes; others produce antibodies.
18	**Platelets**	Small fragments of cells, responsible for blood clotting.
19	**Plasma**	Liquid that carries cells, nutrients, hormones, water and urea.
20	**Arteries**	Blood vessels that take blood away from the heart. They have thick muscular walls and elastic fibres to cope with high pressure.
21	**Veins**	Blood vessels that take blood back to the heart. They have valves to prevent the backflow of blood and a large lumen.
22	**Capillaries**	Blood vessels that carry blood to every cell. They are 1 cell thick to provide a short diffusion distance.
23	**Coronary heart disease**	When the coronary arteries, which supply the heart with blood, are blocked by fatty deposits. This restricts the supply of oxygen to the heart and can cause heart attack.
24	**Stent**	A surgical device inserted into an artery to keep it open, as a treatment for heart disease.
25	**Statins**	A drug that reduces the amount of cholesterol in the blood, reducing the risk of heart disease. Some side effects – e.g. headaches / memory loss.
26	**Communicable disease**	Can be spread between people – e.g. measles and malaria.
27	**Non-communicable disease**	Cannot be spread between people – e.g. asthma and cancer.
28	**Cancer**	Uncontrolled cell division leading to the build-up of a tumour.
29	**Malignant tumour**	When tumour cells break off and spread to other parts of the body through the bloodstream, which can be fatal. Tumours that do not spread are called benign.

30	**Epidermal tissue**	Covers the surface of a leaf
31	**Palisade tissue**	Where most photosynthesis takes place in the leaf, as the cells have many chloroplasts.
32	**Xylem**	Tubes that carry water and mineral ions from the roots to the leaves. Made of dead cells and strengthened with lignin.
33	**Phloem**	Tubes that carry sugars from the leaves to other parts of the plant (known as translocation). Made of long cells with pores in each end.
34	**Stomata**	Pores in the lower epidermis that allow gases to diffuse in and out of the leaf.
35	**Guard cell**	Responsible for opening and closing the stomata. Stomata close at night to prevent water loss.
36	**Transpiration**	Loss of water from a plant. Water moves up the xylem and then evaporates from the stomata.
37	**Factors affecting transpiration**	❑ Light intensity ❑ Temperature ❑ Air flow ❑ Humidity

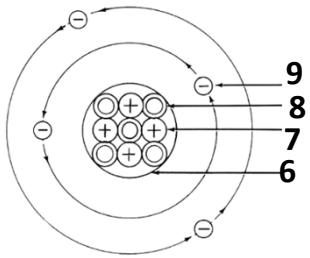


Chemistry Topic 1: Atoms & Periodic Table (Paper 1)

1	**Element**	A substance in which all the atoms have the same atomic number.
2	**Atom**	The smallest possible particle of an element. Has a radius of 0.1nm (or $1x10^{-10}$m).
3	**Molecule**	Two or more atoms bonded together
4	**Compound**	Two or more <u>different</u> atoms bonded together
5	**Mixture**	At least two different elements or compounds together. Can be separated easily.
6	**Nucleus**	The centre of an atom, it contains protons and neutrons. Radius of $1x10^{-14}$m
7	**Proton**	Found in the nucleus, it has a charge of +1 and a relative mass of 1.
8	**Neutron**	Found in the nucleus of an atom, it has a charge of 0 and a mass of 1
9	**Electron**	Found in the shells of an atom, it has a charge of -1 and a negligible mass
10	**Electron shells**	❑ First shell contains maximum 2 electrons ❑ Second shell contains maximum 8 electrons ❑ Third shell contains maximum 8 electrons ❑ First shell fills first, then second, then third
11	**Atomic Number**	The number of protons in an atom.
12	**Atomic mass**	The total of protons and neutrons in an atom.
13	**Isotope**	2 isotopes of the same element are atoms with the same number of protons but different numbers of neutrons.
14	**Relative atomic mass**	The average mass of 2 or more isotopes, weighted according to the abundance of each isotope.
15	**Periodic table**	A list of elements. Metals are found on the left; non-metals are found on the right.
16	**Period**	A row in the periodic table.

17	**Group**	❑ A column in the periodic table. ❑ Group number = number of electrons in the atom's outer shell. ❑ Elements in the same group have similar properties.
18	**Mendeleev**	Invented the first periodic table, which had gaps for undiscovered elements and was arranged according to atoms' mass (rather than the atomic number, which we use today).
19	**Metal**	❑ High melting and boiling points ❑ Good conductors of heat & electricity ❑ Malleable (can be hammered into shape)
21	**Alkali metals**	❑ Group 1 = 1 electron in outer shell ❑ React with water to produce hydrogen gas and a hydroxide ❑ Increasing reactivity down the group
22	**Halogens**	❑ Group 7 = 7 electrons in outer shell ❑ More reactive halogens will displace less reactive ones ❑ Decreasing reactivity down the group
23	**Noble gases**	❑ Group 0 = 8 electrons in outer shell ❑ Unreactive because of their full outer shell ❑ All colourless gases at room temperature ❑ Higher boiling point down the group
24	**Chromato graphy**	Used to separate a mixture of dyes in ink.
25	**Filtration**	Used to separate insoluble solids from liquids (e.g. sand from water).
26	**Evaporation**	Used to separate a soluble salt from solution. Solution is heated strongly in an evaporating basin until crystals are left.
27	**Crystallisation**	Used to separate a soluble salt from solution. Solution is heated gently in an evaporating basin until crystals form.
28	**Simple distillation**	Used to separate a liquid from a solution – e.g. water from ink. A condenser is used to cool hot gas until it forms a liquid.
29	**Fractional distillation**	Used to separate a mixture of liquids with different boiling points.

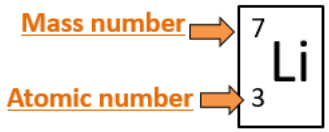
Structure of an atom:



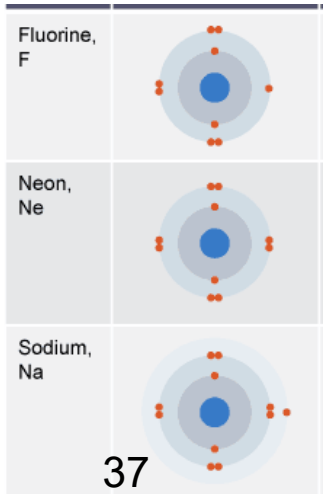
Subatomic particles:

Particle	Relative Mass	Charge
Proton	1	+1
Neutron	1	0
Electron	Very small	–1

Chemical symbols:



Electron arrangements:



Physics Topic 1 – Energy (Paper 1)

Energy

1	**Energy stores**	Thermal (heat) – Kinetic (moving) – Gravitational potential (GPE) – Elastic potential – Chemical (e.g. batteries, food, fuel) – Magnetic – Electrostatic - Nuclear
2	**Energy transfers**	Energy is stored in objects and transferred by waves, electric current, heating or when a force moves an object.
3	**Conservation of Energy**	Energy can be transferred usefully, stored or dissipated, but never created or destroyed.
4	**Joules (J)**	The unit of energy. 1kJ = 1000J
5	**Dissipated**	When energy is transferred in a way that is not useful – e.g. to the thermal energy store of the surrounding air partcles.
6	**Energy transfer in falling objects**	❑ GPE decreases and kinetic energy increases. Energy lost from GPE store = Energy gained in kinetic energy store. ❑ On impact, energy is transferred to the thermal energy store of the surroundings.
7	**Energy transfer in bungee jumping**	❑ When the rope is slack GPE is transferred to kinetic ❑ When the rope tightens it slows the fall, kinetic energy decreases and the elastic potential energy store of the rope increases
8	**Energy in Pendulums**	A pendulum has maximum kinetic energy (travelling fastest) in the middle of the swing, at either side it has maximum GPE.

Equations

1	**Gravitational Potential Energy (GPE)**	As an object is lifted work is done to overcome gravitational force on the object, this energy is stored as GPE.
2	**Change in GPE**	= weight (N) x change in height (m) = mass (kg) x gravitational field strength(N/kg) x change in height (m)
3	**Kinetic Energy**	Kinetic energy = $\frac{1}{2}\ x\ mass\ (kg)\ x\ speed\ (m/s^{\ 2})$
4	**Work Done**	Work is done when a force makes an object move. The force transfers energy, the amount of energy transferred = work done.
5	**Work Done**	Work Done (J) = Force (N) x distance moved (m)
6	**Friction**	Work done to overcome friction is transferred as energy to the thermal store of the objects that rub together.
7	**Wasted Energy**	Wasted energy is dissipated (spread out) increasing the thermal energy store of the surroundings.
8	**Efficiency**	$=\frac{\text{useful output energy transferred by device}}{\text{total input energy supplied to the device}} = \frac{Useful\ Power}{Total\ Power}$
9	**Improving Efficiency**	❑ Streamline objects to reduce air resistance ❑ Use low resistance wires to reduce heating effect ❑ Lubricate moving parts to reduce friction ❑ Tighten loose parts to reduce vibration noise
10	**Power (Watts)**	The rate an applicance transfers energy. $=\frac{\text{energy transferred to } the\ appliance\ (J)}{\text{time taken for energy to be transferred (s)}}$
11	**Specific Heat Capacity**	Energy needed to raise the temperature of 1kg of a substance by 1°C.
12	**Thermal Conductivity**	The lower the thermal conductivity the better at insulating
13	**Thermal Insulators**	Loft insulation, cavity wall insulation and double glazed windows all reduce heat loss from buildings.

Energy Resources

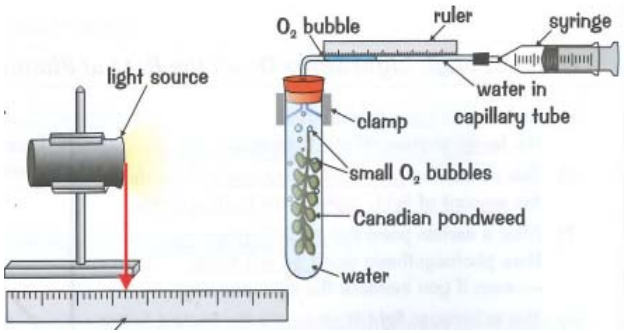
1	**Renewable**	An energy resource is one that is being replenished as it is used – e.g. wind power.
2	**Non renewable**	An energy resource that cannot be replenished, so will run out – e.g. coal.
3	**Uses of energy resources**	❑ Transport ❑ Heating ❑ Generating electricity
4	**Coal, Oil, Gas**	❑ Are burnt heating water which turns to steam turning a turbine which turns a generator producing electricity. ❑ Key advantages: Reliable, gas is the quickest to start up ❑ Key concerns: Non-renewable & release CO_2, which causes global warming, coal mines are unsightly
5	**Nuclear**	❑ Fission produces heat which turns water to steam turning a turbine and a generator producing electricity. ❑ Key concern: Long start up time, produces dangerous waste, expensive to decommission (shut down)
6	**Biofuel**	❑ Fuel made of living things e.g. animal waste, waste vegetable oils and plants. ❑ Is carbon-neutral as the CO_2 the organism takes in balances the amount released when the fuel is burnt. ❑ Key concern: Leads to deforestation to create farmland
7	**Geothermal**	❑ Hot rocks underground produce heat which turns water to steam turning a turbine and a generator producing electricity. ❑ Key concern: Can only be built in volcanic areas
8	**Tidal**	Floating generators move up and down, the motion causes the generator to produce electricity. Key concern = Spoils view & disrupts habitats
9	**Hydroelectric**	Falling water turns a turbine producing electricity, few locations suitable for this in the UK. Key concern = Leads to large areas of land being flooded.

Biology Topic 4: Bioenergetics (Paper 1)

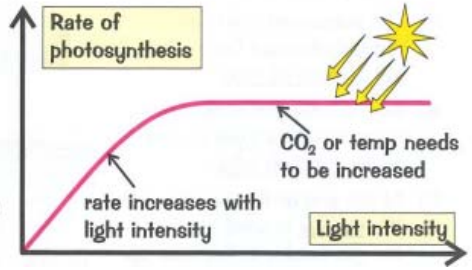
1	**Photosynthesis**	An endothermic reaction that uses energy to change carbon dioxide and water into glucose and oxygen.
2	**Chloroplast**	The part of the cell where photosynthesis occurs. Contains a green pigment, chlorophyll.
3	**Chlorophyll**	A green pigment found in chloroplasts that absorbs light energy. May be limited in plants that are diseased or lack nutrients.
4	**Photosynthesis equation**	carbon dioxide + water $\xrightarrow{\text{light}}$ glucose + oxygen $6CO_2 + 6H_2O \xrightarrow{\text{light}} C_6H_{12}O_6 + 6O_2$
5	**Uses of glucose in plants**	❑ Respiration to release energy ❑ Making cellulose for cell walls ❑ Combining with nitrate ions to make amino acids ❑ Making oils, fats or starch for energy storage
6	**Effect of light intensity**	Increasing light intensity increases the rate of photosynthesis – until another factor limits the rate.
7	**Effect of carbon dioxide concentration**	Increasing carbon dioxide concentration increases the rate of photosynthesis – until another factor limits the rate.
8	**Effect of temperature**	Increasing temperature increases the rate of photosynthesis. Above a certain temperature, the rate may decrease, as enzymes are denatured.
9	**Sodium hydrogen carbonate**	Used to increase the amount of carbon dioxide dissolved in water when investigating photosynthesis
10	**Respiration**	An exothermic reaction which transfers energy from glucose and happens in the mitochondria of every cell
11	**Uses of energy**	❑ To build up large molecules from small molecules ❑ Movement ❑ Keeping warm

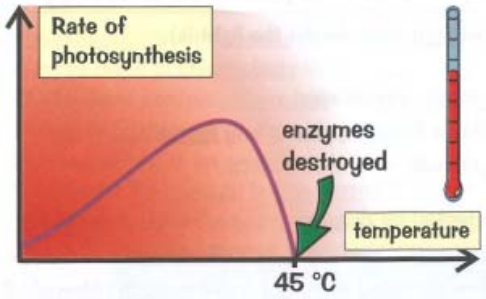
12	**Aerobic respiration**	Respiration using oxygen glucose + oxygen → carbon dioxide + water $C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$
13	**Anaerobic respiration**	❑ The incomplete breakdown of glucose that takes place when there is not enough oxygen present ❑ In animals: Glucose → Lactic Acid
14	**Fermentation**	❑ Anaerobic respiration in plants and yeast ❑ Glucose → Ethanol + Carbon dioxide ❑ Used in making bread, beer and wine
15	**Exercise**	❑ More muscle contraction ❑ More energy needed ❑ Greater rate of respiration
16	**Effects of exercise on the body**	❑ Increased heart rate ❑ Increased breathing rate ❑ Possible oxygen debt
17	**Oxygen debt**	❑ The amount of extra oxygen needed to break down the lactic acid that has built up during exercise ❑ Heart rate and breathing rate remain high after exercise so that this extra oxygen can be carried to muscles
18	**Metabolism**	The sum of all the reactions in a cell or the body
19	**Making large molecules**	❑ Glucose → Starch / Glycogen / Cellulose ❑ Glycerol + 3 Fatty Acids → Lipids ❑ Glucose + Nitrates → Amino Acids → Proteins
20	**Breaking down large molecules**	❑ Glucose is broken down in respiration ❑ Excess proteins are broken down to make urea, which is excreted

Investigating photosynthesis:



The effect of different factors on photosynthesis:





Summary of aerobic vs anerobic respiration:

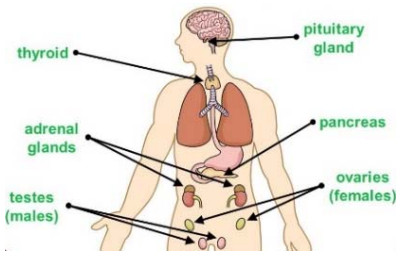
	Aerobic respiration	Anaerobic respiration
Is oxygen needed?	yes	no
What products are made?	CO_2 and water	lactic acid (muscles) / CO_2 and ethanol (plants & yeast)
How much energy is transferred?	A large amount.	A small amount.

Biology Topic 5: Homeostasis (Paper 2)

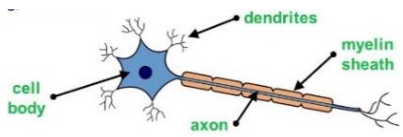
1	Homeostasis	❑ Maintaining a constant internal environment ❑ Body temperature, blood glucose and blood water content are all regulated
2	Stimulus	❑ A change in the environment
3	Effector	❑ An organ that carries out a response (a muscle or a gland)
4	Hormone	❑ A chemical messenger that travels in the bloodstream and causes a response over a wide area
5	Gland	❑ An organ that releases hormones into the bloodstream (e.g. pituitary gland / pancreas)
6	Insulin	❑ Released by the pancreas when blood glucose levels are too HIGH ❑ Causes glucose to be converted to glycogen
7	Glucagon	❑ Released by the pancreas when blood glucose levels are too LOW ❑ Causes glycogen to be converted to glucose
8	Type 1 diabetes	❑ A condition where the pancreas does not release insulin ❑ Controlled by insulin injections, dietary restrictions and exercise
9	Type 2 diabetes	❑ A condition where body cells no longer respond to insulin ❑ Linked to obesity and genetics ❑ Controlled through dietary restrictions and exercise
10	Adrenaline	❑ A hormone produced by the adrenal glands in times of fear or stress ❑ It increases the heart rate and boosts the delivery of oxygen and glucose to the brain and muscles, preparing the body for 'flight or fight'.
11	Thyroxine	❑ A hormone released from the thyroid gland to control basal metabolic rate

12	FSH	❑ A hormone released by the pituitary gland to control the menstrual cycle ❑ Causes eggs to mature in the ovary ❑ Stimulates the ovary to produce oestrogen
13	Oestrogen	❑ A hormone released by the ovary to control the menstrual cycle ❑ Causes the uterus lining to thicken ❑ Stops the pituitary gland releasing FSH
14	LH	❑ A hormone released by the pituitary gland to control the menstrual cycle ❑ Causes the ovary to release an egg into the oviduct
15	Progesterone	❑ A hormone released by empty egg follicle to control the menstrual cycle ❑ Maintains the lining of the uterus ❑ Inhibits the release of FSH and LH
16	IVF	❑ In Vitro Fertilisation ❑ Women are treated with FSH and LH, then eggs are collected ❑ Eggs are fertilised in the lab using a sample of sperm ❑ Embryos are surgically implanted into the mother
17	Neurone	❑ A nerve cell; carries electrical messages ❑ Adaptations are dendrites (for connection to other nerve cells) and myelin sheath (insulates the nerve and speeds up electrical impulses)
18	Synapse	❑ A gap between two neurones ❑ Messages are carried across by chemicals called neurotransmitters
19	Sensory neurone	❑ A neurone that carries a message from a receptor to the central nervous system
20	Relay neurone	❑ Part of a reflex arc, so only involved in involuntary actions (e.g. blink reflex / knee jerk reflex) ❑ Connects a sensory neurone to a motor neurone, bypassing the brain
21	Motor neurone	❑ Connects the central nervous system to effectors

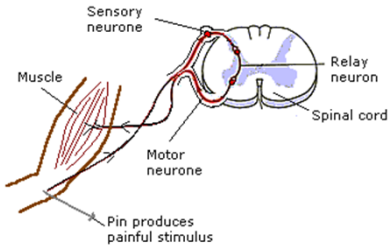
Glands



Neurone



Reflex arc

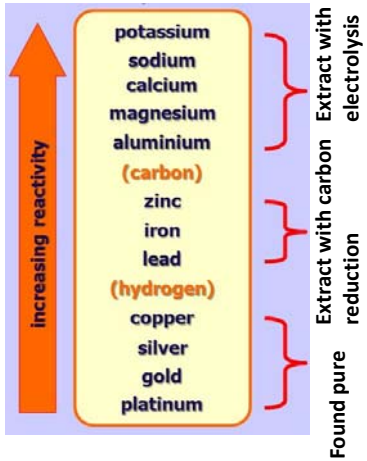


Chemistry Topic 4: Reactions (Paper 1)

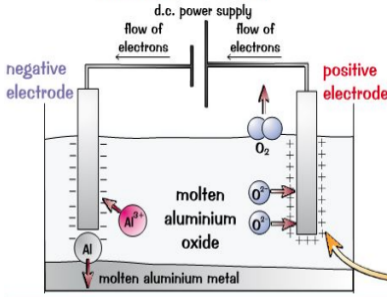
1	**Acid**	A substance which forms H+ ions in aqueous solution. pH of 0-6.
2	**Alkali**	A substance which forms OH- ions when dissolved: these are soluble bases. pH of 8-14.
3	**Neutral**	A solution with a pH of 7.
3	**Neutralisation**	A reaction between an acid and an alkali making a salt and water
4	**pH scale**	❑ Used to measure the acidity of a substance ❑ Runs from 0-14 ❑ A logarithmic scale: a decrease of 1 on the pH scale makes a substance 10 times more acidic.
5	**Base**	A substance that can neutralise an acid to make a salt and water
6	**Salt**	An ionic compound that can be formed by the neutralisation reaction of an acid and a base
7	**Acids with metal oxides**	Acid + Metal Oxide → Salt + Water
8	**Acids with metal hydroxides**	Acid + Metal Hydroxide → Salt + Water
9	**Acids with metal carbonates**	Acid + Metal Carbonate → Salt + Water + Carbon dioxide
10	**Acids with metals**	Metal + Acid → Salt + Hydrogen
11	**Metals with water**	Metal + Water → Metal hydroxide+ Hydrogen
12	**Naming salts**	❑ First part is the metal name, second part comes from the name of the acid used, e.g. potassium sulfate ❑ Sulfuric acid makes sulfates ❑ Hydrochloric acid makes chlorides ❑ Nitric acid makes nitrates

13	**Making a dry sample of an insoluble salt**	❑ Warm acid with a Bunsen burner ❑ React with an insoluble base excess base can be seen at the bottom of the beaker ❑ Filter to remove excess base ❑ Warm the solution using a Bunsen burner to leave dry salt crystals
14	**Reactivity series**	A list of metals in order of their reactivity
15	**Oxidation**	❑ Gain of oxygen ❑ Loss of electrons
16	**Reduction**	❑ Loss of oxygen ❑ Gain of electrons
17	**Reduction with carbon**	Used to extract metals less reactive than carbon from their ores
18	**Electrolysis**	Splitting up an ionic compound using electricity Used to extract metals more reactive than carbon from their ores
19	**Ionic compounds**	Conduct electricity when molten or aqueous because the ions can move and carry a current
20	**Electrolysis of pure molten ionic compound**	❑ Positive metal ions attracted to the negative electrode, so metal is formed ❑ Negative non-metal ions attracted to the positive electrode
21	**Cryolite**	Added to molten aluminium oxide to reduce its melting point for electrolysis
22	**Aqueous solution**	When an ionic compound is dissolved in water
23	**Electrolysis of aqueous solutions – negative electrode**	❑ If metal is more reactive than hydrogen (e.g. sodium), hydrogen gas will form ❑ If metal is less reactive than hydrogen (e.g. copper), then the metal will form.
24	**Electrolysis of aqueous solutions – positive electrode**	❑ If solution contains halide ions (Cl-, Br- or I-), then the halogen gas form. ❑ If solution does not contain a halide, then oxygen gas will form.

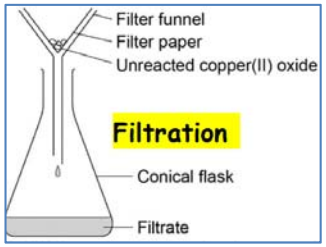
Reactivity series:

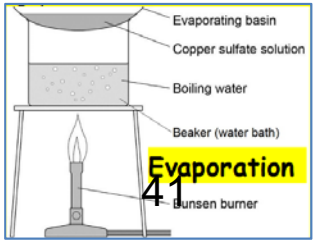


Electrolysis of molten aluminium oxide:



Preparing a dry salt sample:





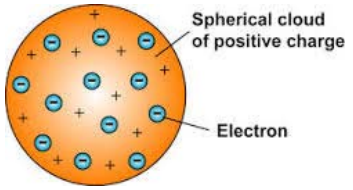
Physics Topic 4: Atomic Structure & Radioactivity (Paper 1)

1	**Atom**	The smallest possible particle of an element. First defined by Dalton.
2	**Plum pudding model**	Showed atoms as spheres of positive charge, with electrons scattered throughout them. Developed by Thomson.
3	**Rutherford's model of the atom**	❑ A positively charged nucleus ❑ A large area of empty space ❑ Negatively charged electrons orbit the nucleus
4	**Rutherford's experiment**	❑ Fired alpha particles (which have a + charge) at a piece of very thin gold foil ❑ Most of the alpha particles passed through, proving most of an atom was empty space. ❑ Some were deflected, suggesting they had hit a nucleus with a + charge.
5	**Bohr's model of the atom**	❑ Electrons orbit in shells ❑ The positive charge in the nucleus can be divided into individual protons
6	**Chadwick**	Discovered that the nucleus also contains neutrons
7	**Decay**	When a radioactive substance emits radiation at random. You can't predict or influence when it will happen.
8	**Activity**	Number of unstable atoms that decay per second (measured in Becquerels).
9	**Half-life**	Average time it takes for half of the radioactive atoms in a sample to decay.
10	**Isotope**	2 isotopes of the same element are atoms with the same number of protons but different numbers of neutrons.
11	**Ionising radiation**	Radiation that can remove electrons from atoms, creating positive ions.
12	**Ion**	An atom that has lost or gained electrons to gain a charge.

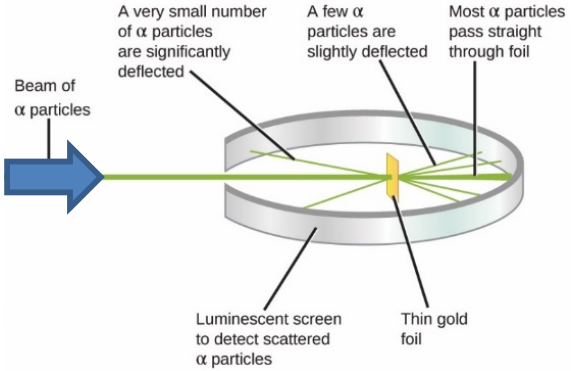
	Type of radiation	What is it made of?	Charge	Penetrating ability	Ionising ability
13	Alpha	2 neutrons & 2 protons	+2	Low	Strong
14	Beta	Fast moving electron	-1	Moderate	Moderate
15	Gamma	Short wavelength EM wave	None	High	weak

16	**Alpha decay equation**	❑ Atomic mass of atom decreases by 4, atomic number decreases by 2 ❑ A different element is formed $^{222}_{86}Rn \longrightarrow ^{218}_{84}Po + ^{4}_{2}He$
17	**Beta decay equation**	❑ During beta decay, a neutron turns into a proton ❑ The atomic number increases by 1 ❑ A different element is formed $^{234}_{90}Th \longrightarrow ^{234}_{91}Pa + ^{0}_{-1}\beta$
18	**Irradiated**	When an object is exposed to ionising radiation but does not become radioactive.
19	**Contaminated**	When unwanted radioactive atoms get onto an object. They release radiation and may cause harm.
20	**Dangers of radiation**	❑ Radiation can ionise atoms in cells, leading to cancer ❑ Outside the body, beta and gamma are the most dangerous ❑ Inside the body, alpha is the most dangerous

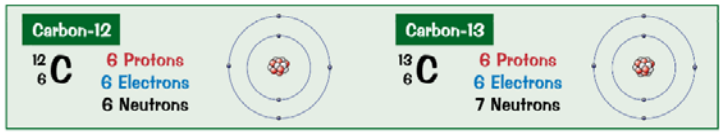
Plum pudding model:



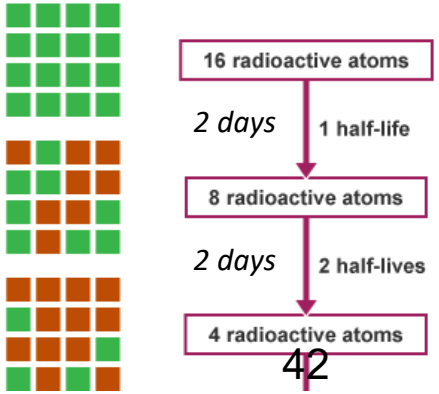
Rutherford's scattering experiment:



Isotopes:



Half life:



1) ¿Qué opines de tus asignaturas?	*What do you think about your subjects?*
¿Te gusta?	Do you like?
arte dramático	Drama
química / biología / física	Chemistry/Biology/Physics
Asignatura	Subject
Los idiomas	Languages
Las empresariales	Business
2) Opiniones	***Opinions***
Me chifla / me encanta	I love
Me interesa	I'm interested in
Me apasiona	I'm passionate about
Disfruto	I enjoy
No aguanto / no soporto	I can't stand
3) Rázones	***Reasons***
Útil / inútil	Useful / useless
Explica bien las cosas	He/she explains things well
Enseña bien	He/she teaches well
Soy fuerte / flojo en esta asignatura	I'm strong / weak in this subject
Saco buenas notas	I get good grades
Se me da(n) bien	I'm good at
Soy dotado para	I'm gifted at
4) ¿Cómo es tu instituto?	***What's your secondary school like?***
Mi escuela primaria **era**	My primary school **was**
En mi escuela primaria **había**	In my primary school **there was**
amplio	Spacious
nuevo / antiguo	New / old
un patio	A playground
un comedor	A canteen
una biblioteca	A library
un salón de actos	A hall
una pizarra interactive	An interactive whiteboard
5) ¿Qué hiciste en el colegio ayer?	***What did you do at school yesterday?***
llegar	to arrive
empezar	to start
durar	to last
aprender	to learn
terminar	to finish
volver	to return

6) ¿Cómo son las reglas?	*What are the rules like?*
(no) Hay que + infinitive	**It is necessary**
(no) Se debe + infinitive	**You must**
(no) Tenemos que + infinitive	**We have to**
Llevar uniforme	To wear uniform
Correr en los pasillos	To run in the corridors
Ser agresivo o grosero	To be aggressive or rude
Tener muchos deberes	To have a lot of homework
Comer chicle	To chew chewing gum
El acoso escolar	School bullying
Las reglas / las normas	Rules
Los castigos	Punishments
7) El uniforme escolar	**School uniform**
Llevar	To wear
un jersey	A jumper
un chaleco	A blazer
una camisa	A shirt
una corbata	A tie
unos zapatos	Shoes
unos pantalones	Trousers
8) Lo bueno/malo del colegio	***The good/bad thing about school***
Hay un ambiente amistoso	There is a friendly atmosphere
Hay apoyo de los profesores	There is support from teachers
Hay el estrés de los exámenes	There is stress from exams
Hay la presión del grupo	There is peer pressure
Hay el miedo de suspender	There is the fear of failure
Tenemos muchos deberes	We have a lot of homework
9) Expresiones del futuro	***Future tense expressions***
Tengo la intención de + inf	I have the intention to + inf
Me apetece + inf	I feel like
Espero + inf	I hope
Quiero + inf	I want
Mi sueño sería	My dream would be
Me gustaría	I would like

10) ¿Qué deportes hace?	*What sports do you do?*
Ahora juego al	**Now I play**
Antes jugaba al	**Before I used to play**
Ahora hago	**Now I do**
Antes hacía	**Before I used to do**
Alpinismo	Mountain climbing
El remo	Rowing
El patinaje	Skating
La natación	Swimming
La equitación	Horse riding
La vela	Sailing
Correr	To run
11) ¿Qué sueles hacer?	***What do you usually do?***
Suelo + infinitive	I usually
Andar / pasear	To walk
Gastar dinero	To spend money
Descansar	To rest
Tocar	To play an instrument
Leer revistas / periódicos	To read magazines / newspapers
Cocinar	To cook
Cantar	To sing
Salir con amigos	To go out with friends
12) Rázones	***Reasons***
Me ayuda a relajarme	It helps me to relax
Me ayuda a olvidarme de todo	It helps me forget everything
Me hace reír	It makes me laugh
Me encanta estar al aire libre	I love to be in the open air
Me permite desconectar	It helps me disconnect
Me permite relajarme	It helps me to relax
13) Tiempos verbales	***Time phrases***
A menudo	Often
De vez en cuando	From time to time
Cada semana	Every week
El fin de semana	At the weekend
Dos veces a la semana	Twice a week
14) Describiendo una foto	***Describing a photo***
Se puede ver	You can see
Parece que	It seems that
Una mujer / un hombre	A woman / a man
Al lado de	Next to
Están sonriendo	They are smiling
Están jugando	They are playing

1) Opiniones	*Opinions*
Me chifla	I love
Me encanta	I love
Me mola	I like
Me gusta mucho	I really like
No me gusta nada	I don't like at all
Odio	I hate
Prefiero	I prefer
Disfruto	I enjoy
Espero	I hope
Quiero	I want
Creo que	I believe that
Pienso que	I think that
2) Reacciones	***Reactions***
Me da miedo	It scares me
Me preocupa	It worries me
Me molesta	It annoys me
Me fastidia	It frustrates me
No aguanto	I can't stand
Estoy de acuerdo	I agree
3) Opiniones en el futuro	***Opinions for the future***
Quiero	I want
Espero	I hope
Tengo ganas de	I feel like
Me gustaría	I would like
Tengo la intención de	I have the intention to
Me apetece	I fancy

4) Conectores	*Connectives*
Además	Moreover
Tambien	Also
Pero	But
Aunque	Although
Por un lado… por otro lado	On the one hand… on the other hand
En cambio	On the other hand
Sin embargo	However
No obstante	However
Si	If
Sin	Without
Especialmente	Especially
Sobre todo	Above all / especially
Así que	Therefore
Por lo tanto	Therefore
Por eso	Because of this
Entonces	So / therefore
5) Expresiones de tiempo	***Time phrases***
Siempre	Always
A veces	Sometimes
De vez en cuando	From time to time
Cada semana	Every week
Cada mes	Every month
Todos los días	Every day
Nunca	Never
Una vez a la semana	Once a week
Hoy	Today

6) Verbos comunes	*Common verbs*
Hacer	To do
Hago	I do
Hacen	They do
Haces	You do
Tener	To have
Tengo	I have
Tiene	He /she / it has
Tienen	They have
Ser	To be
Soy	I am
Es	He/she / it is
Son	They are
Estar	To be
Estoy	I am
Está	He / she / it is
Están	They are
Ir	To go
Voy	I go / I'm going
Vas	You go
Van	They go
7) Verbos en el pasado	***Verbs in the past***
Fui	I went
Fue	He / she / it was
Era	He / she / it was
Había	There was / there were
Tenía	He / she / it had
Vi	I saw

8) Adverbios de lugar	*Adverbs of place*
Dentro	Inside
Fuera	Outside
Aquí	Here
Allí	There
Lejos de	Far from
Cerca de	Close to
En el norte / sur	In the north
En el este / oeste	In the east / west
Delante de	In front of
Detrás de	Behind
9) Los números	***Numbers***
once	Eleven
doce	Twelve
catorce	Fourteen
seis	Six
diez	Ten
veinte	Twenty
siete	seven
veintiocho	Twenty eight
10) Cuantificadores	***Quantifiers***
muy	Very
poco	Not very
un poco	A little
demasiado	Too / too much
bastante	Quite
realmente	Really

BTEC Sport – Unit 1 – Fitness for Sport and Exercise - Knowledge Organiser

Components of Fitness

Health-related Fitness

1	Muscular Endurance	The ability to use voluntary muscles repeatedly, without getting tired
2	Muscular Strength	The amount of force a muscle can generate when it contracts to overcome resistance.
3	Body Composition	The ratio of fat to fat free mass (vital organs, muscle, bone) in the body
4	Flexibility	A range of movement possible at a joint
5	Cardiovascular Fitness	The ability to exercise the body for long periods of time, without getting tired
6	Speed	How quickly a movement can be performed or a distance can be covered

Skill-related Fitness

7	Balance	The ability to maintain centre of mass over a base of support
8	Coordination	The ability to use two or more body parts at the same time
9	Power	Strength X Speed
10	Agility	A measure of how quickly you can change the position of your body, while keeping your body under control.
11	Reaction Time	The time it takes to respond to a stimulus

Exercise Intensity

1	Maximum Heart Rate	220 – Age = MHR
2	Aerobic Training zone	60 – 85% of your maximum heart rate (e.g. MHR x 0.6 = 60%)
3	Anaerobic Training zone	85 – 95% of your maximum heart rate (e.g. MHR x 0.85 = 85%)
4	BORG's Scale	RPE x 10 = HR
5	RPE	Rating of Perceived Exertion

Training Sessions

1	Warm up	Pulse Raiser, Stretching, Skill-related activity
2	Cool Down	Pulse lowering activity, Static Stretching

Principles of Training

1	F.I.T.T	• Frequency – how often you train • Intensity – how hard you train • Time – how long you train for • Type – what training method you use
2	Progressive Overload	Making training steadily harder, to gradually improves fitness
3	Individual Needs	Matching the training to the requirements of the individual person
4	Specificity	Matching the training to the particular requirements of an activity
5	Adaptation	Body adapts (changes) in response to training
6	Reversibility	Any improvements or changes that take place will be reversed when you stop training
7	Variation	Training must be varied to avoid boredom

Methods of Training

Flexibility training

1	Static stretching	Active stretching – stretching on your own Passive stretching – stretching with someone/thing else
2	Ballistic stretching	- Fast, jerky movements through the complete range of motion e.g. bouncing or bobbing
3	PNF stretching	- Used to develop mobility, strength and flexibility - Performed with a partner or an object

Strength, Muscular Endurance and Power training

1	Circuit training	- Different stations/ exercises used, - Use different muscle groups to avoid fatigue	
2	Free weights	- Use of barbells or dumb-bells to perform dynamic exercises - Alternate between upper and lower body /push and pull exercises	
		Training for strength	Low reps and high loads
		Training for endurance	High reps and low loads
		Training for strength endurance	50-60% of 1 RM and 20 reps
		Training for elastic strength	75% of 1RM and 12 reps
		Training for maximum strength	90% of 1RM and 6 reps
3	Plyometrics	Develops explosive power and strength e.g. lunging, jumping, incline press-up	

BTEC Sport – Unit 1 – Fitness for Sport and Exercise - Knowledge Organiser

Methods of Training		
Aerobic Training		
1	Continuous training	Training at a steady pace for a minimum of 30 minutes
2	Fartlek training	Running at different speeds or over different terrains
3	Interval training	Individual performs a work period followed by a rest or recovery period
4	Circuit training	- Different stations/ exercises used, - Use different muscle groups to avoid fatigue What can be varied Number of stations; time spent at each station; number of circuits; rest period between exercises; number of sessions per week

Methods of Training		
Speed Training		
1	Hollow sprints	A series of sprints separated by a 'hollow' period of jogging or walking
2	Acceleration sprints	Pace gradually increased from a standing/ rolling start to jogging, then striding and then to a maximum sprint.
3	Interval training	Individual performs a work period followed by a rest or recovery period

Fitness Tests

C.o.F		Fitness Test	Information	Advantages	Disadvantages
1	Body Composition	Body Mass Index (BMI)	BMI = Weight (kg) ÷ (Height x Height (m)) Measured in kg/m²	- Easy to carry out - Simple calculations used	- Results can be misleading as muscle weighs more than fat
		Bioelectrical Impedance Analysis (BIA)	Electricity passed through the body from the wrist to the ankle.	- Quick and gives instant results - Can be repeated over time with no bad effects	- Needs expensive equipment
		Skinfold Test	Equipment - Callipers	- Provides accurate percentages of body fat	- Needs specialist equipment - Problem with people revealing bare skin
2	Aerobic Endurance	Multi-Stage Fitness Test	Measured in ml/kg/min	- Can test a large group at once - Tests a performers maximum effort	- Scores can be subjective - If outside, environment may affect the result
		Forestry Step Test	Equipment – Metronome	- Can test on your own - Can be performed inside or outside	- People may struggle to keep with the stepping pace on the metronome
3	Speed	35m Sprint Test	Sprint in a straight line over 35m	- Little equipment so cheap to run	- Human error when timing can affect results
4	Strength	Grip Dynamometre	Measured in KgW	- Simple and easy test - Can be conducted anywhere	- Must be adjusted for correct hand size - Specialist equipment required
5	Flexibility	Sit and Reach test	Measured in cm	- Quick and easy to perform	- Only measures lower back and hamstring
6	Muscular Endurance	Sit up / Press Up Tests	Measured in repetitions	- Quick and easy, with little equipment - Can test a large group at once	- Different techniques can affect comparison of results
7	Agility	Illinois Agility Test	Measured in seconds	- Cheap and easy to conduct	- Human error with timing may affect the result - Weather/ surface conditions can affect results
8	Power	Vertical Jump Test	Measured in kgm/s	- Quick and easy to conduct	- Technique may affect results as need to jump and mark the wall

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