Contents

My Knowledge Organiser

What is a Knowledge Organiser?

A Knowledge Organiser is a place to keep some key information for the topics we are learning about. This may include an important formula, vocabulary, dates or explanations. It is not a complete list of everything we are studying but it *is* a place where we can find the basic information. It is likely that when you first see the Knowledge Organiser you will not understand much of what is included. Gradually, as you work on the content in lessons and at home, it will become more familiar and, over time, you should find that, not only do you understand everything on it, but that you can *remember* everything that is on it and, even better, know how this information relates to what you are studying.

How do we use our Knowledge Organisers?

We can use our Knowledge Organisers in many ways. The main aim is that we are able to memorise, understand and eventually *apply* all of the information in the Knowledge Organisers. We will do this by:

- using them to refer to in class to support our learning.
- working on them in lessons and coming up with ways to memorise the information in them.
- working on them at home with parents or carers to reinforce our learning and so that others may be involved in what we are learning too.
- using them as learning homeworks that we will have quizzes on in class.
- using them as homework or to help with homework.

What do I need to know?

This knowledge organiser has been given to you. It is an essential part of school equipment and you must bring it to school everyday. You must have your knowledge organiser with you for each lesson. Fill in your timetable in pencil and use it to plan your equipment each day. Test yourself on the knowledge in this booklet regularly; in class, at home, on the bus, or with help from friends and family. There are some activities for you to do in this knowledge organiser. Don't write in the booklet – use paper so that you can test yourself regularly and see the progress you are making. Sometimes you will use these booklets in cover lessons and for homework.

If you lose your Knowledge Organiser make every effort to find it. They are valuable, look after them. If you can't find it you will be charged for a new one.

- Fill in your timetable very carefully in pencil. Include the teacher's name, the subject and the classroom. Try to learn your timetable off by heart.

Week A								
	Form 8.25-8.45	Lesson 1 8.45-9.45	Lesson 2 9.45-10.45		Lesson 3 11.00-12.00		Lesson 4 12.45-1.45	Lesson 5 1.45-2.45
Monday	Form time or Assembly			Break		Lunch time		
Tuesday								
Wednesday								
Thursday								
Friday								

- Fill in your timetable very carefully in pencil. Include the teacher's name, the subject and the classroom. Try to learn your timetable off by heart.

Week B								
	Form 8.25-8.45	Lesson 1 8.45-9.45	Lesson 2 9.45-10.45		Lesson 3 11.00-12.00		Lesson 4 12.45-1.45	Lesson 5 1.45-2.45
Monday	Form time or Assembly			Break		Lunch time		
Tuesday								
Wednesday								
Thursday								
Friday								

Punctuality and Attendance

It is vital that pupils attend school every day and on time. There is a proven link between attendance, attainment and progress. At St Joseph's we expect all pupils to aspire to 100% attendance and for pupils to be on the school site *before* 8.25am.

If a pupil is going to be absent we ask that a phone call is made to school on the first morning of absence before 8.25am. If contact is not made the school will contact parents / carers. Please send a letter in explaining your child's absence on the first day they return to school.

School attendance is monitored daily and a letter will be sent to parents immediately attendance becomes a cause for concern. Further action may be taken and this may include; further letters home, a school attendance meeting, a fixed penalty notice (fine).

It is important to be on time for school and lessons. Lateness can affect everybody's progress. For this reason, pupils arriving persistently late will be given a detention. Where lateness is not improving school will apply further sanctions and seek parental support.

Holidays or any other events during term-time are strongly discouraged as this can have a detrimental effect on your child's progress, as well as that of others in their class. In almost all cases schools will not authorise holidays take in in term time and this may result in sanctions from Education Welfare Services. We appreciate your ongoing support in this matter.

My attendance term 1	_____ %
My attendance term 2	_____%
My attendance term 3	_____ %

Catholic Life and Mission at St Joseph's

With Christ at the centre, our school seeks to exemplify faith in action, working for justice and compassion, manifest in acts of charity and kindness. We work for those in need, and instil an ethos of care, kindness, and respect. As an inclusive family, we seek to help and care for the most vulnerable and marginalised. Our community is built upon values, which are inspired by the Gospel and the Church. Our values are visible in the environment, relationships, interactions, and our day-to-day life.

#Walk on Water
Will you get out of the boat of your comfort zone, look to Jesus, and achieve beyond your wildest imagination?

Dear young people, make the most of these years of your youth. Don't observe life from a balcony. Don't confuse happiness with an armchair, or live your life behind a screen….Don't be parked cars, but dream freely and make good decisions. Take risks, even if it means making mistakes….. Live! Give yourselves over to the best of life! Open the door of the cage, go out and fly!

Pope Francis, Christus Vivit 143

Christ has no body but yours,
No hands, no feet on earth but yours,
Yours are the eyes with which he looks
Compassion on this world,
Yours are the feet with which he walks to do good,
Yours are the hands, with which he blesses all the world.
Yours are the hands, yours are the feet,
Yours are the eyes, you are his body.
Christ has no body now but yours,
No hands, no feet on earth but yours,
Yours are the eyes with which he looks compassion on this world.
Christ has no body now on earth but yours.
— Teresa of Ávila

All adults at St Joseph's are here to keep you safe

If you have any worries or concerns
please speak to any adult

You WILL be listened to!

They may need to discuss these worries with Mr Singleton, Mrs Anderton, Mr Sylvester or Miss Tebay in order that your issue is dealt with. The websites below may also be helpful out of school time:

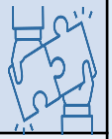
www.stjosephsbolton.org.uk/wellbeing-support

St Joseph's Curriculum Structure

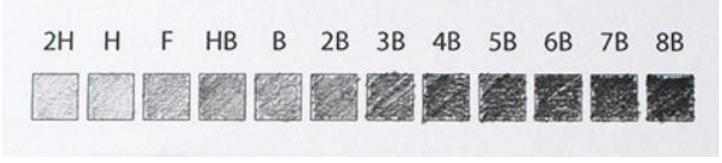
Confidence	Curiosity	Commitment	Compassion	Consideration	Collaboration
- Aspirational - Self-esteem - Individuality - Communication - Self-regulation	- Enquiry in lessons - Engagement - Love of learning	- Resilience - Work hard - Homework - Motivated - Attendance - Determination	- Empathy - Understanding - Respectful - Behaviour towards others - Charity work - Kindness	- Punctuality - Organisation - Engagement - Celebrating differences - Using manners	- Community - Friendship - Extra-curricular and enrichment - Participation - Leadership - Uniform

Personal Development Curriculum

Link4Life

Confidence	Curiosity	Commitment	Compassion	Consideration	Collaboration
Genesis 1:27 "God created man in his own image" 	*Philippians 14:9 "Whatever you have learned or heard or seen from me, put it into practice"* 	*Proverbs 16:3 "Commit to the LORD whatever you do"* 	*John 13:34 "Love one another: just as I have loved you"* 	*Galatians 5:13 "Serve one another humbly in love"* 	*Corinthians 12:12 "We are one body in Christ, together"* 

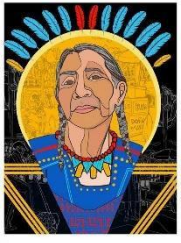
The Formal Element	Definition
Line	The path left by a moving point, e.g. a pencil or a brush dipped in paint, that can take many forms. e.g. horizontal, diagonal or curved.
Tone	The lightness or darkness of something. This could be shade or how dark or light a colour appears
Texture	The surface quality of something, the way something feels or looks like it feels. There are two types: Actual and Visual.
Shape	An area enclosed by a line. It could be just an outline, or it could be shaded in.
Pattern	A design that is created by repeated lines/ shapes/ tones or colours. It can be manmade, like a design on a fabric or natural, such as markings on animal fur.
Colour	There are 2 types including Primary and Secondary. By mixing any two primary together we get a secondary.



ART

Colour Theory
Primary Colours are the 3 main colours. They cannot be made, but are used to make all other colours.
Secondary Colours are made mixing 2 primary colours.
Tertiary Colours are made by mixing a primary and secondary colour together.
Complimentary Colours are opposite on the colour wheel.
Harmonious Colours are next to each other on the wheel.
Tint – When you add white to a colour to make it lighter.

Shade- When you add black to a colour to make it darker.



Mark Powell
Stephanie Le Doux
Abby Diamond
Sam Kirk

Ian Murphy Ruth Allen

Use these questions in your SKETCHBOOK

ART

Answer these questions in FULL Sentences to help write your
annotation:

WHAT does the artist create work of?
WHERE do they get their sources from?
WHAT media do they use to create their work?
HOW do they create their work? **WHAT** is the colour pallete? **WHAT** style is the artists' work?
WHAT is the main focus of the image?
WHAT is the eye drawn to. Think about composition, what's in the
background, what is in the foreground.
YOUR opinion. Do you like / dislike their work? Why?
YOUR ARTIST COPY
WHAT did you use to create your copy? Tools / equipment **WHAT** source did you use? Is it one of your own photos? **HOW** did you create your artist copy? STEP BY STEP
Is it similar to the artists' work? How?
YOUR opinion. Was it successful / how could you improve? **Development**- Use your own photo to create a development showing inspiration from the artist.

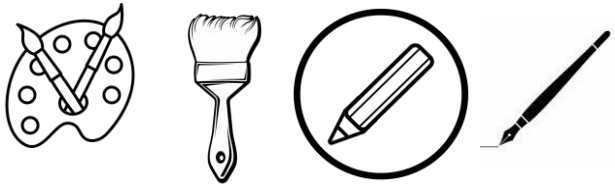
Example

•Here I have created an artist copy of Ian Murphy's work. I **prepared** my background with different **neutral coloured papers**, I used beige and brown watercolour to **age** my background, preparing my paper will add **texture** to my work. I then drew my building over the top of my background, and used **mixed media** such as chalk, charcoal and fineliner to add tone and depth.

Now add your opinion...

- I like / dislike my artist copy because.....
- Is your **background** good? Is it too messy? Could you have added more?
- Is your drawing **accurate**?
- Have you added **tone**?
- Have you used **mixed** media?

ART - Observational Drawings



To look at an object /photograph and draw exactly what you see.

Checklist:

-You MUST use one of your own photographs to draw from.
-Experiment with at least 3 mediums.
-Draw exactly how you see the photo. Is it on an angle, where are the tints, tones and shades?

Media you could use

- Pen (fineliner / biro)
- Pencil
- Acrylic paint
- Watercolour
- Chalk / Charcoal
- Collage
- Digital / Graphic / Photoshop

ART

Developments/Ideas

- Do you have any **photos** to help your ideas?
- Which **artist or artists** have inspired you?
- Draw and try **4 developments/ideas.**
- **Explain** the ideas you have chosen and why.

Own photograph

I have chosen this photo to develop my ideas.

I like the **repeat patterns** and want to explore the **shapes** further and **experiment** with different colours.

Artist Research- David Hockney, Abigail Reynolds and Rachael Elwell

Developments looking at colour, shapes, patterns and prints

1) Acrylic painting.

2) Simple shapes in Acrylic.

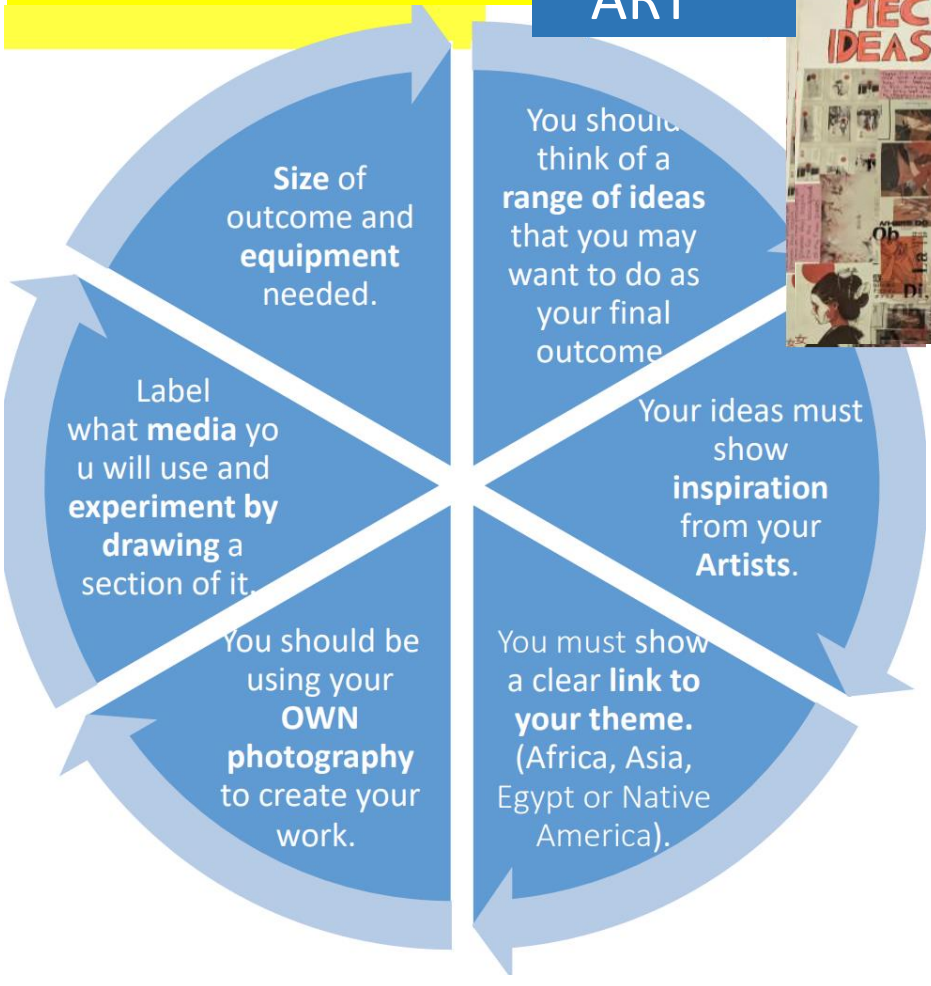
3) Polystyrene Print with Painting and Collage.

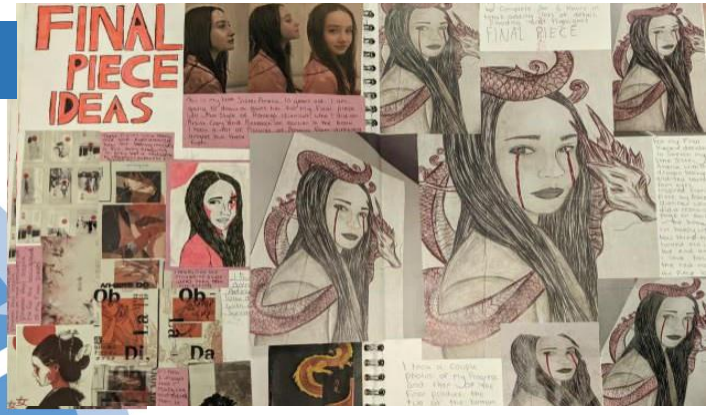
4) Polystyrene Print and Abstract painting.

I have used **shapes** inspired by Abigail Reynolds and **complimentary colours** inspired by Rachael Elwell.

Final Outcome Ideas

ART





- Aim to have **three** different ideas.
- You will include **your own photography.**
- You will be **practicing sections** using your chosen media.

Business Knowledge Organiser Year 9 A1-Sp1

1. Dynamic Nature of Business

Dynamic -"constantly changing"

This change results in **new businesses,** and the development of **new ideas**

1. TECHNOLOGY

Results in products and services that are:

- Faster
- Smaller
- Cheaper
- Easier to produce
- Safer

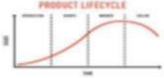
2. CHANGING CONSUMER NEEDS

- Fashions
- Economy
- Lifestyle
- Demographics
- Technology

3. OBSOLESCENCE

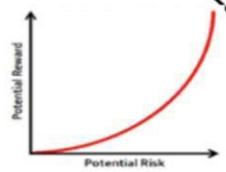
Products and services become outdated quickly. Some products are even designed only to last a short amount of time

"PLANNED OBSOLESCENCE"



2. Risk and Reward

Risk-"probability of a negative outcome happening"



RISK

- Business failure
- Financial loss
- Lack of security

REWARD

- Business success
- Profit
- Independence

RISKY BUSINESSES . . .

1.Seasonal (cash flow)
2.Highly competitive (sales)
3.Owner's knowledge is poor

Reducing risk . . .

Business plan, market research, start-up finance

3. The Role of Business Enterprise

Suppliers

Inputs
Resources such as:
Energy
Materials
Technology
People
Information
Finance

Business
Production and transformation

Outputs
Products (goods and/or services)

Customers

1.1 Enterprise and Entrepreneurship

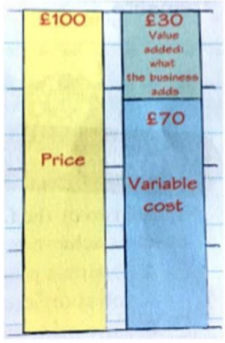
Business

4. Added Value

A successful business will be able to add value o their products and services. This can be done by lowering variable costs, or adding something that will make customers pay more

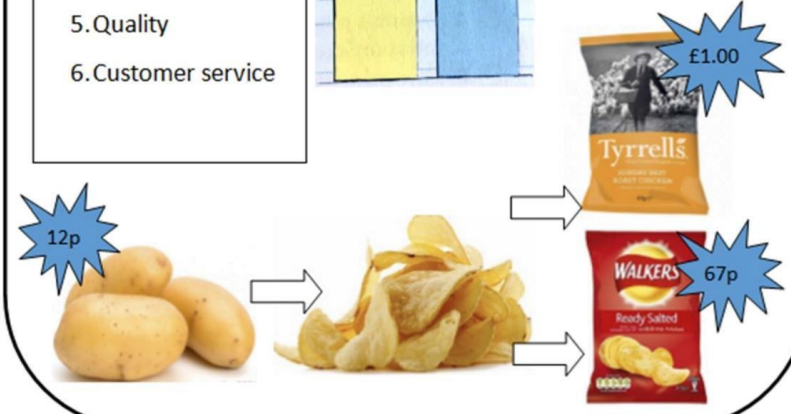
Ways to add value

1. Convenience
2. Branding
3. USP
4. Design
5. Quality
6. Customer service



Calculating Value Added:

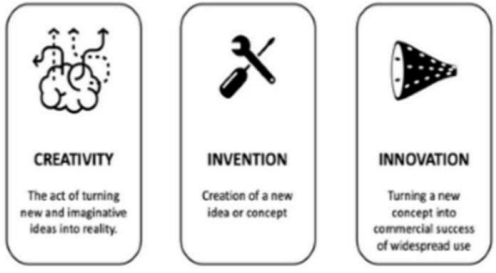
Selling price - production cost



5. The Role of Entrepreneurship

Entrepreneur -"a person who owns and runs their own business. They are risk-takers who have an initial idea and the willingness and confidence to see it through"

This change results in **new businesses,** and the development of **new ideas**



Benefits to the economy:

Creating products and services to meet needs, creating jobs, generating economic activity through consumer spending, exporting goods abroad

Business

Business

FOCUS
Risk and Reward

Exam Focus

Risk

"The possibility that an enterprise will have lower than anticipated profits, experience a loss, or fail"

RISK

1.Business failure

Can occur because your business does not make enough sales revenue (lack of interest, poor market research, not meeting needs and wants). If your business is unable to purchase materials and continue it will fail

2. Financial loss

Businesses can be very expensive to run, and sole traders are likely to invest their personal money into the business.. They could lose their savings , and if things don't go well their personal possessions.

3. Lack of security

Choosing to set up on your own, often means you give up working for someone else where you would have been paid on a regular basis. This can mean you don't know when or if you will get paid (profits) from your business. This can make people feel very anxious

Reward

"The benefit (s) that an entrepreneur or investor receives when a business is successful. They include; business success, profit, independence"

REWARDS

1.Business success

Success can lead to a real sense of pride and achievement

2. Profit

If the business is successful the owner will take the profits as his earning. More profits, more money in the bank account!

3. Independence

Many people don't like being told what to do. Being an entrepreneur means to work for yourself and make all of your own decisions.

1.2 Spotting a Business Opportunity

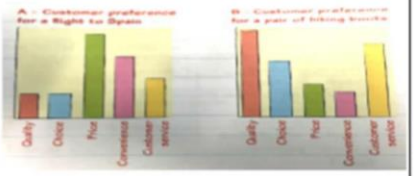
1. Customer Needs

The ability to meet customer needs is important as it will encourage repeat purchase and attract new customers.

1	Quality
2	Choice
3	Price
4	Convenience
5	Customer Service

Customers all have differing needs and personal circumstances which will influence their purchasing decisions.

When buying different products, some factors might be more or less important



2. Market Research

The purpose of market research is to help a business understand its customers, competitors and the market, in which it operates, in order to make better business decisions

Purpose . . .

- Find gaps in the market
- Identify competitors
- Understand trends
- Reduce risk and inform decisions
- Get feedback

Primary Research Methods

		Analysis:
1	Surveys	• More accurate • Up to date • Specific to needs • Effective for qualitative data • Direct customer contact
2	Focus groups	
3	Observations	
4	Experiments	
5	Questionnaires	
6	Social media	

Secondary Research Methods

		Analysis:
1	Internet sites	• More general • Less time-consuming • Effective for quantitative data
2	Local newspapers	
3	Government reports	
4	Market reports	
5	Telephone directories	
6	Sales data	

Limitations . .

- Expensive
- Time consuming (for small businesses)
- Sample size—if too small, may not be reliable

BIAS

Research can be biased if customers give the answers they think the business wants them to give. Bias easily occurs by not surveying a 'representative' sample of people

RELIABILITY

In order to make good business decisions the market research and data collected must be reliable. Coming from a representative sample, being accurate and relevant

QUANTITATIVE

Information about people's opinions, judgements and attitudes

QUALITATIVE

Data that can be expressed as numbers and statistically analysed.

3. Market Segmentation

Market segment—"A group of buyers with similar characteristics

Methods of segmentation	
D	Demography
I	Income
G	Gender
A	Age
L	Location
L	Lifestyle

Benefits :

- Meet specific needs
- Differentiate products
- Focus on specific groups of customers
- Target marketing activity
- Develop a unique brand image
- Build relationships

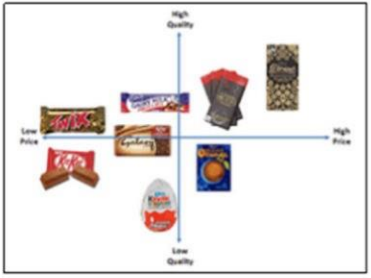
Drawbacks :

- Costly to cater for a range of customers
- Focusing on one type of customer, can mean your lose others
- Characteristics change over time

4. Market Mapping

Used to find a 'gap' in the market, and a businesses position in the market.

Compares two variables; usually price and quality



Helps identify opportunities

Help identify close rivals/competition

Helps support market segmentation

Based on opinions rather than data

Compares on only two variables

1.2 Spotting a Business Opportunity

5. Competition

Head-to-head competition, is to have similar products and compete on PRICE

A different way to compete is through DIFFERENTIATION

Differentiation:

1. Wider product range (store/branches)
2. Better customer service
3. Stronger brand image (advertising)
4. More convenient location
5. Higher quality
6. Better design

Competitive Markets

Where there are a large number of businesses relative to the number of potential customers. Also true for commodity goods

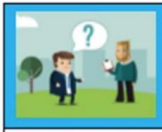
Drawbacks :

- Low prices to attract customers
- Lower profit margins

FOCUS
Market Research Methods

Exam Focus

Primary Research Methods (field research)



Surveys - this is about gathering people's opinions and information about your business/ service. To survey—is to gather information about a market or market segment

	**Focus groups** - getting people together to review a product idea. Focus groups allow people to give their detailed feedback and ask questions. Usually small groups of 5-12, it also gives the potential customer a chance to see the product, or try it
	**Observations** - this is where you watch the customer and see what they do. For example, you could set up a supermarket display and then see how many people pick up a particular product. You could watch a certain aisle and see what product attract customers more and use this in your own marketing
	**Experiments** - including product trials you would ask potential customers to use (or eat) your product to get their reviews. Apple did this with the iPhone X when they sent phones to journalists and social media bloggers to try to product two weeks before launch
	**Questionnaires** - A quick way to gather a lot of information from the public. Simple forms can include open and closed questions
	**Social media** - polls can be used on social media, as can peoples comments in relation to posts. This can be an effective method of getting a lot of feedback very quickly, due to sharing and communities on social media websites like Facebook and YouTube

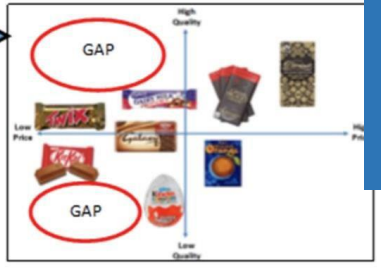
Secondary Research Methods (desk research)

	**Internet sites** - used to gain information about competitors as well as lots of other information. Quick to access and virtually free. Lots of information can be found
	**Local newspapers** - newspapers can include names and adverts of other businesses and potential competitors.
	**Government reports** - written about specific areas of government concerns like; health and obesity in the UK, transport reports, crime statistics
	**Market reports** - written about purchasing habits and changes with a specific market; for example the confectionery, health and fitness or car market. Good for identifying trends
	**Telephone directories** - excellent for identifying competitors and getting contact details. You could then use this information to find out about services and prices (competitor analysis)
	**Sales data** - having sales data and sale reports can allow you to find trends in purchases, which can be liked to consumer wants and needs. If something is reducing in sales, perhaps it is becoming obsolete

Market Map

Used to identify competitors in your market, and any gaps that you could fill with your business idea.

Find a gap, come up with a USP and gain customers!!



Business

1.3 Putting a business idea into practice

1. Aims and Objectives

An **aim** is what a business wants to achieve; whereas an **objective** is a smaller step to help achieve the aim. Objectives should be SMART (specific, measurable, achievable, realistic and time-bound)

	Financial Aims		Non-financial aims
1	Survival	1	Social objectives
2	Sales targets	2	Personal satisfaction
3	Market share	3	Challenge
4	Profit	4	Independence and control

Different aims and objectives

Businesses are likely to have different aims and objectives based on; the industry the business operatives in, the owners beliefs and priorities, and the length of time the business has been running.

2. Revenues, costs and profits

Revenue - Total Costs = Profits

Revenue

Selling price x quantity sold **(SP x Q = Revenue)**

Businesses can have multiple **income streams**—regular customers, impulse purchases, families to try and increase profits, but this is only effective if costs can be kept low

Total costs

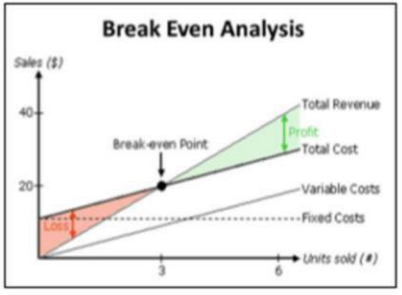
Fixed costs + variable costs **(FC + VC = TC)**

Costs include all the things that businesses have to pay for in the running of the business and the creation of the product.

- Fixed costs—stay the same regardless of output
- Variable costs—increase with output

Gross profit = Revenue *minus* Cost of Goods Sold (COGS)

Net profit = Gross profit *minus* operating expenses



Break-even point occurs when:

Total revenue = total costs

Contribution method

$$BE = \frac{\text{fixed costs}}{\text{Contribution}}$$

(Selling price—variable costs)

Margin of safety

Actual Sales (budgeted) - Break even point in units

Business

3. Cash and cash flow

Total inflows - total outflows = net cash flow

Importance of cash

A business that does not have enough cash will be unable to pay bills, and therefore fail, even if it is making a profit. Managing cash flow can be difficult because not all customers pay for good when they purchase them (credit sales), as they will be invoiced to pay 30, 60 or 90 days later.

Effective cash flow management is necessary to avoid business failure through **INSOLVENCY**; and to:

- Maintain good relationships with suppliers—vital to ensure you keep receiving goods when you need them
- Enable to payment of overheads—electricity and other utility bills are essential and will be cut off if a business fails to pay
- Pay employees —wages, NI must all be paid every month (ON TIME)

The difference between cash and profit

Not all cash coming in is kept by the business—it is used to pay bills and other overheads. This will be the variable costs—related directly to making the product, but also contribute to some of the fixed costs (rent, salaries)

Once all of the costs have been covered—only then does a business have profit. Profit is money the business, or business owner, gets to keep.

	Jan	Feb	Mar	Apr	May	Jun
Sales	200	150	175	250	125	350
Loan		0	0	0	500	0
Total Receipts	1200	150		250	625	350
Raw Materials	150	200	310	200	230	
Van Costs	170	170	180	180	190	190
Interest	40	40	40	40	40	40
Total Payments	360		530	420	460	340
Net Flow	840	(260)	(355)	(170)	165	10
Bank B/F	0	840	580	225		220
Bank C/F	840	580	225		220	230

4. Sources of business finance

At all times a business will need access to additional funds, and not just the cash from sales revenue. This can be used for day to day activities, purchases or growing the business.

Short-term sources

Used to help with a positive cash flow, for less than a year.

Trade credit	30, 60, 90 days. Buy now, pay later following an invoice. There will be terms and conditions that must be maintain with the supplier for this agreement
Overdraft	Banks will allow you to withdraw more than is in your account, charged with interest so best used for emergencies only.

Long-term sources

Used for large purchases, and will take over a year to payback

Loans	L	Given by banks usually for between 3-10 years. Cash is received into the bank account very quickly once arranged . Paid bank monthly with interest
Retained profit	R	If the business is profitable, they can reinvest this money the next year
Crowd funding	C	Raising money telling people about your idea on the internet. Great for start-ups, but investors will want something in return.; discounts/ freebies
Savings	S	Usually the owners capital put into the business at the start.
Venture capital	V	Given to the business by investors (Dragon's Den) they will remain an owner for a short period of time, then you have to buy them out
Share capital	S	Shares are sold, so people can be part owners in your business. Can raise large amounts, but you will lose control

1.3 Putting a business idea into practice

Business

FOCUS
Break even

Break even occurs when total costs = total revenue

The business will NOT be making any money, but they will have paid for everything that they need to (costs, bills, paying staff) After the break even point the business will begin to make a profit with each additional item sold

Exam Focus

Revenue

Comes into the business from the customer. Revenue is made with every item that is sold. Total revenue is calculated by selling price x quantity (SP x Q)

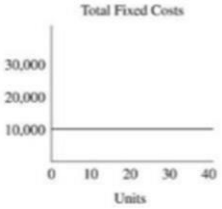
Total costs

Fixed costs + variable costs (FC + VC)

Fixed costs

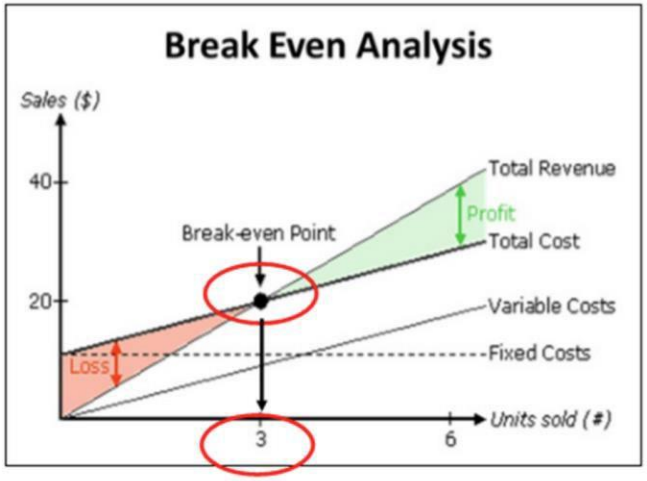
Stay the same, regardless of output

E.g.. rent, salaries, advertising



Variable costs

Change in relation to output. The more you make, the more it costs, E.g. Raw materials, ingredients. Variable cost per item x quantity will give total variable costs.



Lowering the break-even point, will mean that the business is able to make a profit selling fewer items.

The break even point can be lower through increasing revenue (advertising, increased prices, promotions) or by reducing costs (of raw materials, utilities)

Each option has different +/-'s

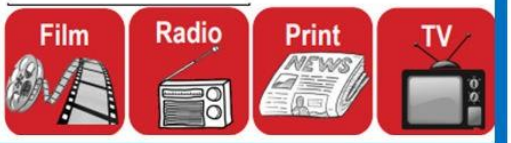
Glossary of Key Terms - explain in your own words

Key term	Meaning (in own words)	Key term	Meaning (in own words)
Added Value		Supplier	
Business		Tangible	
Competition		Biased	
Consumer		Competitive Market	
Demand		Customer Needs	
Dynamic		Demographics	
Economy		Differentiation	
Enterprise		Gap in the market	
Entrepreneur		Market	
Financial Loss		Market map	
Goods		Market research	
Independence		Market Segment	
Obsolete		Primary research	
Profit		Qualitative data	
Reward		Quantitative data	
Risk		Questionnaire	
Seasonal Business		Reliability	
Security		Repeat purchase	
Service		Secondary research	

Glossary of Key Terms - explain in your own words

Key term	Meaning (in own words)	Key term	Meaning (in own words)
Unique selling point		Market share	
Aim		Negative balance	
Break-even point		Net cash flow	
Cash flow		Objective	
Contribution		Opening balance	
Cost		Overdraft	
Closing balance		Overheads	
Credit		Personal satisfaction	
Credit Limit		Personal savings	
Credit period		Profit	
Crowd funding		Retained profit	
Expenses		Revenue	
Income stream		Share capital	
Insolvent		Short-term finance	
Fixed cost		Social objectives	
Loan		Survival	
Long-term finance		Trade credit	
Loss		Variable cost	
Margin of safety		Venture capital	

Traditional Media



New Media

Job Sectors in Media

Keyword	Definition
Sector	An area that is distinct from others, i.e., job roles in TV or digital games.
Medium / platform	Range of services available on the internet
Production phase	Pre-production, production and postproduction
Skill type	Creative, technical or practical
Seniority	Junior, mid weight, or senior

Purposes of Media

Purposes
Media products always has a purpose. This purpose will have a significant impact on all aspects of the design of the product.

Advertise or Promote
Advertising is a method of promotion that is used to sell a product or service to viewers, readers or listeners.

Educate
Used in education all the time to teach skills or provide new knowledge.

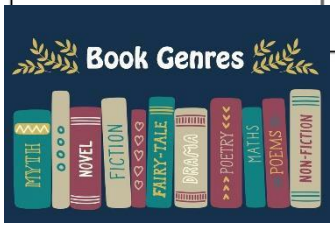
Entertain
Some sort of media that you chose to look at and enjoy. It keeps you occupied

Inform
Media that is used to give instructions or information.

Influence
Media that encourages people to follow a certain movement, point of view or to make a purchase

Creative iMedia – the media industry

Influence	Examples
Colour	Advertise – bold colour and text to ensure the message is clear Inform – for official information, formal fonts, simpler muted colour scheme
Conventions of genre	Educate – formal and simple layout and formal language Entertain – the genre of entertainment media will influence the design of a product. For example, horror might use a lot of black and red.
Tone	Entertain – tone is likely to be informal, relaxed as this information is being engaged with at the user's choice. Educate – language is likely to be more formal. Information is being presented as factually accurate and important. The age of the audience will also influence the tone.
Positioning of elements	Advertising – the product will be placed in a prominent, often central position, or towards the beginning of a video to ensure the focus is on the correct element. Inform – information will be the prominent feature of the product
Style of audio representation	Inform / Educate – likely to have the information or learning content clearly explained, with any other audio elements in the background as not to distract from the key message Entertain – often a collection of sound elements combined for the listeners entertainment and interpretation and no one element needs to stand out.
Style of visual representation	Advertise – often has a visual style that mirrors the house style of the product brand. This can include font colours and the structure of the media product. Inform – graphics often follow conventions to ensure the users recognises the form of a graphic. This can involve the use of colour, fonts and layout as well as other consistent features such as consistent audio elements.



Analyzing a target audience

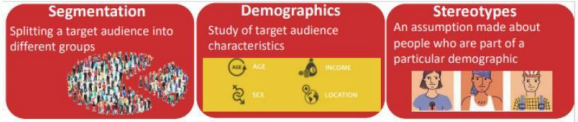


Image File Types

Format	Properties	Limitations
JPG	Most common. Can be compressed	Quality can be lost if high compression
PNG	Supports transparent background	Not as popular as JPG
GIF	Supports animation	Limited choice of colours (only 256)
TIFF	High quality, no loss of detail	Large file size
PDF	Consistency, looks the same of every device	Cannot be edited
PSD	Constructed with layers for editing	Requires specialist software
AI	Vector based, illustrations, logos and artwork	Requires specialist software

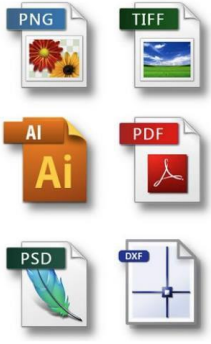
Video File Types

Format	Properties	Limitations
MP4	High quality video over lower bandwidth	Can be lower quality
MOV	Used from digital cameras	Not as widely supported as MP4
AVI	Uncompressed, high quality, can be edited	Not widely supported. Large file size
MPG	Small file size, faster loading	Lower quality video file

Audience Demographics

Age	Gender	Location	Occupation
In most client requirements there will be an age range such as 11-16 rather than a single age. **Everyone** is too wide	Traditionally this would mean men and women but should now also consider all identities such as transgender and non-binary.	Sometimes your product requirements will include detail of a location which is relevant to the product for a local attraction. If it's a web-based product in could be an international audience.	When looking at your brief you might need to consider the types of jobs that your audience may have.

Education	Income	Interests/Lifestyle
The educational level of your audience may impact on the type and style of content in your product	Depending on the purpose of your product you may need to consider the income of your audience. How much is your product? What type of product are you creating?	For example, hobbies, or pastimes, musical tastes. This includes information about a person's life, and how they live it. Examples also include a healthy lifestyle or rural life.



Audio File Types

Format	Properties	Limitations
WAV	Large file type, uncompressed, good for editing	Slow streaming, uploading and downloading
AIFF	Large file type, uncompressed, good for editing	Slow streaming, uploading and downloading
MP3	Compressed sound file. Faster for streaming	Some sound quality is lost. Usually undetectable from humans
WMA	Compressed sound file. Faster for streaming	Some sound quality is lost. Usually undetectable from humans

Creative iMedia – Pre-Production

Pre Production Document Types

Pre Production
Before

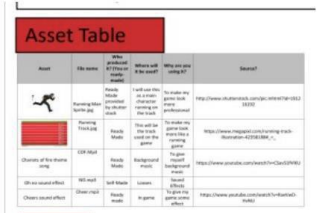
This phase begins with a commission for work. A client brief is shared.
Before the product can be created, the following will be required
Initial ideas – sketches, words and concepts
Mood boards, mind maps may be used
Assets and resources planned
Any location or product specific recces and risk assessments will be carried out.
Relevant legislation affecting choice of assets and resources will need to be considered.

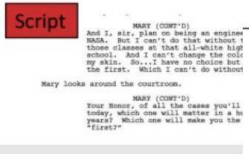
Production
During

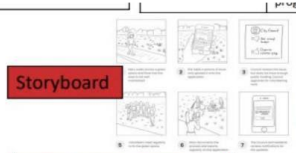
This phase involves the creation of the product. It will usually go through several versions before the client is happy.
Assets will be created, obtained or made.
Resources will be collected ready for use
Assets will be imported into editing software
Feedback may be obtained
Master version will be saved
A final copy for the client will be exported

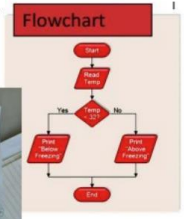
Post Production
After

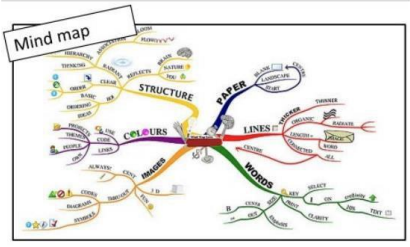
This phases sometimes overlaps with the production phase.
It involves checking if all client requirements have been met.
Is it suitable for the right target audience?
Has it been tested?
Reviewing the product is fit for purpose
Working out if any further developments or improvements are necessary

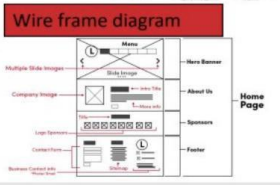


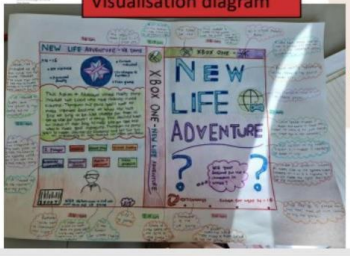












Creative iMedia – Legislation

Intellectual Property Rights

Intellectual property (IP) is a piece of work, idea or an invention. The purpose of IP protection is to make sure that others do not profit from the work of the original author.

Protecting intellectual property
There are several areas of legislation that are used to protect intellectual property.
The protections cover:
- Copyrighted material
- Intellectual property in the form of ideas
- Patents
- Trademarks

Symbol	Meaning
©	Copyright
TM	Trademark
®	Registered

Copyright
This is a legal right automatically given that allows the owner to distribute, license and profit from its use.
Assume all **published content** is copyrighted. This includes
- All content on the internet
- Photographs
- Images and graphics
- Books and magazines
- Music
- films

To use published content, you must:
- Contact the owner
- Ask for permission
- Be prepared to pay a fee

Royalty free
Means the work can be used commercially without the need to pay royalties (a fee) each time. It is likely an initial one-off fee will need to be paid.

Ideas
The concept of copyrighting ideas is an increasing concern and bigger issue with the internet. In creative media work a non-disclosure agreement is a good idea.

Patents
Not usually an issue for creative media work. It is generally applied to product inventions

Trademarks
Usually used to identify an organisation or product and are protected by the law. The general rule is, if you are referring to a company and use their logo in context with your work referring to them, this is ok, but you can't change any part of it. However, you can't use any part of another companies' logo as part of your own logo.

Creative Commons Licences
CC BY: you can use it as long as you quote the source
CC BY NC: You can use for non-commercial purposes, no profit can be made
GFDL: Share alike

Fair Dealing
Some limited use of copyrighted material is possible in certain situations. Including, research, private study, education, criticism and news reporting.

Health and Safety

Hazards and Risks in all phases of production
The hazards and risks vary depending upon the task being done and the phase of production. For example, pre-production and postproduction might include some computer work, whereas production could be an outside location or studio. It might be necessary to produce a risk assessment for one or more stages of producing a media product.

Risk Assessments
This is the first stage that identifies if there are any risks and hazards to health and safety during a project.
All possible risks should be identified and strategies to reduce the risk written down.
Whilst a risk assessment cannot guarantee an accident won't happen, it should reduce the risk of one happening.

Four steps of risk assessment

Location Recces
A recce is where someone goes to visit a specific location before product starts. The main purpose is to check access, see what is there, identify best positions and access environmental considerations.
A recce should include:
- Location – how to get there
- Access and parking
- Lighting, for example natural, artificial, direction
- Availability of power for lights or charging batteries
- Health and safety requirements for example identify need for a risk assessment
- Environmental considerations, for example background noise, people
- Any potential issues that might arise
- Confirmation that the location is suitable

Common risks and hazards found in media
Electric cables – on the floor trip hazard
Electrical power – possible electric shock
Repetitive strain injury – computer working
Working at heights – holding a camera
Moving heavy equipment

Recce example

Location	Used for	Potential issues	Actions required

Creative iMedia – Questions 1

Target Audience — How do you identify and analyze your target audience during pre-production?

_____

_____

_____

Scriptwriting— What elements should be included in a script, and why is scriptwriting critical in pre-production?

_____

_____

_____

Location Scouting— What are the essential considerations when scouting for locations?

_____

_____

_____

Crew Selection— How do you assemble a production crew, and what roles are essential in a media project?

_____

_____

_____

Risk Management— What are some potential risks in media production, and how can you plan to mitigate them?

_____

_____

_____

Mood Boards— What are mood boards, and how do they assist in pre-production?

_____

_____

_____

Creative iMedia – Questions 2

Storyboarding— How does storyboarding help in visualizing the final product, and what information should a storyboard contain?

Scheduling— What is a production schedule, and how do you create an effective one?

Equipment Planning— What types of hardware might be needed for comic production, and how do you determine the specific needs of your project?

Design and Pre-Visualization— How do design elements (like costumes, props, and sets) get planned and pre-visualized during pre-production?

Wardrobe Planning—What techniques are used to plan and coordinate wardrobe for a production?

Health and Safety Planning—How do you develop a health and safety plan for your production, and what are its key components?

Comic Conventions — Focal Points, Environments & Backgrounds

WHAT ARE FOCAL POINTS AND ENVIRONMENTS / BACKGROUNDS?

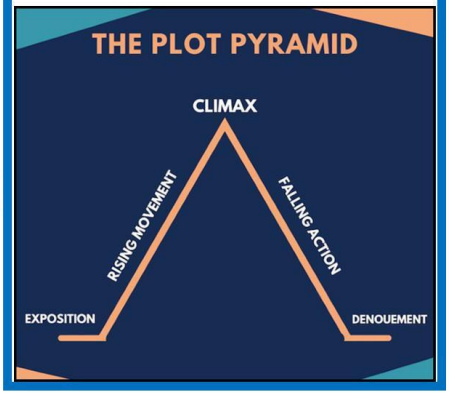
FOCAL POINTS are contained within every panel, they are simply designed to draw the readers eye to key points and support the story.

Your eye is drawn to her eyes here, this is the focal point, you look at her eye, then what she is looking at. It suggests the character is looking for something...

ENVIRONMENT / BACKGROUND are exactly what they sound like - they set up where the plot is set.

Here it is a little girls bedroom. You know this because....?

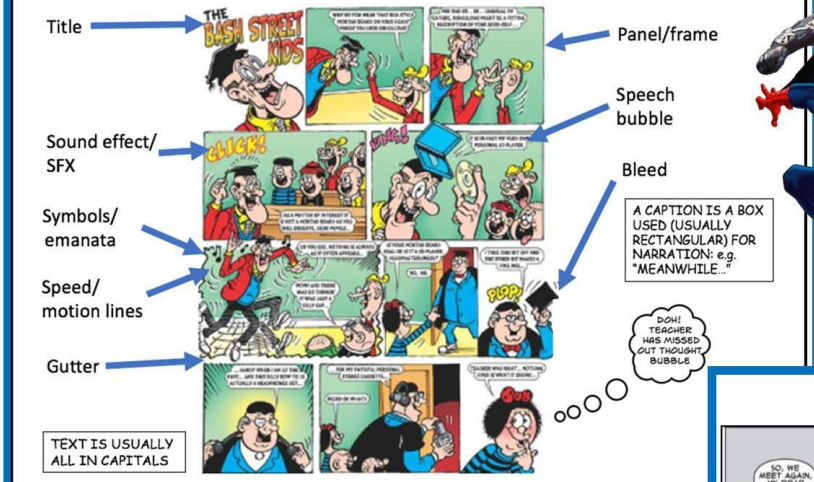
Plot Pyramid—Creating a Narrative



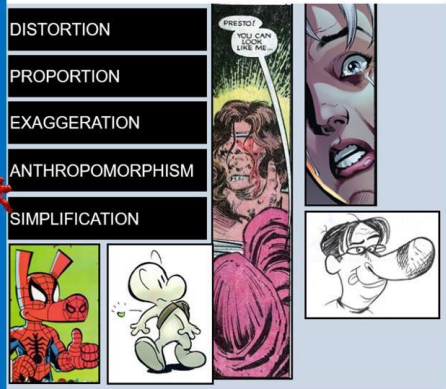
Creating effective characters — Physical and Non-Physical Characteristics

Creative iMedia – Comic Books

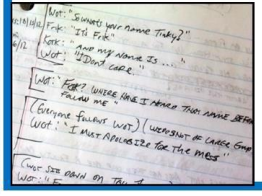
Panel Layout



Comic Drawing Styles



Planning a comic and Scripting



Understanding Typography

Balloon A balloon tail points to a character's mouth as if an invisible line continued on past the end of the tail to their face

Burst Balloons: These are used/represents when someone is screaming their dialogue. Burst balloons typically aren't italicized, but are often bold with certain words enlarged or underlined for even more emphasis.

Joining Balloons with connectors; There are two instances where this is used. The first is when a character says two separate ideas expressed one after the other.
The second instance is when two characters are speaking in a panel and the conversation goes back and forth between them.

Thought balloon: This shows when someone is thinking by it being like a bubble. This is rarely used now and is slowing fading out.

Creative iMedia – Comic Books – Questions 1

Research and Inspiration— How can researching different genres and styles of comics inspire and inform your own work?

_____

_____

_____

Concept Development— What are the key elements to consider when developing the concept for a comic?

_____

_____

_____

Character Design— How do you create compelling and memorable characters for your comic?

_____

_____

_____

Storyboarding— What is a storyboard and why is it important in the comic creation process?

_____

_____

_____

Panel Layout— How do you decide the layout of panels on a comic page?

_____

_____

_____

Pacing and Flow— How do you maintain a good pacing and flow in your comic to keep

_____

_____

_____

Creative iMedia – Comic Books – Questions 2

Art Style - How do you choose the appropriate art style for your comic?

_____

_____

_____

Script Writing — What should a script for a comic include, and how does it differ from a traditional story?

_____

_____

_____

Copyright and Legal Issues— What should you know about copyright and other legal considerations when creating and publishing a comic?

_____

_____

_____

Design and Technology - Timbers

Softwoods

Pine

Spruce

Comes from **coniferous** trees

Cedar

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

Fir

Hardwoods

Beech

Oak

Comes from **deciduous** trees

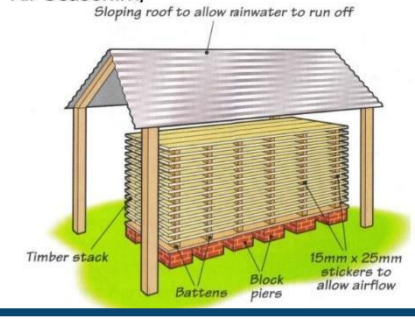
Ash

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

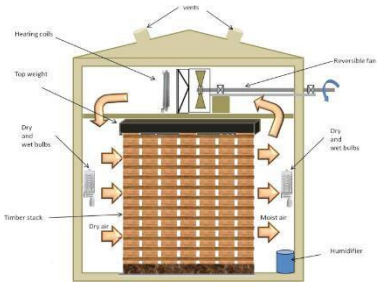
Teak

Manufactured Boards

Air Seasoning



Kiln drying (seasoning)



Softwoods

Generally easier to work with Grow faster More sustainable than hardwoods

Hardwoods

Generally harder
Generally more expensive
Grow more slowly
Generally more durable

Manufactured Boards

Consistent properties and more stable
Available in large sheets
Economic and environmental benefits as made from lower grade timber

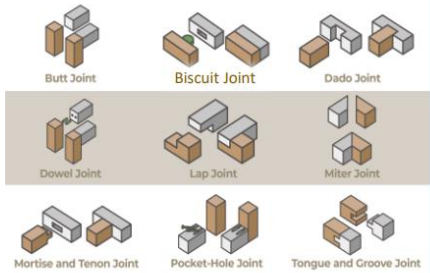
Ecological and social footprint

Trees are renewable (will regrow if planted) and timber is biodegradable (rot away)
Timber products can be reused and can often be easily repaired Converting a tree into usable planks of timber uses much less energy than processing metals or polymers (therefore uses less fossil fuels)
FSC (Forestry Stewardship Council) is used to ensure that trees are from a renewable source and saplings are planted to replace trees that were cut down.
Also ensures that, employment is local, workers are fairly paid, wildlife is protected.

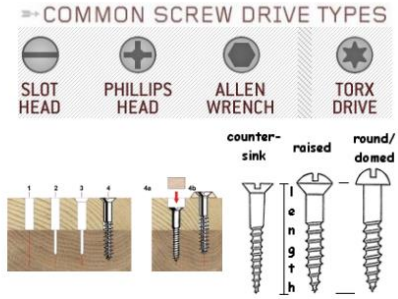
36

Year 9 Design and Technology - Timbers

WOOD JOINTS



Woodscrews



Adhesives

PVA
PU

EPOXY RESIN

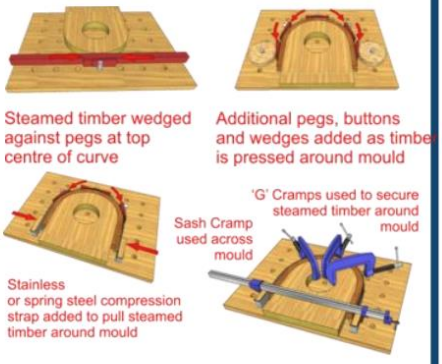
Clamping

Quick Clamp

G-Clamp

Sash Clamp

Steam Bending



Laminating

Veneering

Knock Down (KD) Fittings

Year 9 Design and Technology - Timbers

CAD – Computer Aided Design

High initial set up costs, high training need
Can lose work through machine malfunction/breakage
Can be cloud based allowing for collaboration
CAD models allow for simulation before committing to making
CAD packages allow for changes to be made easily

2D DESIGN V2 onshape AUTODESK FUSION 360

CAM – Computer Aided Manufacture

CAM machinery can make products directly from CAD drawings
CAM very useful where large quantities of the same product are required due to its accuracy
High initial set up costs, but can be offset as the machines don't need rest breaks as humans do
Can lead to loss of employment, can have high maintenance costs, the technology can fail.

Polymers

Can be coloured and shaped to make products.
Most are synthetic and made from crude oil meaning they are unsustainable.
They come from renewable sources such as plant starch.
Natural polymers e.g. biopol, are new and there are far fewer types.
PLA is the most common biopol and is used in 3D printing.

Thermoforming	Thermosetting
➢ Can be softened by heating and easily moulded to shape. ➢ Cooling hardens the polymer into the set shape. ➢ Can be re-heated and re-shaped ➢ Can be recycled	➢ Cannot be reheated once formed and cooled ➢ Make excellent insulators ➢ Cannot be recycled

Surface Finishes

Surface preparation is key, use glasspaper to remove marks and smooth out before ensuring the surface is free from dirt, dust, oils etc.

Wood stain	Oils
Preservative	Wax
Tanalising	Paints
Varnishes	Veneers

Year 9 Design and Technology - Timbers

Describe what 'seasoning' timber means.

Explain why this is important.

CAD and CAM are now widely used . What are the advantages and disadvantages of using CAD and CAM when designing and making products?

Many items of furniture are assembled using Knock Down (KD) fittings. What are the advantages to the manufacturer and the customer of using these fittings?

Why is it important to apply a surface finish to

Patio Decking

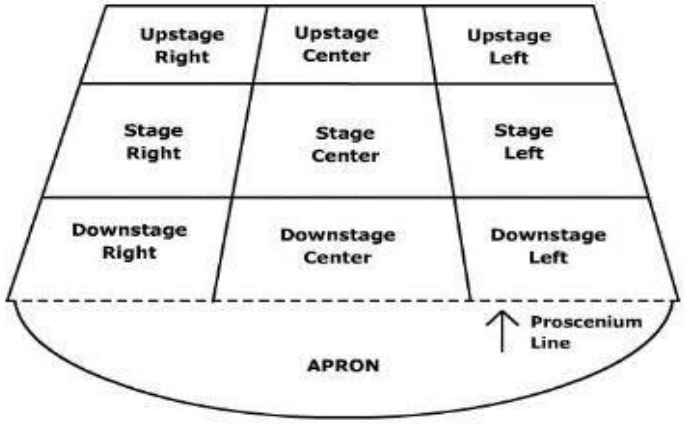
Fine Furniture

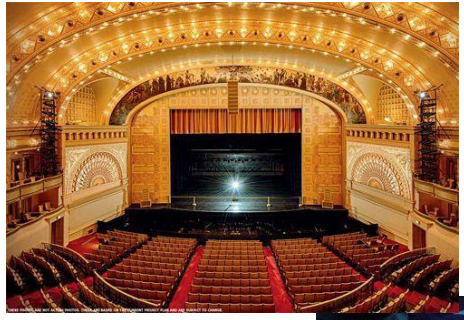
Explain the advantages of using manufactured boards rather than natural timber.

Explain why hardwood is considered by some to be an unsutainable material.

Drama – Year 9.1

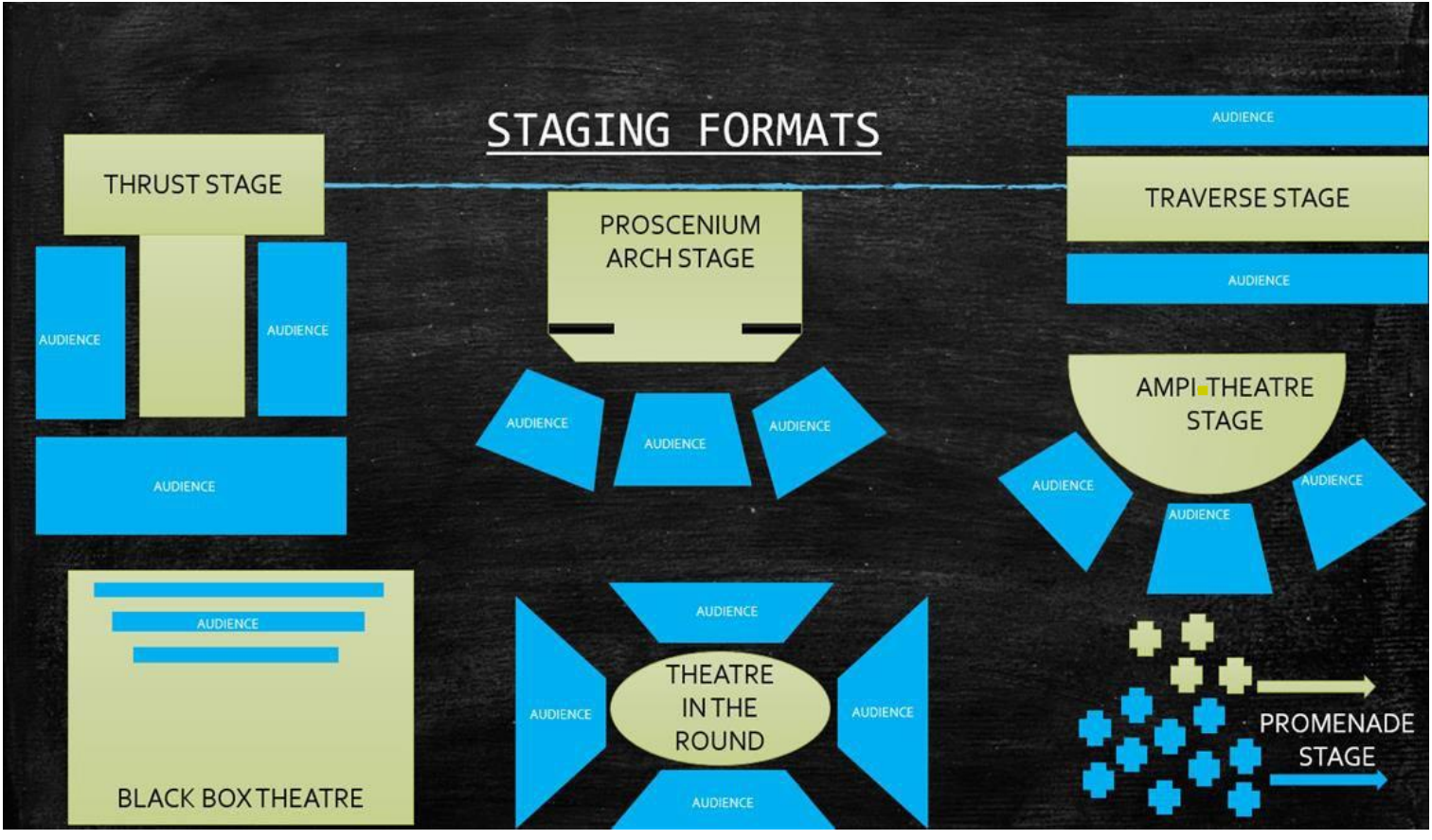
Stage layout. ALWAYS from the actors point of view. (When you are standing on stage looking at the audience)





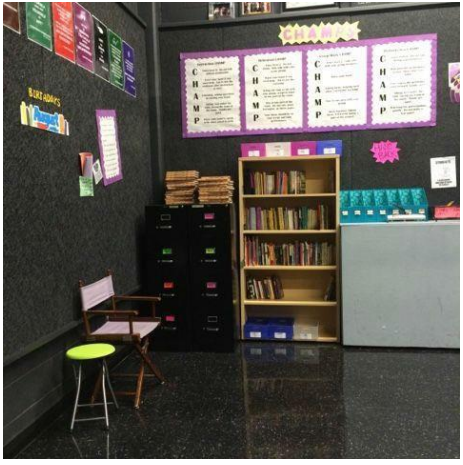
Key words: Gestures, Proxemics, Facial Expression, Rhythm, Falsetto, Unison, Ensemble, Body Language, Plot, Emphasis, Diction, Narration, Catharsis, Setting, Content, Stimuli, Time Period, Status, Motivation, Sub Text.

Drama – Year 9. 2



Drama Year 9.3

DO's of mime ✓	DON'Ts of mime ✗
DO Exaggerate characteristics	DON'T Turn your back on the audience
DO Face the audience	DON'T Laugh on stage
DO Be confident!	DON'T Look at the floor
DO Carry on if things go wrong	DON'T Rush through your lines
DO Make eye contact with the character you're talking to	DON'T Be nervous, just try your best!



<u>Elements of Drama</u> Script:

The Text of the play

Cast of Characters: All of the characters, usually portrayed by actors

Narrator: The person who tells the audience what is happening during the performance.

Setting: The time and place

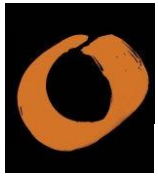
Act and Scene: The chapters

ons:

g the

Drama Year 9.4

VOCAL SKILLS	PHYSICAL SKILLS		
PITCH	INFLECTION	POSTURE	BODY LANGAUGE
PACE	PAUSE	STANCE	EYE CONTACT
TONE		GAIT	PROXEMICS
VOLUME		GESTURES	
ACCENT		FACIAL EXPRESSIONS	



EVALUATE	Consider several options, ideas or arguments and use evidence to come to a conclusion about their importance/success.
ANALYSE	Break down the topic or issue into its different elements to provide an in-depth understanding of each element.
EXPLAIN	Use examples and key terms to support an idea, giving detailed reasons behind the idea. (E.g. why?)
JUSTIFY	Use evidence to support an argument or idea.
DESCRIBE	Provide a detailed account in words of something.

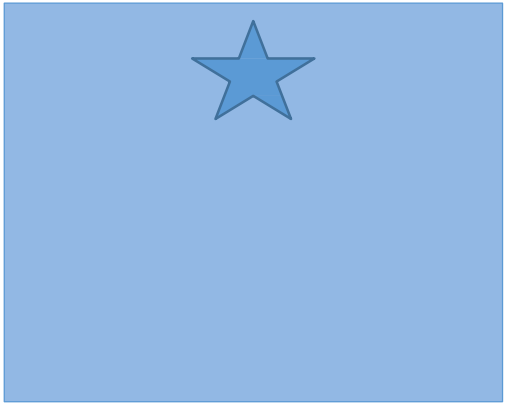
The story of Noughts & Crosses
We follow the love story of Sephy and Callum, two young people kept apart by bigotry, terrorism and injustice. Sephy is a Prime Minister's daughter from the powerful Crosses who falls for rebel Callum, son of a dangerous nought agitator.

Drama Year 9.5

drama and theatre terminology and how to use it appropriately	• stage positioning (upstage, downstage, centre stage) • stage configuration • theatre in the round • proscenium arch • thrust stage • traverse • end on staging • promenade
the roles and responsibilities of theatre makers in contemporary professional practice.	• playwright • performer • understudy • lighting designer • sound designer • set designer • costume designer • puppet designer • technician • director • stage manager • theatre manager.

Drama – Year Questions 1

1. What stage position is the star in?



Audience Audience Audience

- A Centre Stage
- B Upstage Left
- C Upstage Centre

2. In the professional theatre, who is responsible for studying another's role so they can take over if needed?

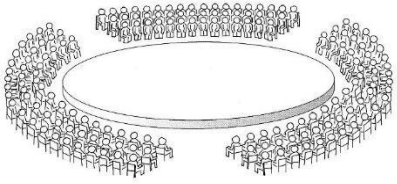
A The Lead Performer

B The Understudy

C The Director

Drama Year 9- Questions 2

3. What type of stage is this?



- A End-On
- B Traverse
- C In-the-round

4. When performing ‘end-on’ which area of the stage is strongest?

A Up stage right
B Down stage centre C Centre Stage

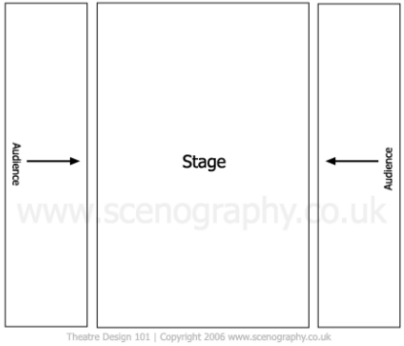
5. In the professional theatre, who is responsible for making sure all the props are found or made during rehearsal?

A Set Designer B The Director
C The Stage Manager

Drama Year 9 – Questions 3

6. What type of stage is this?

- A Traverse Stage
- B Thrust Stage
- C. Proscenium Arch



7. What stage position is the star in?

- A Stage Left
- B Upstage Left
- C Upstage Centre

8. When performing 'traverse' which of the following do you need to consider?

A You have to face only one side of the audience
B You have to change your position frequently
C You have to ensure you use low levels

English – An Inspector Calls – The plot

Act One – The play begins in 1912 with a dinner celebrating the marriage of Sheila Birling to Gerald Croft. Gerald gives Sheila her ring. Sheila and Sybil leave the room to try on wedding clothes. Eric goes upstairs. Arthur tells Gerald he knows the Croft family considers themselves social superiors of the Birlings, but that is easily remedied, he says, as he expects a knighthood for his business successes. Eric returns, and Arthur gives the two young men advice about life, saying that people ought to look out for themselves and their families, and not fall prey to socialist propaganda about the collective good. Edna, the maid, announces that an Inspector Goole is here to speak to Arthur. He announces that a girl named Eva Smith has died of an apparent suicide. The Inspector asks Arthur if he knows anyone by that name. Arthur initially denies it, but after seeing a picture, he admits to employing Eva at his factory, and firing her when she incites a failed strike for higher wages. Arthur says he is not sorry for doing so, even though he is sad to hear of the girl's death. Arthur believes that his foremost obligation is to his profits. When Sheila returns to the room, the Inspector begins interrogating her. It is revealed that Sheila got a girl fired from Milward's, a local shop, for giving Sheila mean looks as she was trying on clothing. Sheila regrets to hear that the person she incriminated was none other than Eva Smith, and that she and Arthur are responsible, in part, for Eva's poverty and suicide. The Inspector then asks Gerald if he knows someone named Daisy Renton. Sheila realizes, from Gerald's expression, that Gerald knows this name. When all but Sheila and Gerald leave the room, Sheila accuses Gerald of having had an affair with Daisy Renton the previous summer. Gerald admits to this. He asks Sheila to hide this information from the Inspector, but she says it will not be possible because the Inspector probably already knows.

Act Two begins with the same set. The Inspector questions Gerald about Daisy Renton, and Gerald admits to the affair in front of Sheila and her parents, Arthur and Sybil. Gerald is embarrassed by his indiscretion, but insists his concern for Daisy was authentic. Sheila wonders if she can forgive Gerald enough to continue their relationship. Gerald tells the Inspector he is going to leave for a walk. The Inspector moves on to Sybil, who, on being questioned, says that she, as director of a charity, refused assistance to a pregnant woman. The Inspector tells them that the girl Sybil turned away was Eva Smith, or, as Gerald knew her, Daisy Renton. The Inspector also says that Gerald was not the one who got Eva pregnant. Sybil says she feels no regret, as Eva/Daisy had claimed she was pregnant but was not married to the child's father. To this, Sybil responded that Eva/Daisy should ask the child's father for money, who Sybil blames for the situation, and for Eva/Daisy's suicide. Sheila and Arthur tell Sybil to stop talking. In this moment, Sybil realizes that her son, Eric, must be the father, since Eva/Daisy presented herself to the charity as "Mrs. Birling." Eric returns to the room.

Act Three, with the same set, begins with Eric admitting to an affair with Eva/Daisy, and to a drinking problem that makes many of the details hazy. The Inspector demonstrates that each member of the Birling family, and Gerald, has played a part in Eva/Daisy's suicide, and that all should consider themselves guilty. Before he leaves, the Inspector says that people must look out for one another, and that society is "one body." The Inspector departs. Sheila, wracked with guilt, wonders aloud whether the Inspector is a member of the police force. The family puzzles this out, and when Gerald returns, he says he spoke to a sergeant outside who does not know of any Inspector with the name of Goole, the man who just visited the Birling home. Arthur believes that the family has been hoaxed, and that this is a good thing, since their misdeeds will not now result in public scandal. Sheila resents Arthur's rationalization of the family's behaviour, and she says they are still guilty for Eva/Daisy's death, even if the Inspector was not a genuine officer. Gerald, however, notes that no family member saw the picture of Eva/Daisy at the same time, and that the Inspector might have conflated the family's stories by offering pictures of different women, and changing the names from Eva Smith to Daisy Renton. The phone rings, and Arthur answers. He alerts the family that a girl has been admitted to the hospital just now, and that her death is a suicide. As the play ends, Arthur relays to the family that a police inspector is headed to the house to begin an inquiry.

English – An Inspector Calls – Key Characters & Vocabulary

Key Characters					
Arthur Birling	Represents the capitalist class that controls the wealth and means of production: more concerned with material gain and conventional attitudes. He is a wealthy factory owner in his mid-50s.	**Sybil Birling**	Arthur's wife of a higher class. An unsympathetic woman who represents the bourgeoisie (female) upper class. More than any other character, she is adamant that she is blameless in Eva Smith's suicide.	**Gerald Croft**	Gerald Croft represents the aristocracy, the highest class of society, comprised of rich land owners and people who inherit their wealth from their parents. Engaged to Sheila.
Eric Birling	Same age and of the same mind as his sister. He is adolescent in his manner ('half shy, half assertive', according to Priestly) and drinks too much, perhaps because he has not yet found a meaningful role in life.	**Sheila Birling**	Early twenties, bright, lively and optimistic. Unlike her parents and fiancé, she expresses deep regret for her role in Eva Smith's suicide.	**Inspector Goole**	A mysterious figure. His name evokes the word 'ghoul', meaning evil spirit or phantom. He doesn't officially exist, and appears to have supernatural powers of perception and persuasion. Reflects Priestley's socialist views.

Key Vocabulary

ALTRUISTIC – having or showing a genuine concern for the welfare of others, not selfish, compassionate.
ARTISTOCRATIC – belonging to the aristocracy e.g. lords/ladies. Inherit their titles, wealth and land.
AUDACIOUS – showing a willingness risks, rash, bold, lack of respect.
BELITTING – dismiss someone or something as unimportant.
BOURGEOISE – the wealthy, middle class, referring to being materialistic and obstinate attitudes.
CAPITALISM – an economic system which is driven by competition and motive to make profit.
CONDESCENDING – having or showing an attitude pf patronising superiority.
CONTRITE – showing sorrow or remorse for doing something wrong.
DIDACTICE – to teach
DOGMATIC – arrogant attitude on false theories.
IMPERTINENT – being rude.
MATERIALISTIC – excessively concerned with material possessions, money orientated.
NAÏVE – showing a lack of experience, wisdom or judgement.
OBSTINATE – fixed, unwilling to change, stubborn.
OMNISCIENT – all seeing, all knowing.
OSTENTATIOUS – show off, pretentious.
PREJUDICED – having or showing a dislike or distrust that is based on a biased opinion.
PROLETARIAT – working class.
SOCIALISM – an economic system based on equal opportunities and fairness rather than competition.
STEREOTYPE – a widely held belief or idea.
SUBSERVIENT – willing to submit to others, to serve.

English – An Inspector Calls – Key themes, terminology & context

Key Themes		Key Terminology	
Collective Responsibility	This is the idea that everyone has a responsibility to each other. The Inspector tries to teach this lesson.	**Stage Directions**	Prompts that show what is happening on stage or how a character might deliver a line.
Gender	Eva Smith is discriminated on account of her gender. Every man in the play is able to exploit her due to the patriarchal society of 1912.	**Contrast**	Where two different things are placed together to highlight their differences.
Age / Generations	This theme explores the differences between the older and younger characters in the play.	**Dramatic Irony**	Where the audience is aware of something the characters in a play are not.
Social Class	This is the idea that society is split into three 'classes, based on wealth and social status. Eva is discriminated for being lower class and often belittled by those of higher class than her.	**Foreshadowing**	Where clues are provided about what might happen later in a story/play.
		Symbolism	Using something to represent something else. E.g. the Inspector is a symbol for socialism.

Contextual information

Life in 1912 vs 1945	Priestley's Socialist Vision
Society in 1912 was dictated by rigid class and gender boundaries. This meant little chance of progression for the vast majority of the working class populated, but more so for working class women. By 1945, people wanted change and society saw protests for things such as better working conditions, housing, pensions, education and equal rights for women. Priestley wanted society to abandon the 'outdated' values of 1912, and move forward with a better society.	Priestley was fiercely political and an active supporter of the Labour party. He wanted to make radical social reforms following WW2. Priestley uses the Inspector as his mouthpiece to spread his socialist vision for the future. He wanted to highlight the issues he saw in society such as selfish capitalist attitudes and replace them with a society that works for everyone, not just the privileged elite.

English – An Inspector Calls – Key quotations

Key Quotations		
ACT ONE	ACT TWO	ACT THREE
“a man has to look at himself and his family too of course” – Mr Birling “working together for lower costs and higher prices” – Mr Birling “as if we’re all mixed up together like bees in a hive” – Mr Birling “community and all that nonsense” – Mr Birling “creates at once an impression of massiveness, solidity and purposefulness” – stage direction for Inspector “We’re respectable citizens and not criminals” - Gerald “Public men, Mr Birling, have responsibilities as well as privileges” – Inspector “It had nothing to do with the wretched girl’s suicide” – Mr Birling “You couldn’t have done anything else” – Gerald “Why shouldn’t they try for higher wages?” – Eric “I’d have let her stay” - Eric “It’ better to ask for the earth than to take it” - Inspector “But it didn’t seem to be anything very terrible at the time” – Sheila “I felt rotten about it at the time and now I feel a lot worse” – Sheila “If she’d been some plain and miserable little creature then I don’t suppose I’d have done it” - Sheila “We can keep this from him” - Gerald “I don’t come in to this suicide business” - Gerald	“Young, fresh and charming” – Gerald “I hate those hard-eyed, dough-faced women” - Gerald “I was sorry for her” – Gerald “I didn’t install her there so I could make love to her” - Gerald “I didn’t feel about her as she felt about me” – Gerald “I’m rather more upset by this suicide business than I probably appear to be” – Gerald “You and I aren’t the same people who sat down to dinner” – Sheila “Girls of that class” – Mrs Birling “As if a girl of that sort would ever refuse money” – Mrs Birling “I’m very sorry, but she only had herself to blame” – Mrs Birling “You mustn’t try to build up a kind of wall between us and that girl” – Sheila “You’re behaving like a hysterical child” - Mrs Birling “You used the power you had to punish the girl” – Inspector “I did my duty” – Mrs Birling “Go and look for the father of the child. It’s his responsibility” – Mrs Birling “I did nothing I’m ashamed of or won’t bear investigation” – Mrs Birling “I don’t believe it. I won’t believe it” – Mrs Birling	“She was pretty and a good sport” – Eric “I hate those fat old tarts” – Eric “he treated me as if I were a kid, although I was nearly as old as she was” - Eric “Treated her as if she was an animal, a thing, not a person” – Inspector “I’ve got to cover this up as quickly as I can” – Mr Birling “You’re not the type of father a chap can go to when he’s in trouble” – Eric “Look Inspector, I’d give thousands, thousands” – Mr Birling “We are all members of on body” – Inspector “in fire, blood and anguish” - Inspector “We all helped to kill her” – Eric “he certainly didn’t make me confess” – Mrs Birling “he point is you don’t seem to have learned anything” – Sheila “It frightens me the way you talk” – Sheila “It’s what happened to the girl and what we all did that matters” - Eric “Everything’s alright now Sheila. What about this ring?” Gerald “The famous younger generation who know it all” – Mr Birling

English – An Inspector Calls – Key questions

1. Who is the writer of An Inspector Calls?
2. How many acts are in the play?
3. What does the word ALTRUISTIC mean? Which character could this word link to?
4. List the FOUR main themes in the play.
5. Give a quotation said by Eric.
6. Who says, "all mixed up like bees in a hive"? What language feature is used in this quotation?
7. Fill in the blanks: "They're not _____ _____, they're people."
8. Who describes Eva as "young, fresh and charming"?
9. What political beliefs did Priestley have?
10. When was the play set and when was it written?
11. What is Eva's last name?
12. What device does the writer use throughout the play where the audience are aware of certain things that the characters are not?
13. What does the word OBSTINATE mean?
14. Define the word NAÏVE.
15. What is Gerald's surname?
16. What other names does Eva use? (Name both)
17. What is Mrs Birling's first name?
18. Give a quotation said by Mrs Birling.
19. Give a quotation said by the Inspector.
20. Which characters take responsibility for their actions at the end of the play? (Name both)

English – Lord of the Flies

Context	Symbolism
• William Golding was a schoolteacher, so was drawing on his own knowledge and experiences when writing about the dynamics between the boys. • Golding returned from the war believing that anyone is capable of evil based on his experiences in the Navy. • The social hierarchies in 1950s Britain are shown through the divisions between Piggy and the other boys. • Golding drew on inspiration from R.M. Ballantyne's *The Coral Island*. However, the boys in this novel survive and act in a more civilised manner. • The threat of nuclear attack during the Cold War is reflected in the fact that a bomb has dropped at the beginning of the novella.	**The pig's head (aka The Lord of the Flies)** – represents Satan and the capacity for evil that the boys possess. **The conch** – this too represents democracy and civilisation. Once it shatters, Ralph is hunted like an animal. **Piggy's glasses** – represent knowledge and civilisation. When they are broken, the old world disappears and savagery rises. **The fire** – this could be seen as cleansing the island. It also represents the innate destruction which the boys are capable of. **The dead pilot** – symbolic because the war is still happening beyond the island. The island is a microcosm for the wider world.

English – The Lord of the flies – Key vocabulary and characters

Key Vocabulary		Characters	
Democracy	A way of governing/ruling a country which depends on votes from its people. Associated with fairness.	**Ralph**	Ralph is the primary representative of order, civilisation and democracy. His insistence of the use of the conch ties him to this key democratic symbol. While initially being described as a image of masculinity and strength, like the conch, Ralph's leadership becomes fragile. He demonstrates that everyone is susceptible to the dehumanising effects of losing civilisation
Tyrant	A cruel and oppressive leader. Rules through fear and violence.	**Piggy**	Piggy represents intelligence and logic. His glasses are a symbol of this intelligence and hope - a testament to mankind's scientific understanding. Physically he does not fit in and is of a lower class. As readers we partake in his bullying, only ever calling him 'Piggy'. He has a naïve faith in the infallibility of adults, He is a victim throughout. And only fully appreciated at the end of the novel.
Anarchy	A state of disorder, chaos, rioting.	**Jack**	Jack embodies what happens without the civilising influence of society—we become savages with dictatorial rule and ritualised violence. Golding uses Jack as a foil to Ralph, highlighting their leadership differences.
Civilised	To behave in a polite, dignified manner.	**Simon**	Simon can be interpreted as a Christ-like figure. He has an affinity with nature, seeks solitude, is kind and suffers from many hallucinatory/fainting experiences. It is through Simon that we hear Golding's message explicitly: he speaks with the Beast and thus loses his innocence, understanding that evil is within all humanity. Simon is killed by the boys, demonstrating the power of savagery and the mob mentality
Savagery	Cruel, violent and barbaric behaviour.	**Roger**	Roger represents the innate evil. His violence escalates quickly from throwing stones in Chapter 4 to "sharpening a stick at both ends" to the brutal, blunt murder of Piggy. Contextually, Roger represents people who take pleasure in their persecution of others when sanctioned by authority, such as Jack.
Conformity	To comply with expectations/ rules/laws.	**Sam & Eric**	Identical twins, Sam and Eric merge together and gradually lose their individual identities as the novel continues. This change represents how easily it is to forget or change our social conditioning and lose our sense of identity.
Microcosm	A little world. Where a large community/place has been encapsulated in miniature.	**The Littluns**	The littluns—remain mostly anonymous in the novel. However, the "boy with the birthmark" is memorable, therefore it's more apparent he is missing. This is the first death on the island and highly significant. Percival Wemys Madison's forgetting his phone number in Chapter 5 is just as significant, as it shows how social conditioning is beginning to fade. This makes the other littleuns cry in a display of existential angst as they realise their links to civilisation are fading too.

English – The Lord of the flies – Chapter summaries

Chapter Summaries:	
Chapter One	**The Sound of the Shell:** Some boys crash land on an island and elect a chief (Ralph) and he selects Jack Merridew to lead the choir, who become hunters. Piggy immediately becomes the target of the other boys who make fun of him. Piggy finds a conch shell and shows Ralph how to blow it. The sound of the shell calls the boys together for assemblies to discuss important matters. At the assembly, Jack, Simon, and Ralph decide to explore the island and find a trapped pig which gets away from them.
Chapter Two	**Fire on the Mountain:** One of the littluns mentions a snake thing, a beastie, which sends fear throughout the group. They debate its existence and determine the littluns were having nightmares. Ralph decides they need to make a fire on the mountain as a rescue signal. They use Piggy's glasses to light the fire. The fire rages out of control. One of the littluns dies in the conflagration (a fancy word for large fire). Piggy and Jack argue.
Chapter Three	**Huts on the Beach:** Jack is obsessed with hunting pigs although he has yet to catch one. Ralph and Simon work on the huts. Everyone else plays. Jack has started to become savage in his quest for blood. Ralph and Jack argue. Simon wanders off, helps the littluns get fruit, and continues to an isolated location on his own.
Chapter Four	**Painted Faces and Long Hair:** Roger and Maurice bully the littluns on the beach. Jack paints his face for hunting. He leads the boys on a hunting expedition. As Jack and the hunters are out, a ship passes by. Ralph realises the hunters have let the fire go out. He races to the top but is unable to light it in time. Jack and the hunters return with a pig. Ralph and Jack argue. Jack punches Piggy in the gut. One of Piggy's lenses from his glasses breaks. The boys cook the pig and have a feast.
Chapter Five	**Beast from Water:** Ralph tries to set things in order. He re-establishes rules regarding the fire. The subject of the beast is brought up. Jack argues the island is too small for a beast. One of the boys claims the beast comes from the sea. The boys argue. Simon suggests that they are the beast. They all make fun of him. The arguing continues. Jack storms away from the meeting with his hunters, who make horrific sounds in the darkness. Piggy begs Ralph to call them back with the conch. He longs for grown-ups to make things right.
Chapter Six	**Beast from Air:** A plane is shot down high above as the children sleep. A dead parachutist lands on the island stuck in the rocks and trees. Samneric see the dead parachutist and mistake it for the beast. The boys hunt for the beast on a new area of the island; they can't find it. Jack thinks he's found a good fort from which to throw rocks at people. After not finding the beast, Ralph notices the fire has gone out. None of the others, especially Jack, seem to care.
Chapter Seven	**Shadows and Tall Trees:** The hunt for the beast continues. The boys come across a pig run and Ralph sticks a boar in the nose with a spear. The boar escapes. The boys act out a pig hunt with Robert playing the part of the pig. Even Ralph enjoys the spectacle. The quest for the beast continues until evening. Jack, Ralph, and Roger agree to scale the mountain. The three boys see the dead parachutist who they mistake for the beast and run away as fast as they can.
Chapter Eight	**Gift for the Darkness:** Jack calls a meeting, insults Ralph, and asks for Ralph to no longer be chief. Nobody else agrees. Jack, embarrassed, leaves the tribe and goes into the forest. The assembly continues. Simon suggests they go up the mountain. Piggy suggests they build the fire on the beach since the beast is on the mountain. The boys gather wood. The littluns sing and dance. Roger, Bill, Maurice, and other biguns escape into the woods, following Jack. Simon has also disappeared into his secret spot. Hunters track down a pig and kill it, offering it to the beast as a sacrifice. Flies swarm. The hunters race back to the beach to steal fire. Simon arrives at the pig's head after the hunters have left. He imagines the pig's head is speaking to him. The pig's head tells Simon he can't escape. Jack's hunters raid Ralph's camp for fire and invite the others.
Chapter Nine	**The View to a Death:** Simon passes out and wakes up. He explores, discovers the truth about the beast, and heads immediately to the beach to tell the others. Meanwhile, all the boys have left the original camp to join Jack's hunters. Even Ralph and Piggy go. There's a dispute. It rains. Jack and his hunters begin their chant. Simon appears from the forest. They kill him, mistaking him for the beast in their altered, crazed state. The dead parachutist is driven by the wind, over the boys, and out to sea. After the storm ceases, the boys gather around dead Simon as his body is washed out to sea.
Chapter Ten	**The Shell and the Glasses:** Ralph, Piggy, and Samneric are the only ones left in the original tribe. Ralph and Piggy express their horror over witnessing/participating in Simon's murder. Jack and his crew have taken up residence at the fort. Roger approaches and is told of one of the boys (Wilfred) being tied up and whipped. Jack and his tribe have been transformed into savages. They plot to steal fire. They raid Ralph and Piggy's camp and steal Piggy's glasses.
Chapter Eleven	**Castle Rock:** Piggy declares his intention to confront Jack and demand his glasses back. Ralph blows the conch at the fort entrance on Castle Rock. Ralph and Jack fight. Ralph demands Piggy's glasses. Jack's savages tie up Samneric. Piggy tries to talk sense into the savages. Roger wedges the giant rock loose. It smashes the conch and knocks Piggy off the cliff. Jack and the others throw spears at Ralph, who runs away.
Chapter Twelve	**Cry of the Hunters:** Ralph flees and returns at night to speak with Samneric who are the new guards. They warn Ralph to go away. Ralph learns the tribe will hunt him the next day like a pig. Roger is sharpening a stick at both ends. Ralph hides in a thicket. One of the twins gives away Ralph's location. They eventually fill the thicket with smoke. Ralph charges out and runs for his life. The hunters pursue. Ralph notices the island has caught fire. The hunters chase Ralph down to the beach where he finds a naval officer there to rescue them.

English – Lord of the Flies– Key questions

1.What is the term used to describe a little world or where a large community has been encapsulated in miniature?

(a) Microorganism (b) Microscope (c) Microcosm (d) Microwave

2.Write the definition of the following word: Democracy

3.What is the name of the writer of 'Lord of the Flies'?

4.How do the boys end up on the island at the start of the novel?

5.What does the word TYRANT mean?

6.What symbol is used to represent democracy?

7.What is the name of the main character?

8.What is SAVAGERY?

9.What word, beginning with A, means a state of disorder, chaos and/or rioting?

10.What does CIVILISED mean?

11.What is the name of the character who could be interpreted as being Christ-like and saintly?

12.Which character is obsessed with killing a pig?

13.What collective name do the boys give to the youngest members of the group?

14.What are the names of the twins in the novel?

15.What does the word CONFORMITY mean?

16.Who is Roger?

17.What does Piggy represent in the novel?

18.In what chapter do the boys leave a 'gift' for the beast? What is that gift?

Food and Health & Social Care: Food Safety & Hygiene

Food poisoning

Food poisoning is caused by eating something that has been contaminated with germs.

This can happen if food:

- is not cooked or reheated thoroughly
- is not stored correctly – for example, it's not been frozen or chilled
- is left out for too long
- is handled by someone who's ill or has not washed their hands
- is eaten after its "use by" date

Any type of food can cause food poisoning.

The ratings scheme helps to raise standards by making hygiene information to customers.

A score of 5 means that the inspector witnessed very high levels of hygiene and food safety practices during their visit

Food poisoning bacteria
Bacillus Cereus
Staphylococcus Aureus
Clostridium Botulinum
Salmonella
Clostridium Perfringens

Pests





Ideal conditions for bacterial growth




Time

All bacteria grow by dividing in two. This process is known as BINARY FISSION and in ideal conditions 1 bacterium may become more than 1 million in just 3 ½ hours.

Food

Pathogenic bacteria can grow well in high protein foods such as poultry, meat and eggs.

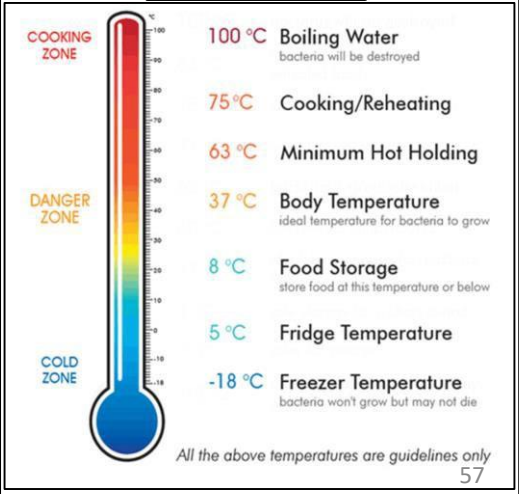
Moisture

All bacteria need moisture. Most foods have enough for bacteria to thrive.

Warmth

Most bacteria grow rapidly at body temperature (37C) but can grow between 5C and 63C (this is known as the **'danger zone'**).

Temperatures



Food Safety & Hygiene

Good food safety practices are essential because …

The effects of poor food safety practices can include …

List some examples of contaminates under each heading:

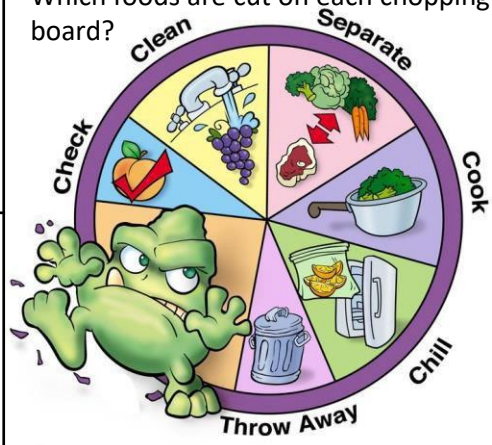
<u>Physical</u>

<u>Allergenic</u> <u>Chemical</u> <u>Microbial</u>

Write down the 5 most important things that can be done to prevent pests in a kitchen.

1.
2.
3.
4.
5.

Which foods are cut on each chopping board?

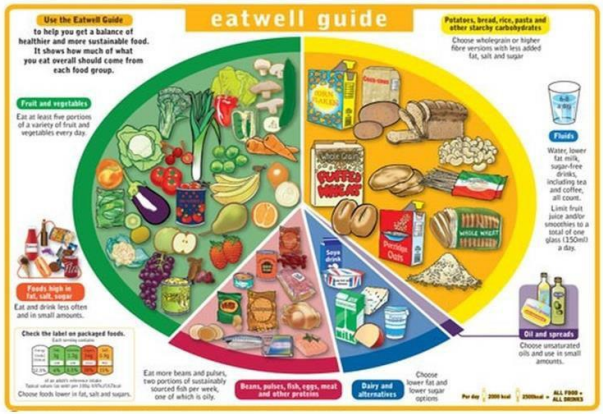


1. What is the most important reason for food handlers to have high standards of personal hygiene?
a)To reduce the risk of biological contamination
b)To improve working relationships with colleagues
c)To remove the need to wear protective clothing
d)To increase the time they need for training

2. Contamination is best described as:
a)Combination of ingredients in a food
b)Presence of any harmful substance or object in food
c)Removal of stains from a chopping board
d)Process by which milk is heat treated.

3. Which of the following is a physical hazard?
a) Bleach b) spore c) plaster d) disinfectant

Food and Health and Social Care: Diet and good health



The 8 Healthy Eating Guidelines

1. Base your meals on starchy foods.
2. Eat lots of fruit and veg.
3. Eat more fish.
4. Cut down on saturated fat and sugar.
5. Try to eat less salt – not more than 6g a day.*
6. Get active and try to be a healthy weight.
7. Drink plenty of water.
8. Don't skip breakfast.

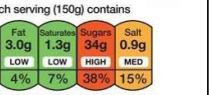
Nutrition Labelling

Nutrition Facts

4 servings per container
Serving size 1 1/2 cup (208g)

Amount per serving	
Calories	**240**
	% Daily Value*
Total Fat 4g	5%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 430mg	19%
Total Carbohydrate 46g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%

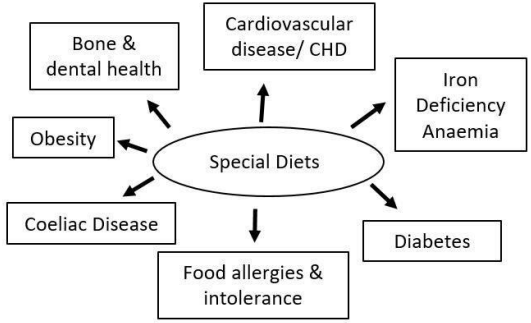
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

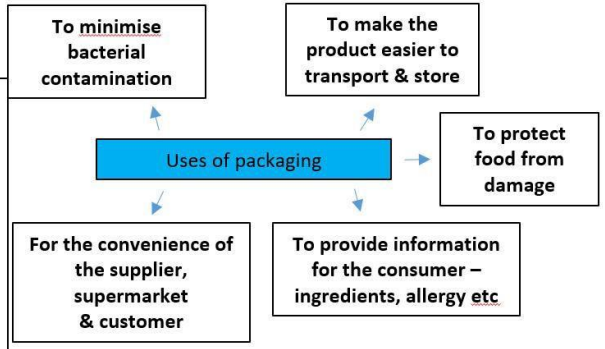


Each serving (150g) contains

Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g LOW	1.3g LOW	34g HIGH	0.9g MED
13%	4%	7%	38%	15%

of an adult's reference intake
Typical values (as sold) per 100g: 697kJ/ 167kcal





Packaging waste can be minimized by:

- Recycle as much packaging as we can using the correct coloured bins.
- Reuse packaging containers for storage e.g. ice cream containers, jam jars, yoghurt pots etc
- Use bags for life or traditional shopping bags
- Buy perishable foods from independent shops e.g. local butchers. Foods will be wrapped in a plastic bag/paper instead of a large plastic box
- Buy 'loose' fruit & veg rather than pre-packed

Task: Find the definitions /explain the following terms:

1.Undernutrition

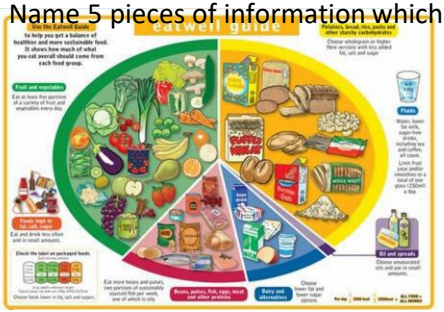
2.Overnutrition

3.Malnutrition

Q: Discuss how **consumers** can help to reduce the environmental impact of food packaging.

Diet and Good Health

Name 5 pieces of information which



should be found on food packaging

1

2

3

4

5

Jade wants her 3 year old son to have a healthy, balanced diet. Describe how Jade can set a good example of healthy eating habits to her son

Name the 5 sections of the Eatwell guide

1

2

3

4

5

Explain **why** each nutrient is needed by the body/what it does for the body

1

2

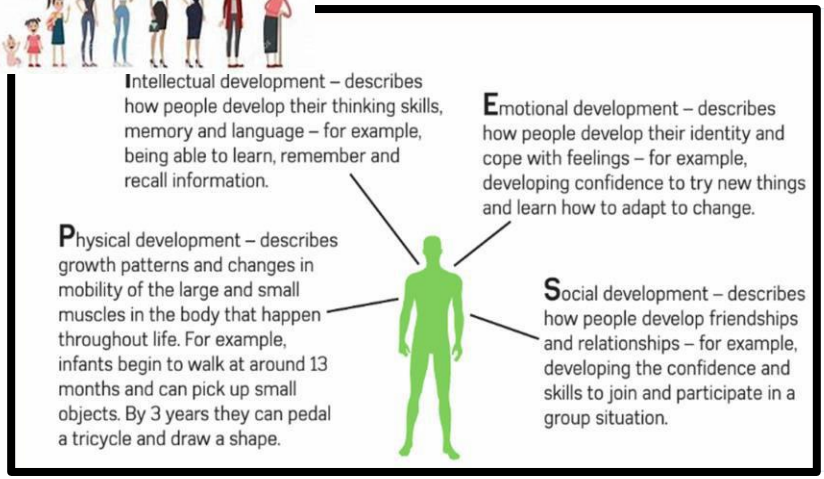
3

4

5

Food & H&SC: Human Growth and development

Age Group	Life Stage	Developmental Progress
0 – 2	Infancy	Still dependent on parents but growing quickly and developing physical skills
3 – 8	Early childhood	Becoming increasingly independent, improving thought processes and learning how to develop friendships
9 – 18	Adolescence	Experiencing puberty, which brings physical and emotional changes
19 – 45	Early Adulthood	Leaving home, making own choices about a career and may start a family
46 - 65	Middle Adulthood	Having more time to travel and take up hobbies as children may be leaving home; beginning of ageing process
65+	Later Adulthood	The ageing process continues which may affect memory and mobility



Factors which can affect growth and Development

Genetic inheritance – looks, body size/shape, traits, conditions
Experience of illness and disease – asthma, CHD, COPD, obesity, diabetes type 2.
Lifestyle choices – diet, exercise, alcohol, drugs, smoking
Appearance – self image, self esteem
Culture - gender, community, religion, expectations
Educational experiences – exclusion from school **Role models**
Social isolation
Personal relationships – Marriage, divorce, parenthood
Income and wealth – housing, location
Material possessions

What are the 6 life stages an ages?

Life stage	Age range

Name 3 genetically inherited illnesses/diseases

1
2
3

Explain how addiction to drugs or alcohol can have a negative effect on a persons PIES growth and development

Food & H&SC: Human Growth and development

Areas of Development

Physical –

Intellectual –

Emotional –

Social -

Lifestyle choices

Explain how the following lifestyle choices can affect growth & development.

Drugs –

Alcohol –

Diet –

Exercise –

Smoking –

Appearance –

Food and H&S: Life Events

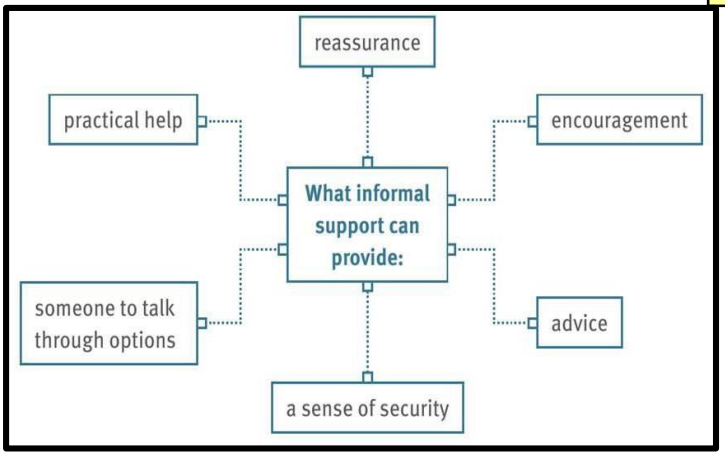
LIFE EVENTS – are expected or unexpected events that can affect development.

EXPECTED – is a belief that something is likely to happen.

UNEXPECTED – is not thought of as likely to happen.

Physical Events make changes to your body, physical health or mobility.
Relationship Changes impact on informal and intimate relationships.
Life Circumstances impacts on day-to-day life and the choices you make.

Types of Life Events		
Accident/Injury	Bereavement	Changing Jobs
Exclusion from Education	Ill health	Imprisonment
Moving to a new school/college	Parenthood	Redundancy
Divorce	Marriage	Retirement
Entering into a relationship	Starting school/college	Moving house



Professional Sources of Support
- GP
- Nurse
- Surgeon
- Paramedic
- social worker
- Counsellor
- Speech Therapist
- Domiciliary carer
- Care home worker
- Physiotherapist
- Careers advisor

Informal Sources of Support
- Friend
- Family
- Neighbour
- Community groups e.g. church

Food & H&SC: Life Events

Describe 2 life events you expect to happen in your future & 2 unexpected life events which could happen

<u>Expected Life Events</u> 1

2

Unexpected Life Events 1

2

Explain how relationship changes can impact on our emotional and social development

Emotional

Social

Describe the type of support that can be given by informal carers

Life Circumstance	List Positive Effects
Moving Home	
Exclusion from Education	
Redundancy	
Imprisonment	
Retirement	

Life Circumstance	List Negative Effects
Moving Home	
Exclusion from Education	
Redundancy	
Imprisonment	
Retirement	

Le Français the basics - 1

Numbers

French	English	Cover the French and write the French!
zéro	0	
un	1	
deux	2	
trois	3	
quatre	4	
cinq	5	
six	6	
Sept	7	
huit	8	
neuf	9	
dix	10	
onze	11	
douze	12	
treize	13	
quatorze	14	
quinze	15	
seize	16	
dix-sept	17	
dix-huit	18	
dix-neuf	19	
vingt	20	

French	English	Cover the French and write the French!
trente	30	
quarante	40	
cinquante	50	
soixante	60	
soixante-dix	70	
quatre-vingts	80	
quatre-vingt-dix	90	
cent	100	
mille	1000	
million	million	
siècle	century	
centaine	about a hundred	
dizaine	about ten	

Ordinal Numbers

French	English	Cover the French and write the French!	Repeat!
Premier (1er)	First		
Deuxième (2ème)	Second		
Troisième (3ème)	Third		
Quatrième (4ème)	Fourth		
Cinquième (5ème)	Fifth		
Sixième (6ème)	Sixth		
Septième (7ème)	Seventh		

Match the numbers up

dix-neuf

mille

dix-huit

quatre-vingt-dix

soixante

quarante

Le Français the basics - 2

Days of the week / Jours de la semaine

French	English	French Sentence	Translation
Lundi	Monday	Je travaille lundi.	
Mardi	Tuesday	J'ai cours d'allemand mardi.	
Mercredi	Wednesday	Mercredi est mon jour de congé.	
Jeudi	Thursday	Jeudi, c'est mon anniversaire.	
Vendredi	Friday	Je vais faire du shopping vendredi.	
Samedi	Saturday	Le samedi est mon jour préféré.	
Dimanche	Sunday	Le dimanche est un jour de repos.	

Seasons / Saisons

French	English	French Sentence	Translation
Printemps 	Spring	Au printemps, les fleurs s'épanouissent.	
Été 	Summer	Je vais souvent nager en été.	
Automne 	Autumn	Les feuilles tombent en automne.	
Hiver 	Winter	Il neige souvent en hiver.	

Months

Season	French	English	French Sentence	Translation
L'hiver 	Décembre	December	Décembre est un mois de fête.	
	Janvier	January	Mon anniversaire est en janvier.	
	Février	February	Je n'aime pas le février	
Printemps 	Mars	March	Les fleurs fleurissent en mars.	
	Avril	April	En avril, la météo est capricieuse.	
	Mai	May	Il y a beaucoup de fleurs en mai.	
L'été 	Juin	June	J'adore juin	
	Juillet	July	Nous partons en vacances en juillet.	
	Août	August	Août est le dernier mois de l'été.	
Automne 	Septembre	September	L'école commence en septembre.	
	Octobre	October	Il fait froid en octobre	
	Novembre	November	Novembre est souvent gris.	

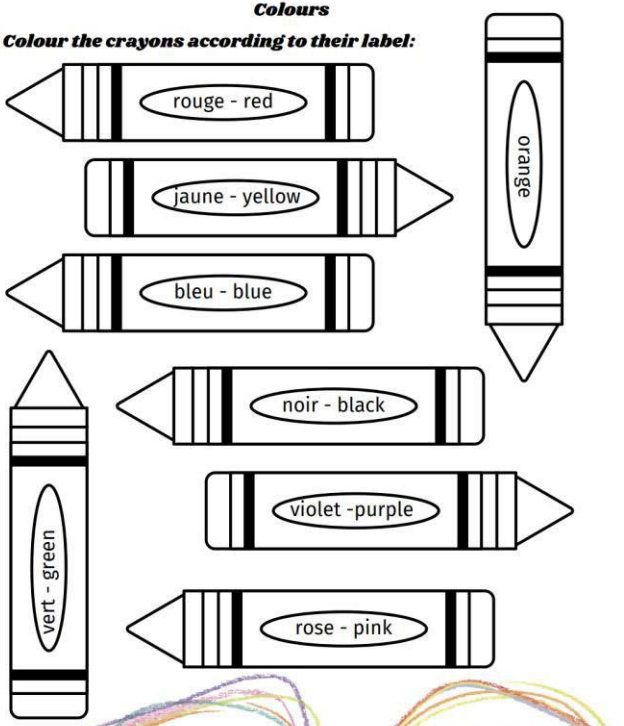
Le Français the basics - 3

Weather!

French	English	Cover the French and Write the Word	Repeat!
Le temps	The weather		
Il fait beau	It's sunny		
Il fait chaud	It's hot		
Il fait froid	It's cold		
Il pleut	It's raining		
Il neige	It's snowing		
Le soleil	The sun		
Le nuage	The cloud		
Le vent	The wind		
L'orage (m)	The storm		
Le brouillard	The fog		

Colours

Colour the crayons according to their label:



Le Français – the basics - 4

Countries

French	English	Cover the French and Write the French	Repeat!
Algérie	Algeria		
Canada	Canada		
Angleterre	England		
France	France		
Madagascar	Madagascar		
Martinique	Martinique		
Royaume-Uni	United Kingdom		
Afrique	Africa		
Amérique	America		
Asie	Asia		
Europe	Europe		
Fête nationale	Bastille Day 14th July		
Francophonie	French-speaking world		
Jour de l'An	New Year's Day		
Réveillon	New Year's Eve		
Paris	Paris		
La Tour Eiffel	The Eiffel Tower		
Le Tour de France	The Tour de France		
Fête de la musique	World Music Day		

Verbs - The BIG Four!

AVOIR	TO HAVE
J'ai	I have
Tu as	You have
Il/Elle/On a	He/She/One has
Nous avons	We have
Vous avez	You have
Ils/Elles ont	They have

ALLER	TO GO
Je vais	I go/am going
Tu vas	You go/are going
Il/Elle/On va	He/She/One goes/is going
Nous allons	We go/are going
Vous allez	You go/are going
Ils/Elles vont	They go/are going

FAIRE	TO MAKE
Je fais	I do/make
Tu fais	You do/make
Il/Elle/On fait	He/She/One does/makes
Nous faisons	We do/make
Vous faites	You do/make
Ils/Elles font	They do/make

ETRE	TO BE
Je suis	I am
Tu es	You are
Il/Elle/On est	He/She/One is
Nous sommes	We are
Vous êtes	You are
Ils/Elles sont	They are

Le Français – Key Verbs

Let's Practise - The BIG Four! Your Turn! Fill in the tables!

AVOIR	TO HAVE
	I have
	You have
	He/She/One has
	We have
	You have
	They have

ALLER	TO GO
	I go/am going
	You go/are going
	He/She/One goes/is going
	We go/are going
	You go/are going
	They go/are going

FAIRE	TO MAKE
	I do/make
	You do/make
	He/She/One does/makes
	We do/make
	You do/make
	They do/make

ETRE	TO BE
	I am
	You are
	He/She/One is
	We are
	You are
	They are

Let's Practise - The BIG Four! Fill in the gaps and translate:

AVOIR - TO HAVE

Je _____ un chien. _____

Nous _____ une grande maison. _____

Tu _____ des frères et sœurs ? _____

Elle _____ un chat noir. _____

Ils _____ beaucoup de devoirs. _____

ALLER - TO GO

1. Je _____ au cinéma ce soir. _____
2. Vous _____ à l'école tous les jours. _____
3. Il _____ chez sa grand-mère ce week-end. _____
4. Nous _____ souvent au parc. _____
5. Elles _____ en vacances demain. _____

FAIRE - TO MAKE

1. Je _____ mes devoirs après le dîner. _____
2. Elle _____ de la danse tous les samedis. _____
3. Nous _____ un gâteau pour l'anniversaire. _____
4. Tu _____ du sport tous les matins ? _____
5. Ils _____ une promenade chaque soir. _____

ETRE - TO BE

1. Je _____ content aujourd'hui. _____
2. Elle _____ une bonne élève. _____
3. Nous _____ en vacances en juillet. _____
4. Vous _____ fatigués après le travail. _____
5. Ils _____ en forme pour le match. _____

Geography – Fieldwork 1

1. Introduction to Fieldwork

Definition: Fieldwork is the process of observing and collecting data about people, cultures, and natural environments.

Purpose: To apply theoretical knowledge in real-world settings, enhance understanding of geographical processes, and develop analytical skills.

2. Planning Fieldwork

Aim and Hypothesis: Define the purpose of the fieldwork.

Aim: What you want to investigate.

Hypothesis: A statement you test (e.g., "Tourism has a positive impact on the local economy").

Location: Choose a relevant site for investigation.

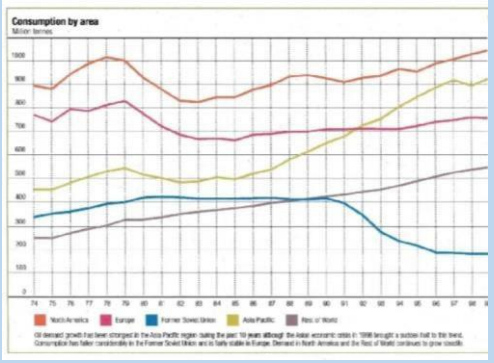
Risk Assessment: Identify potential hazards and safety measures.

Geography – Fieldwork 2

3. Data Collection Methods
Primary Data: Data collected first-hand during fieldwork.
Questionnaires/Surveys: Collecting information from people. **Interviews**: Detailed information through structured conversations. **Observations**: Recording what you see.
Sampling Methods:
Random Sampling: Every individual has an equal chance of being selected.
Systematic Sampling: Every nth individual is selected.
Stratified Sampling: Population is divided into sub-groups and sampled within each sub-group.
Environmental Quality Surveys (EQS): Assessing environmental factors.
Field Sketches/Photographs: Visual records of the site.

Secondary Data: Information collected from other sources.
Maps: Understanding geographical layout. **Census Data**: Demographic information. **Internet Sources**: Additional research data.

4. Data Presentation
Graphs and Charts:
Bar Charts: Comparing different categories.
Line Graphs: Showing trends over time.
Pie Charts: Proportional representation of data.
Maps:
Choropleth Maps: Showing variations in data across areas.
Dot Maps: Representing data points.
Annotated Maps: Adding notes to maps for clarity.
Tables: Organizing numerical data.
Diagrams: Visual representations (e.g., flow diagrams).



5. Data Analysis
Descriptive Statistics: Summarising data (mean, median, mode).
Inferential Statistics: Making predictions or inferences.
Identifying Patterns and Trends: Recognising significant data points.
Comparing Data: Analysing differences and similarities.
Conclusion: Link your findings back to your hypothesis: did your investigation help you to support
your hypothesis?

6. Evaluation
Assessing Methods: Reflect on the effectiveness of your data collection methods.
Identifying Limitations: Consider any constraints or biases. **Suggesting Improvements**: How could the fieldwork be improved? **Reliability and Validity**: Ensure data is accurate and credible.

Geography – Fieldwork - Questions

Questions	Your answers
What is the word given to a statement that you want to test during a piece of fieldwork?	
Why is it important to do a risk assessment before conducting a piece of fieldwork?	
List 3 different methods of primary data collection that might be done during fieldwork.	1. 2. 3.
List 3 types of sampling that might be done during a piece of fieldwork.	1. 2. 3.
Choose one type of data presentation (e.g., bar chart, pie chart) and explain why it might be particularly useful for representing geographical data.	

Geography – Natural Hazards 1

The Challenge of Natural Hazards

Definition of Natural Hazards
Natural Hazard: A natural event that poses a threat to people and property.

Types of Natural Hazards
Tectonic Hazards: Earthquakes, volcanoes.
Atmospheric Hazards: Hurricanes, tornadoes. **Geomorphological Hazards**: Floods.
Biological Hazards: Diseases.

Tectonic Hazards
Plate Tectonics Theory: Earth's crust is divided into plates that move due to convection currents in the mantle.
Plate Boundaries:

- **Destructive**: Plates move towards each other
- **Constructive**: Plates move apart
- **Conservative**: Plates slide past each other

Geography – Natural Hazards 2

The Structure of the Earth

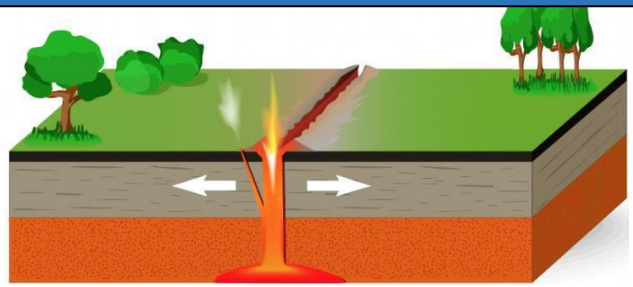
Crust: The thin, outer layer of the Earth.
Mantle: The thick, middle layer made of semi-solid rock that moves slowly.
Outer Core: A liquid layer made of iron and nickel.
Inner Core: The solid, central part of the Earth.

Plate Tectonics Theory

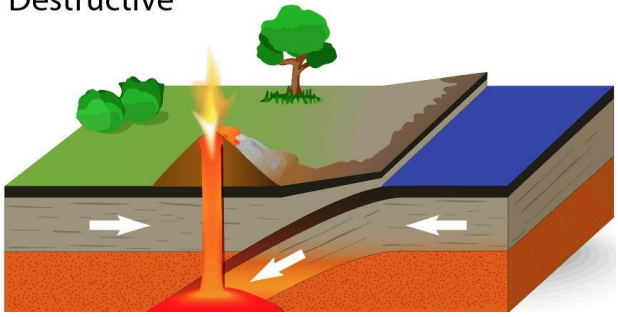
The Earth's crust is divided into large pieces called tectonic plates.
Plates move due to convection currents in the mantle.
Plate boundaries are where most tectonic activity occurs.

Types of Plate Boundaries (see diagrams to the right)

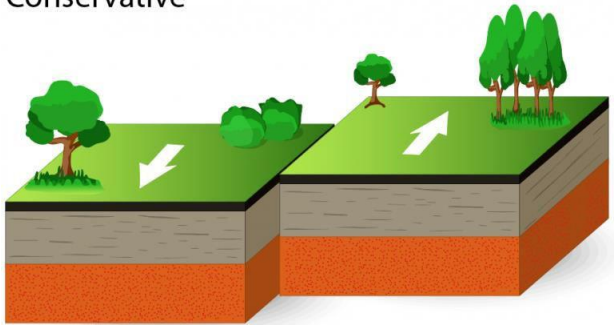
Constructive: Plates move apart, new crust forms (e.g., Mid-Atlantic Ridge).
Destructive: Plates move towards each other, crust is destroyed (e.g., Himalayas).
Conservative: Plates slide past each other (e.g., San Andreas Fault).



Destructive



Conservative



Geography – Natural Hazards 3

Types of Hazards Found at Plate Margins Earthquakes

Caused by the sudden release of energy in the Earth's crust. Focus: The point inside the Earth where the earthquake starts.

Epicenter: The point on the Earth's surface directly above the focus.

Seismic Waves: Energy waves that travel through the Earth during an earthquake. Measured using the Richter scale and seismographs.

Volcanoes

Openings in the Earth's crust that allow magma, ash, and gases to escape. Types of Volcanoes:

Shield Volcanoes: Broad, gently sloping sides (e.g., Mauna Loa). Composite Volcanoes: Steep-sided, explosive (e.g., Mount St. Helens).

Tsunamis

Large sea waves caused by underwater earthquakes, volcanic eruptions, or landslides.

Can cause significant coastal damage.

Geography – Natural Hazards 4

Case Study of a Tectonic Hazard in a Poor Part of the World: Nepal (an LIC)

Overview

Date: April 25, 2015

Magnitude: 7.8 on the Richter scale

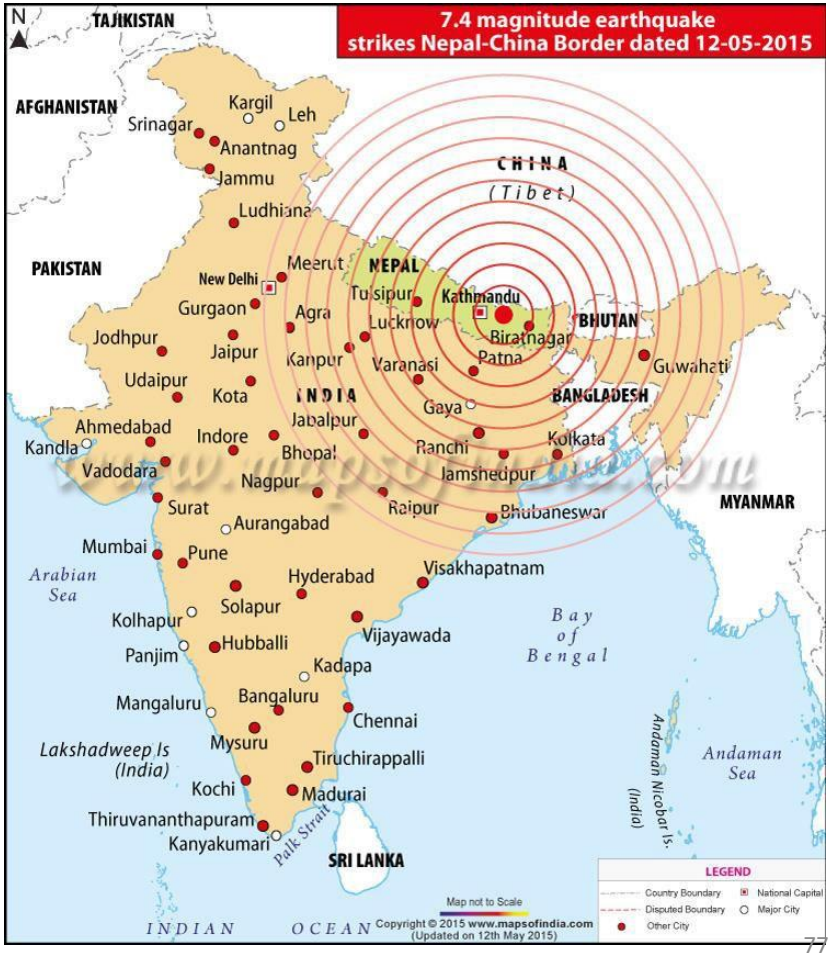
Epicentre: Gorkha District, northwest of Kathmandu

Depth: Approximately 15 km (shallow focus)

Causes

Tectonic Setting:

Nepal is located on the boundary between the Indo-Australian Plate and the Eurasian Plate. The earthquake was caused by the sudden release of built-up pressure as these two plates converged and the Indo-Australian Plate was subducted under the Eurasian Plate.



Geography – Natural Hazards 5

<u>Case Study of a Tectonic Hazard in a Poor Part of the World: Nepal (an LIC)</u>
Primary Effects
•**Casualties**:
•Over 8,800 people killed
•More than 22,000 injured
•**Damage**:
•Hundreds of thousands of buildings destroyed or severely damaged, including many historical sites.
•Infrastructure damage: roads, bridges, and utilities.
<u>Case Study of a Tectonic Hazard in a Poor Part of the World: Nepal (an LIC)</u> Secondary Effects
•An avalanche on Mount Everest killed 19 people.
•Landslides blocked rivers, causing floods.
•A lack of clean water caused outbreaks of typhus (which killed 13 people)
•Estimated $10 billion in damages, roughly half of Nepal's GDP.
•Tourism, a major industry, was severely affected.




Geography – Natural Hazards 6

Case Study of a Tectonic Hazard in a Poor Part of the World: Nepal (an LIC) Immediate Responses
Search and Rescue:
International aid teams from countries like India, China, the UK, and the USA.
Local volunteers and the Nepalese army involved in rescue operations.
Medical Aid:
Emergency medical supplies and services provided. Temporary field hospitals set up.
Shelter:
Distribution of tents and tarpaulins for temporary housing.
Many people sheltered in open spaces due to fear of aftershocks.
Long-Term Responses
Reconstruction:
The government launched a reconstruction campaign with international financial assistance.
Reconstruction of homes, schools, and historical monuments.
Economic Aid:
Financial aid from international organizations like the World Bank and IMF.
Disaster Preparedness:
Implementation of better building codes and practices.
Investment in early warning systems and disaster response training.
Case Study of a Tectonic Hazard in a Rich Part of the World: New Zealand (an HIC)

Overview **Date**: November 14, 2016
Time: 12:02 AM local time
Magnitude: 7.8 on the Richter scale
Epicenter: Near Kaikoura, South Island
Depth: Approximately 15 km
Causes
Tectonic Setting:
New Zealand is situated on the boundary between the Pacific Plate and the Indo-Australian Plate

Geography – Natural Hazards 7

Case Study of a Tectonic Hazard in a Rich Part of the World: New Zealand (an HIC)

Primary Effects

Casualties:

2 people killed Dozens injured

Damage:

Significant damage to buildings and infrastructure in Kaikoura and surrounding areas. Several buildings in Wellington, the capital city, were also damaged.

Geographical Impact:

Landslides blocked roads and railways. Coastal uplift of up to 6 meters in some areas.

Secondary Effects Tsunami:

Generated a small tsunami with waves up to 2 metres high.

Prompted evacuation warnings along the east coast.

Economic Impact:

Estimated $2-3 billion in damages.

Impact on tourism and local economies, especially in Kaikoura.

Infrastructure:

Major highways and railway lines were severely damaged, disrupting transport and supply chains

Case Study of a Tectonic Hazard in a Rich Part of the World: New Zealand (an HIC)

Immediate Responses

Rapid response from local emergency services and the New Zealand Defence Force.
Helicopter evacuations for stranded residents and tourists in Kaikoura.
Emergency medical teams provided first aid and medical support.
Field hospitals established for immediate care.
Temporary shelters set up for those displaced by the earthquake and landslides.
Distribution of essential supplies like food, water, and blankets.

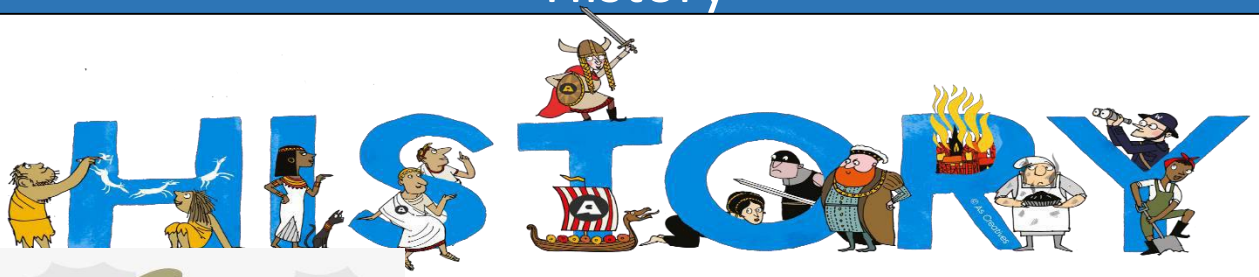
Long-Term Responses

Government-funded rebuilding of infrastructure, homes, and businesses.
Repair and upgrade of the transportation network, including highways and railways.
Financial support packages for affected businesses and communities.
Initiatives to boost tourism in the affected regions once safety was assured. Enhanced building codes to improve earthquake resilience.
Public education campaigns on earthquake safety and preparedness.

Geography – Natural Hazards - Questions

Questions	Your answers
What are the three main types of plate boundaries? Describe what happens at each one	
What is a volcano, and how is it formed?	
List 3 primary effects of the 2015 Nepal earthquake	1. 2. 3.
List 3 secondary effects of the 2016 New Zealand earthquake	1. 2. 3.
List 3 immediate responses to the 2015 Nepal earthquake	1. 2. 3.
List 3 long-term responses to the 2016 New Zealand earthquake	1. 2. 3.
Why were the effects in Nepal much worse than the effects in New Zealand? Explain your answer in detail.	

History



The Events of World War Two

Developing our understanding of comparison questions.

Renaissance Medicine

History. 1 : The Events of World War Two

Key Words and meanings

Air-raid	An attack by enemy planes dropping bombs.
Allies	Countries (including Britain, France, the USSR and the USA) who fought the Axis Powers.
Atomic bomb	A powerful weapon that could destroy a city. First used by the USA on the Japanese in 1945.
Axis Powers	Germany, Japan, Italy and other countries that fought against the Allies.
Blackout	A wartime ban on streetlights and other lights at night, to reduce the risk of bombing.
Blitz	A prolonged period of German air raids on Britain. From the German 'blitzkrieg' which means 'lightning war.'
Concentration Camps	Prisons where Jewish people and other prisoners were held by the Nazis.
Evacuation	Moving people from dangerous areas to safer places e.g. from big cities to the countryside to avoid bombing.
Fascism	Rule by dictators with unlimited power through suppression of any opposition and strict control of society.
Genocide	The destruction of a whole people (usually an ethnic, racial, or religious group).
Propaganda	Information used to promote a political cause or point of view.
Invasion	When an army or country uses force to enter and take control of another country or area.
Liberated	Freed from enemy control.
Luftwaffe	The German air force during the war.

History. 2 : The Events of World War Two

Evacuation from Dunkirk, 26 May - 4 June 1940.

Operation Dynamo, the evacuation from Dunkirk, involved the rescue of more than 338,000 British and French soldiers from the beaches of Dunkirk. Churchill described Operation Dynamo as a "Miracle of Deliverance." In reality, the British and French army had been completely beaten by the Germans in a matter of a couple of weeks and forced into a humiliating evacuation.

The Battle of Britain, July 1940-September 1940

The Battle of Britain was the German attempt to destroy the British airforce, [the RAF], to clear the way for the invasion of Britain, code-named Operation Sealion.

Unrestricted Submarine Warfare

Britain depended on imports from abroad to feed its people and from the start of World War Two, the German U-boats operated a policy of "Unrestricted Submarine Warfare" during the Battle of the Atlantic. The Germans wanted to sink all the supply ships on their way to Britain, to try to starve Britain in submission.

The Blitz, September 1940-June 1941

This was the night-time bombing of the British cities, by the German airforce, the Luftwaffe. The Nazis wanted to break the morale of the British people, so that they would want to make peace terms with Germany. It began with London, which was bombed every night for 57 nights from 7th September. Other British cities were also bombed,. By the end of the Blitz there were 50,000 civilians dead, 139,000 injured and over 1 million homes were destroyed.

The War on the Homefront:

(i) Evacuation

Britain had to organize very carefully to fight Word War Two. More than one million children were evacuated from the towns and cities. They were dropped off at stations in the countryside. It was compulsory to take an evacuee if you had space. The experience of the children varied. Some were abused but some were given a better life.

ii) The Blackout

To stop the Luftwaffe from seeing where to bomb, there was a strict blackout. It was illegal to show any lights in the dark. Air raid wardens ensured that everyone obeyed the black out.

(iii) Rationing

Rationing was introduced so that there was enough food for and to stop shop keepers putting up their prices. Everyone had a ration book and could buy the same amount of food. Clothes were also rationed. The rich bought extra food on the black market, but this was illegal.

(iv) Conscription

This was a compulsory call up to the armed forces. All men between 18 and 50 were conscripted unless they were too ill to fight or did an important job, e.g. running a farm. Women were also conscripted for war work, in the female branches of the armed services or as land girls or in the armaments factories.

The bombing of Pearl Harbor

On Sunday 7th December 1941 the Japanese airforce bombed the American navy which was based at Pearl Harbor in Hawaii. The attack **crippled or destroyed nearly 20 American ships and more than 300 airplanes**. 2,403 sailors, soldiers and civilians were killed and about 1,000 people were wounded. The surprise attack on Pearl Harbor brought the USA into the war.

The D-Day Landings

This was the landing of US and British troops in France, to start the invasion of Europe and drive Nazi Germany out. 156,000 Allied troops landed by sea and air on five beaches in Normandy: Juno/Sword/Gold/Omaha and Utah. D-Day would ultimately lead to the defeat Nazi Germany. The planning for D-Day was massive and it included the Mulberry Harbors and the Pluto Pipeline.

Was it wrong to drop the Atomic Bombs on Hiroshima and Nagasaki?

In 1945 President Truman argued that if the allies had to invade all of the Japanese islands, to end World War Two, it could cost the lives of half a million soldiers. Truman believed that if thousands of American lives were lost and later people realized that he could have used an atomic weapon, that there would be great anger in America. Many experts at the time believed that Japan would never surrender and that all the people of Japan would fight to the death, to defend their country. There was also anger in America at the Bombing of Pearl Harbor and the treatment of the allied prisoners of war and civilians prisoners.

On the other hand, the dropping of the bombs caused appalling death and suffering. People were literally melted by the blast and thousands who survived had horrific burns and died later from radiation poisoning. There are still babies being born with birth defects due to the radiation. It was a horrific weapon to use and many historians argue that the Japanese high command should have been shown a test explosion. It is also argued that Japan was on the verge of surrender and should have been given more time. It is also difficult to justify the dropping of the second bomb, before the Japanese had time to surrender.

History. 4 : Medieval Medicine

c1250–c1500: Medicine in medieval England

What do we need to know about Medieval Medicine?

1 Ideas about the cause of disease and illness	● Supernatural and religious explanations of the cause of disease. ● Rational explanations: the Theory of the Four Humours and the miasma theory; the continuing influence in England of Hippocrates and Galen
2 Approaches to prevention and treatment	●Approaches to prevention and treatment and their connection with ideas about disease and illness: religious actions, bloodletting and purging, purifying the air, and the use of remedies. ●New and traditional approaches to hospital care in the thirteenth century. The role of the physician, apothecary and barber surgeon in treatment and care provided within the community and in hospitals, c1250–1500
3 Case study	●Dealing with the Black Death, 1348–49; approaches to treatment and attempts to prevent its spread

Overview:
Medieval people did not understand science. They believed in God, the most important force in their world and the reasons for everything, including sickness & disease. They also had supernatural beliefs, in evil spirits, witches and the devil. There were also the theory of the four humours and the belief in miasma as a cause of sickness.

Key words:
Diagnosis – why people get sick
Prevention – trying to stop sickness
Treatment – trying to cure sickness
Supernatural – Superstition.
Religious – Relating to God
Purging – excess humours

The Power of the Church in the Middle Ages
The Medieval Church was all powerful. Very few could read and only the rich got an education. Priests were all powerful in the villages. Most hospitals were run by the church and all universities.
Knowledge was controlled by the church. New ideas were frowned on.

History. 5 : Medieval Medicine

Medieval beliefs on the cause of disease		Medieval Preventions		The Black Death
1	RELIGIOUS God sends sickness/disease to punish sinners or to test the faith.	1	RELIGIOUS Prayer/lighting candles/mass/pilgrimage.	Bubonic plague that ravaged Europe. 1/3rd population died. Caused by fleas that infected black rats. Arrived in England in 1348.
2	SUPERNATURAL Sickness and disease is caused by witches, demons or evil spirits or the movement of the planets, (astrology).	2	SUPERNATURAL Wear a lucky charm, e.g. a rabbit's foot; buy a potion or magic spell.	Beliefs on the cause of the Black Death: God/evil spirits/witches/a miasma released from a volcano/a malign movement of the planets.
3	RATIONAL: Four Humours Theory Sickness and disease is caused by an imbalance in the humours.	3	RATIONAL: 4 Humours: Keep the humours in balance – Use a Regimen Sanitatis, cleanliness etc.	Preventions for Black Death: Carry flowers/herbs/sit by a fire to burn off the miasma. Flagellants whipped themselves.
4	RATIONAL: Miasma Theory Sickness and disease is caused by a foul miasma, (smell).	4	RATIONAL: Miasma Theory Keep the house clean and sweet smelling to avoid disease.	Treatments for Black Death: Burst the buboes with a poker/put a dead bird on the buboes/paint with treacle or excrement.

Medieval Diagnosis		Medieval Treatments	
1	RELIGIOUS Diagnosis through prayer/lighting candles/mass/pilgrimage.	1	RELIGIOUS Prayer/lighting candles/mass/pilgrimage.
2	SUPERNATURAL Diagnosis by casting a star chart.	2	SUPERNATUAL Magic spells and potions for the sick.
3	RATIONAL: Four Humours Theory Using urine charts to examine, smell and taste the urine to diagnose which humour is out of balance.	3	RATIONAL: Four Humours Theory Bleeding or purging, (using an emetic or laxative), theory of opposites.

Questions

History 6

Medieval Care-Givers

1	**Physicians** – trained at University, focused on 4 humours; no dissection allowed. Some also used astrology and/or prayer.
2	**Barber Surgeons** – trained as apprentices, working under a Barber Surgeon, did blood-letting, minor surgery, pulled teeth and cut hair.
3	**Apothecaries** – sold herbs and herbal remedies in the towns. Wise women - in the villages did the same, sometimes the lady of the manor was skilled in herbs and herbal remedies. Some wise women dabbled in spells/magic.
4	**Women in the family** – they were the main caregivers in the middle ages. Most people never saw a professional healer. The main treatment would be the family herbal remedies.

Medieval Hospitals

Run by the church. No doctors. Some monks/nuns skilled herbalists. Main treatment = prayer, food & rest for the old, pilgrims and travellers. Pregnant women and the infectious were not admitted.

Retrieval Practice

1. What did medieval people believe about the cause of disease and illness?
2. Why the Roman Catholic Church so important for medieval medicine?
3. What did the medieval church believe about new ideas in medicine?
4. Whose theories were supported by the Roman Catholic Church and why?
5. What was the theory of the Four Humours?
6. What was the theory of Opposites?
7. What were the supernatural/magical ideas about disease?
8. How did medieval people try to prevent disease?
9. How did medieval people try to diagnose disease?
10. How did medieval people try to treat/cure disease?
12. Who were the medical care-givers in the middle ages and how were they trained/
13. What were medieval hospitals like?
14. What was the Black Death?
15. Why did so many people die during the Black Death?

Year 9 Knowledge Organiser 3: Renaissance Medicine

c1500–c1700: Medicine in Renaissance England

What do we need to know about Medieval Medicine?

1 Ideas about the cause of disease and illness	● Continuity and change in explanations of the cause of disease and illness. ●A scientific approach, including the work of Thomas Sydenham in improving diagnosis. ●The influence of the printing press and the work of the Royal Society on the transmission of ideas.
2 Approaches to prevention and treatment	●Continuity in approaches to prevention, treatment and care in the community and in hospitals. ●Change in care and treatment; improvements in medical training and the influence in England of the work of Vesalius.
3 Case study	●Key individual: William Harvey and the discovery of the circulation of the blood. ●Dealing with the Great Plague in London (1665): approaches to treatment and attempts to prevent its spread.

Key Terms:

Renaissance – rebirth of learning.

The Ancient World – the ancient civilisations of Greece and Rome.

Humanism – new attitude in learning that said God was not responsible for everything and encouraged people to investigate the natural world.

Dissection - cutting open the human body to study its anatomy (structure).

Physiology – how the body works. Eg; circulation.

The Reformation – when a new protestant movement developed to challenge the Roman Catholics; the Protestant Church replaced the Catholic Church in some parts of Europe. This led to the declining influence of the Church in many areas.

Alchemy – an early form of Chemistry Iatrochemistry -Medical chemistry

The New World – the Americas which were discovered during the renaissance.

Overview of Renaissance Medicine:

The renaissance was a period of scientific discovery and great advances in knowledge about anatomy and how the body works. **The Church had less influence* over education and fewer people believed that God and sin were responsible for disease. **Individuals like Vesalius, Paracelsus, Sydenham and Harvey* were prepared to challenge old ideas and make new discoveries. By the end of the 1600s most physicians no longer believed the Four Humours. It was accepted by doctors that disease came from outside the body.

**Institutions like the Royal Society* encouraged scientific thinking and experimentation and the spread of new ideas was speeded up by the printing.

BUT …there was very little progress in treatment of the sick as the true cause of disease was still not known.

Miasma was still the most commonly held belief on the cause of disease and even in 1700 some people still believed in the Four Humours, even though it had been discredited by scientists and doctors. Treatments were still based on the four humours, with bleeding and purging used because no new ones were developed. The response to the Great Plague in 1665 was different to the response to the Black Death in 1348 but it was no more effective.

Key Individuals in Renaissance Medicine:

Vesalius – professor of surgery at Padua University. Performed his own dissections. Corrected 300+ mistakes of Galen's. Revolutionised the teaching of medicine; encouraged medical students to do their own anatomy and research. After him anatomy became a cornerstone of medical teaching. Inspired others such as Harvey.

THE KEYPOINT TO UNDERSTAND IS THAT A LOT OF KNOWLEDGE WAS DISCOVERED IN MEDICINE DURING THE PERIOD OF THE RENAISSANCE, BUT IT DID NOT LEAD TO NEW PREVENTIONS OR TREATMENTS.

Thomas Sydenham The 'English Hippocrates' - insisted that doctors should observe patients carefully not rely on books. He said - disease came from outside the body; each disease had a separate cause; disease could be categorized into groups. This meant did not come from within the body as the Theory of 4 Humours said and every disease had its own cure.

van Leeuwenhoek – observed what he called '**animalcules**' or "little animals" under the microscope – first record of bacteria **BUT THEIR ROLE IN CAUSING DISEASE WAS NOT UNDERSTOOD.**

William Harvey – discovered that blood circulates around the body, not continuously made and used up, as Galen said. Harvey's work. Showed that because there was only a fixed amount of blood in the body the Theory of the 4 Humours and treatments like bleeding must be wrong.

History - Questions

Retrieval Practice

1. What was medicine like in the early renaissance period from 1500?
2. How did medicine change in the later renaissance?
3. What did the Protestant Reformation lead to?
4. How did the invention of printing impact on medicine?
5. What is 'humanism?'
6. Why was printing so important for medicine?
7. What new ideas were there in medicine during the renaissance?
8. How did ideas on the cause of disease change?
9. Why was the royal society important?
10. What changed and what stayed the same in prevention of disease?
11. What changed and what stayed the same in treatment of disease?
12. How did medical care change?
13. Why was Vesalius so important for medicine?
14. Why was Harvey so important for medicine?
15. What was the contribution of Sydenham to medicine?
16. Why was the Great Plague so serious?

Maths- Straight Line Graphs

Year 9 Knowledge Organiser

STRAIGHT LINE GRAPHS

Straight line graphs

The general format of a linear graph is

$$y = mx + c$$

where m is the **gradient** and c is the **y intercept**.

The equation of a linear graph can contain an x term, y term and a number.

Some examples include : $y = x$, $x = 2$, $y = 5$

$y = 5x + 6$, $y + x = 12$, $2x - 3y = 12$

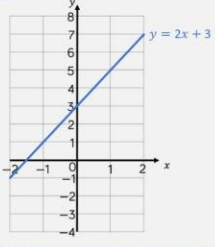
Plotting linear graphs

To plot a linear graph we would use a table of values:

For example $y = 2x + 3$ (to calculate y, multiply x by 3 and add 1)

x	-2	-1	0	1	2
y	-1	1	3	5	7

We use each pair as a co-ordinate (-2,-1)



Gradient

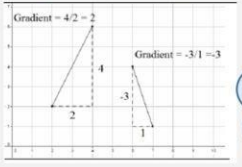
The gradient of a line is how **steep** it is.

$$Gradient = \frac{change\ in\ y}{change\ in\ x}$$ sometimes remembered as $\frac{Rise}{Run}$

Positive gradients

Negative gradients

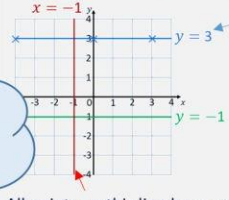
The gradient can be positive or negative.



Gradient, intercept, parallel, coordinate, linear, reciprocal, perpendicular

Lines parallel to the axes:

All points on this line have y coordinates of 3

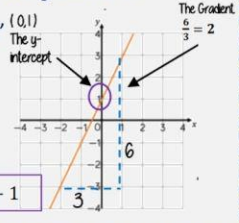


All points on this line have an x coordinate of -1

Equation of a straight line

Use these 3 easy steps to find the equation from a graph.

1. Use any two points to find the gradient 'm'
2. Read off the y intercept, 'c'
3. Write in the general format $y = mx + c$



$y = 2x + 1$

Parallel lines

If two lines are parallel, then they will have the same gradient. The value of m will be the same for both lines. If you are unsure what m is, make sure you rearrange into the form $y = mx + c$

Perpendicular lines

If two lines are perpendicular, then the products of their gradients will always be -1.

The gradient of one line will be the negative reciprocal of the gradient of the other line.

Maths- Real life graphs

Real life graphs

A plumber charges a £25 callout fee and then £12.50 for every hour. Complete the table of values to show the cost of hiring the plumber.

Time (h)	0	1	2	3	8
Cost (£)	£25				£125

The y intercept shows the minimum charge and the gradient represents the price per hour.

For this graph it would be $C = 12.5h + 25$

Direct Proportion graphs

To represent direct proportion the graph must start at the origin.

Example: A box of pens costs £2.30. Complete the table of values to show the cost of buying boxes of pens.

Boxes	0	1	2	3	8
Cost (£)		£2.30			

The gradient represents the price per pen.

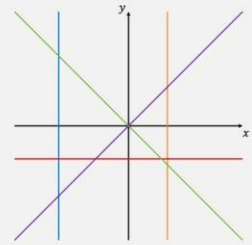
For this graph the equation would be $C = 2.3B$

Some questions for you to try:

Here are the equations of 6 lines.

- $y = x$
- $y = -2$
- $y = -x$
- $x = 3$
- $y = 5$
- $x = -5$

Five of the lines have been drawn on the grid.



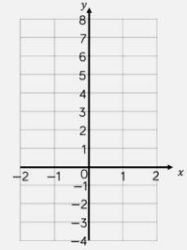
Label each line and explain how you know.

Sketch the graph of the sixth line.

Complete the table of values for $y = 3x - 1$

x	−2	−1	0	1	2
y					

On the grid, draw the graph of $y = 3x - 1$ for values of x from −2 to 2



Write down the equation of three lines that are parallel to $y = 4x - 2$.

Maths- Forming and solving equations

Solving equations with brackets

Solve

$3(2x + 4) = 30$ **** Expand the brackets ****

$6x + 12 = 30$

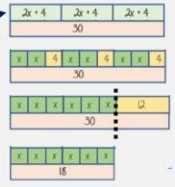
$-12 \quad -12$

$6x = 18$

$\div 6 \quad \div 6$

$x = 3$

A visual to help



Solving equations with unknowns on both sides

Solve

$4x + 5 = 3x + 24$ ****Smallest number of x's****

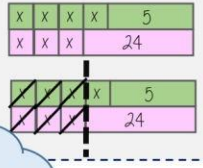
$-3x \quad -3x$

$x + 5 = 24$

$-5 \quad -5$

$x = 19$

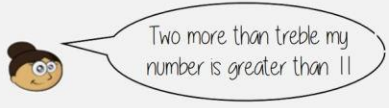
A visual to help



Equation, inequality, variable, rearrange, inverse operation, substitute, solve

Forming and solving inequalities

Solving inequalities is the same method as solving an equation.



Find the possible range of values

Form an inequality:

$3x + 2 > 11$

$-2 \quad -2$

$3x > 9$

$\div 3 \quad \div 3$

$x > 3$

Solving inequalities with unknowns on both sides

$5(x + 4) < 3(x + 2)$

$5x + 20 < 3x + 6$

$2x + 20 < 6$

$2x < -14$

$x < -7$

Check it!

$5(-8 + 4) < 3(-8 + 2)$

$5(-4) < 3(-6)$

$-20 < -18$

✓ -20 IS smaller than -18

Year 9 Knowledge Organiser

FORMING AND SOLVING EQUATIONS

Inequalities with negatives

Method 1 : Make x positive first

$2 - 3x > 17$

$+3x \quad +3x$

$2 > 17 + 3x$

$-17 \quad -17$

$-15 > 3x$

$\div 3 \quad \div 3$

$-5 > x$

✓ CHECK IT! $2 - 3(-6) = 20$ TRUE/ CORRECT

This means x is less than -5.

Method 2 : Keep the negative x

$2 - 3x > 17$

$-2 \quad -2$

$-3x > 15$

$\div -3 \quad \div -3$

$x < -5$

Notice that when we divide by a negative you need to reverse the inequality.

Maths- Rearranging Formulae

Rearranging Formulae

One step

Rearrange to make b the subject

$a = b + c$

-c -c

$a - c = b$

Using inverse operations will help you to rearrange a formula

Language of rearranging...

Make... the subject

Change the subject

Rearrange

Two step

In an equation (find x)

$4x - 3 = 9$

$+3 \quad +3$

$4x = 12$

$\div 4 \quad \div 4$

$x = 3$

In a formula (make x the subject)

$xy - s = a$

$+s \quad +s$

$xy = a + s$

$\div y \quad \div y$

$x = \frac{a+s}{y}$

The steps are the same for solving and rearranging

Some questions for you to try:

Fill in the blanks.

$20 \geq 6 - 5x$

$+5x \quad +5x$

$5x + 20 \geq 6$

-20

$5x \geq -14$

$x \geq$ ☐

$-3x < 16$

☐ ☐

$0 < 16 + 3x$

☐ ☐

$< 3x$

☐ ☐

☐ $< x$

Which of these formulae have A as the subject?

$p = \frac{F}{A}$ $A = bh$ $A = \frac{1}{2}bh$ $V = Ax$

Here is an inequality: $-10 < -8$

Is the inequality still true if:

- 2 is added to both sides?
- Both sides are multiplied by 2?
- 2 is subtracted from both sides?
- Both sides are multiplied by -2?
- Both sides are divided by -2?

Which inequality is the same as $x > 5$?

$-x > -5$ $-x < -5$

Maths- Testing Conjectures

The language

Conjecture – a pattern that is noticed for many cases

Counter example – an example to show a conjecture isn't true.

Always, Sometimes, Never true

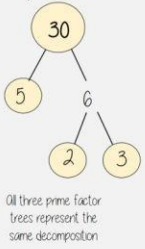
Always – every value supports the statement

Sometimes – examples show that the statement can be true but counter examples show that it is false

Never – no example supports the statement

Factors, multiples and primes

Multiplication part-whole models



All three prime factor trees represent the same decomposition

HCF – Highest common factor

HCF of 18 and 30

18: 1, 2, 3, 6, 9, 18

30: 1, 2, 3, 5, 6, 10, 15, 30

Common factors are factors two or more numbers share

LCM – Lowest common multiple

LCM of 9 and 12

9: 9, 18, 27, 36, 45, 54

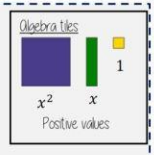
12: 12, 24, 36, 48, 60

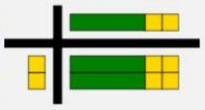
Common multiples are multiples two or more numbers share

Expanding Binomials

Remember: $2(x+2) \equiv 2x+4$

A visual representation

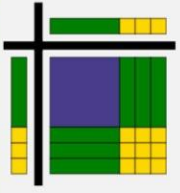




Algebra tiles can represent a binomial expansion
Has two terms

Expanding a pair of binomials

$(x+3)(x+3) \equiv x^2+6x+9$



This is a quadratic
It has four terms which simplified to three terms

You may have explored different methods to expand two brackets so check your maths book to help out if needed.

Some questions for you to try:

Expand:

a) $(x+4)(x+3)$

b) $(x+3)(x+7)$

Factor, multiple, prime, expand, binomial, conjecture, counter example

Year 9 Knowledge Organiser

TESTING CONJECTURES

Some questions for you to think about

Are the statements on the cards always, sometimes or never true?

If always true or never true, can you explain or prove why?

If sometimes true, give examples of when and when not.

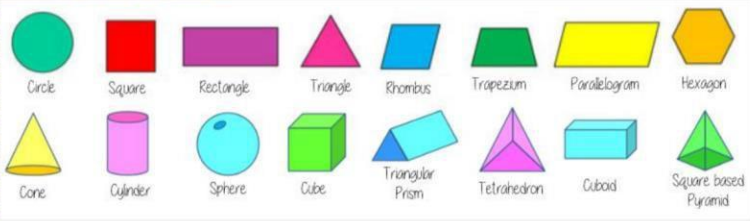
- Multiples of 3 are also multiples of 6
- Multiples of 6 are also multiples of 3
- Factors of 6 are also factors of 60
- Square numbers have an odd number of factors
- Cube numbers have an even number of factors
- The sum of two odd numbers is odd
- Multiples of 5 are odd
- The square of a negative number is positive

Are these conjectures always, sometimes or never true?

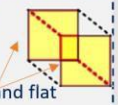
- The LCM of two numbers is equal to the product of the numbers
- The squares of prime numbers have exactly three factors
- If n is odd, then $n+3$ is even
- If p is prime, then $p-1$ is even
- $(n+1)$ multiplied by $(n-1)$ is one less than n^2

Maths- 3D Shapes

Name 2D and 3D shapes



Recognise prisms



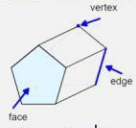
A solid object with two identical ends and flat sides.

The cross section will also be identical to the end faces

Year 9 Knowledge Organiser

3D SHAPES

Faces, Edges and Vertices



Face: A flat side of a 3D shape

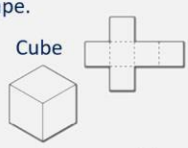
Edge: Where two faces meet

Vertex (single): Corner where two or more edges meet.

Recognising Nets

Nets are a 2D pattern that can be folded to make a 3D shape.

Cube



Square based pyramid

Cylinder

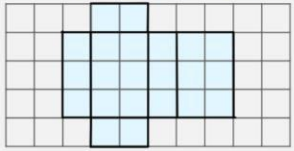
Triangular prism

Nets can be drawn more accurately using cm square grids

This would be a cuboid

3cm x 1cm x 2cm

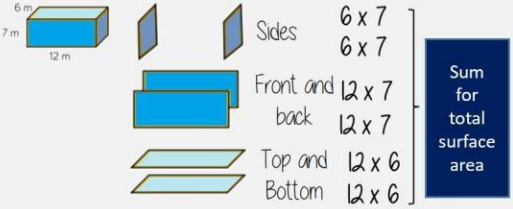
Can you visualise it?



Surface Area

The surface area of a 3D shape is the sum of the area of the individual faces.

A net can help us to visualise all the different areas we need to find.



Be sure to double check the shape of the faces so that you can find the area correctly

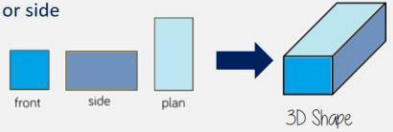
This shape includes finding the area of triangles for example

Plans and Elevations

This is a representation of a 3D object in 2D.

Plan – view from above

Front and side elevation – view from the front or side



Surface area of a cylinder

The area of the circle can be found by doing $\pi \times r^2$

The width of this face is the same as the height and the length is the circumference so we do π x diameter x height

Total Surface Area = $2\pi r^2 + \pi dh$

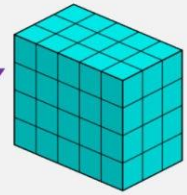
Maths- 3D Shapes - Questions

Volume

Volume is the amount of 3D space an object occupies. (Capacity for liquids)

Sometimes it can be calculated by counting the number of cubes that fit inside the shape.

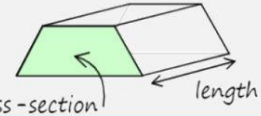
Volume = 60cm³



Volume of a Prism

****Double check you understand the definition of a prism****

The volume of a prism is
cross-section area × length



A cylinder shares the same properties as a prism but isn't one due to it not having flat surfaces. However, we can apply the same rule to calculate the volume.
$V = \pi r^2 h$

Volume of other shapes

You will go onto look at volumes of other 3D shapes including pyramids, cones and spheres. Could you do some research to find out the information you need to calculate the volume of these shapes?

A reminder for units

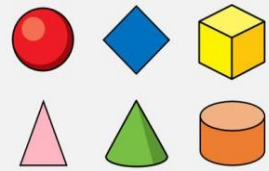
Area: square units e.g. cm²

Volume: cube units e.g. m³

2D, 3D, face, edge, vertex, cross-section, plan, elevation

Some questions for you to try:

Match each shape to its name.



Circle	Cone
Triangle	Pyramid
Cuboid	Square
Cube	Cylinder

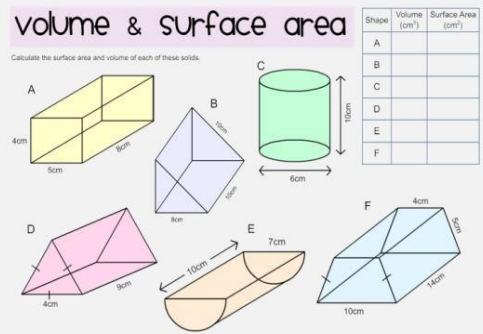
Some of the names do not have a matching picture.
Draw a sketch of each shape that does not have a match.

Draw the net of a 3 × 3 cm cube.

Compare it with a partner, did you both draw the same net?

How many different nets of a cube are possible?

volume & surface area



Maths- Constructions and Congruency

Scale drawing

A picture of a car is drawn with a scale of 1:30

This means every 1cm on my image is 30 cm in real life.

Image: Real life

x15 ← 1: 30 → x15

15

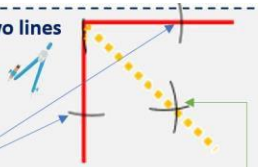
30 x 15 = 450cm

Real life length 4.5m

Locus of a distance from two lines

Also an **angle bisector**

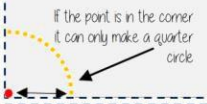
This cuts the angle in half

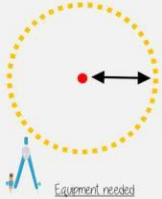


1. From the angle vertex draw two arcs that cut the lines forming the angle.
2. Keep the compass the same size and use the new arcs as centres to draw intersecting arcs in the middle.
3. Join the vertex to the intersection (yellow line) This is your answer

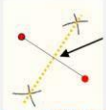
Locus of a distance from a point

All points are equidistant (the same distance) from the fixed point.





Locus equidistant from two points

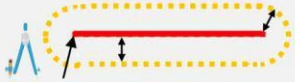


Also a **perpendicular bisector** because if the points are joined, this new line intersects it at 90°

1. From each point draw two arcs that intersect. (Make sure your compass stays the same width)
2. Join the intersections with a ruler (yellow line). All points on this line are equidistant from the two original points.

Locus of a distance from a straight line

All points are equidistant from the line

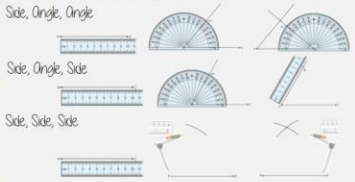


The ends of the line are fixed points (as above)

Equipment needed

The line is straight so a ruler is used for the straight lines parallel to your original line.

Constructing triangles



Locus (loci), equidistant, perpendicular, arc, bisector, congruent

Year 9 Knowledge Organiser

CONSTRUCTIONS AND CONGRUENCY

Construct a perpendicular from a point

1. Use a compass and draw an arc that cuts the line. Use the point to place the compass

2. Keep the compass the same distance and now use your new points to make interconnecting arcs. Connecting these arcs makes the bisector.

If p is a point on the line the steps are the same.

Maths- Constructions and Congruency - Questions

Congruent figures

Congruent figures are identical in size and shape.

They can be reflections or rotations of each other.

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

Congruent triangles

To prove that two triangles are congruent, we need to know that they meet one of these conditions:

SSS – Side, side, side

All three sides on the triangle are the same size

SAS – Side, angle, side

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

ASA – Angle, side, angle

Two angles and the side connecting them are equal

RHS – Right angle, hypotenuse, side

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

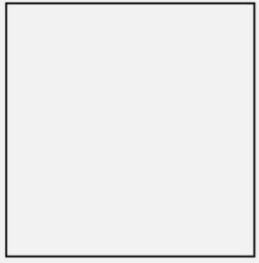
Some questions for you to try:

A model boat has length 7 cm.

The scale of the model is 1 : 80

Work out the length of the real boat, giving your answer in metres.

Use a ruler, pencil and pair of compasses to draw the locus of the points 2 cm away from this square.



Maths- Numbers

Types of number

Integer – a whole number (can be positive or negative)

Rational – a number that can be made by dividing two integers

Irrational – a number that cannot be made by dividing two integers e.g. $\sqrt{2}$ *or* π

Real – Any number. Includes rational and irrational numbers. The square root of a negative number is not a real number and cannot be found.

HCF – Highest common factor

1 is a common factor of all numbers

Common factors are factors two or more numbers share

HCF of 18 and 30

18: 1, 2, 3, 6, 9, 18

30: 1, 2, 3, 5, 6, 10, 15, 30

HCF = 6

LCM – Lowest common multiple

LCM of 9 and 12

9: 9, 18, 27, 36, 45, 54

12: 12, 24, 36, 48, 60

LCM = 36

The first time their multiples match

Directed number

= −1

= 1

Addition

2 + - 4 = -2

Zero pair (-1 + 1 = 0)

Two "−1" left = -2

In general: + − = −

Subtraction

= 2

Representation for calculation

"Subtract" – means take away or remove

In general: − − = +

2 − - 1 = 3

Take away one

Start with the representation of 2

= 3

Multiplication

The act of making counters into their negative is turning them over

-2 x -3 = 6

Divisions are the inverse operation

If you are using a calculator then putting brackets around the negatives helps to remove calculation errors.

E.g. a=5 and b=-4

Find the value of 2a-b

2(5)-(-4) = 10 + 4 = 14

Year 9 Knowledge Organiser

NUMBERS

Addition and subtraction of fractions

$\frac{4}{5} - \frac{2}{3}$

$\frac{12}{15} - \frac{10}{15} = \frac{2}{15}$

When we add or subtract we need to find a common multiple for both denominators

Multiplication of fractions

$\frac{3}{4} \times \frac{2}{3}$

Shade in 3 parts

Repeat it on this many rows

This many columns

This many rows

$\frac{3}{4} \times \frac{2}{3} = \frac{6}{12}$

Parts shaded

Total number of parts in the diagram

3

4

Division of fractions – remember to use reciprocals

$\frac{2}{5} \div \frac{3}{4}$

$\frac{2}{5} \times \frac{4}{3}$

Multiplying by a reciprocal gives the same outcome

Represented

$= \frac{8}{15}$

KFC

Maths- Numbers - Questions

Standard Form

Any number between 1 and less than 10 → $A \times 10^n$ ← Any integer

Integer, rational, irrational, product, multiples, factors,

Some examples

Adding

$6 \times 10^5 + 8 \times 10^5$

$= 600000 + 800000$

$= 1400000$

$= 1.4 \times 10^5$

Dividing

$(1.5 \times 10^5) \div (0.3 \times 10^3)$

$15 \div 0.3 \times 10^5 \div 10^3$

$= 5 \times 10^2$

Some questions for you to try:

For each card, find some possible pairs of values for a and b.

$a + b = \frac{3}{4}$ $\quad$ $a - b = \frac{3}{5}$ $\quad$ $a + b = 2\frac{1}{4}$

Can you find fractions a and b that have the same denominator?

Can you find fractions a and b that have the different denominators?

Can you find fractions a and b that are both improper?

Can you find integer values for a or b or both?

Some questions for you to try:

Work out the calculations shown on the cards

$2 + -5$ $\quad$ $2 - -5$ $\quad$ 2×-5 $\quad$ -2×-5

$-2 + -5$ $\quad$ $-2 - -5$ $\quad$ $2 \div -5$ $\quad$ $-2 \div -5$

Which of these numbers are integers?

18 $\quad$ 1.8 $\quad$ −1.8 $\quad$ −1 $\quad$ −18 $\quad$ 0

$a = 6 \qquad b = 4 \qquad c = -2$

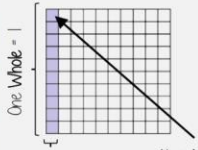
- How many expressions can you find using a, b and c that have a value of 12?
- How many expressions can you find using a, b and c that have a value of -20?
- What expression using a, b and c has the greatest value?
- What expression using a, b and c has the least value?

Maths- Using percentages

FDP Equivalence

Percentage

100% - a whole = 100 hundredths



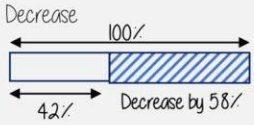
E.g. 34 % = $\frac{34}{100}$ = 0.34

We can look at simplifying the fraction so $\frac{34}{100} = \frac{17}{50}$

$\frac{10}{100} = \frac{1}{10} = 0.10$ One hundredth (one whole split into 100 equal parts)

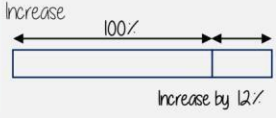
Percentage increase/decrease

When increasing or decreasing an amount by a percentage we can use a multiplier



100% - 58% = 42%

42 ÷ 100 = 0.42
0.42 is the multiplier to decrease a number by 58%



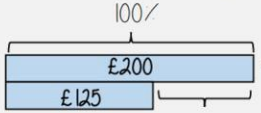
100% + 12% = 112%

112 ÷ 100 = 1.12
1.12 is the multiplier to increase a number by 12%

When **decreasing** the multiplier should be **less than one** and when **increasing** it should be **more than 1**

Percentage change

I bought a phone for £200 and a year later I sold it for £125. Work out the percentage loss.



All values of change compare to the ORIGINAL value

Percentage loss

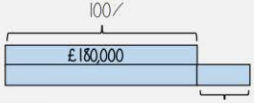
$\frac{75}{200} \times 100 = 37.5\%$

Percent, decimal, fraction, equivalent, reduce, growth, integer, invest, multiplier, profit

IN GENERAL

$$\frac{Difference\ in\ values}{Original\ value} \times 100$$

I bought a house for £180,000 and later sold it for £216,000. Calculate the percentage profit.



Money made (profit) → 36000

Original price → 180000

Percentage profit

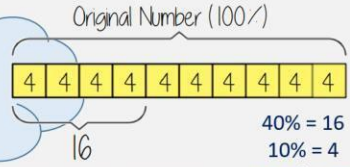
$\frac{36000}{180000} \times 100 = 20\%$

Year 9 Knowledge Organiser

USING PERCENTAGES

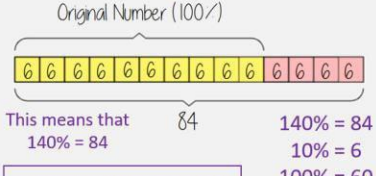
Reverse percentages

40% of my number is 16. What number am I thinking of?



The number I am thinking of is 40

The price of a jacket has been increased by 40% and now costs £84. What was the original price?



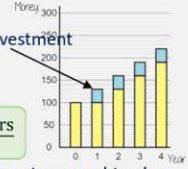
The original price was £60

When dealing with reverse percentages always try to scale down to 10% or 1% and scale back up to 100%

Maths- Maths & Money

Simple interest

This means that for each year of the investment the interest remains the same



IN GENERAL

$$\frac{\text{Principal amount} \times \text{Interest Rate} \times \text{Years}}{100}$$

The principal amount is the amount invested in the account e.g. £100 at 30% simple interest for 4 years:

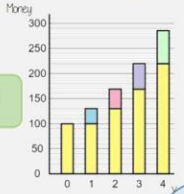
$$\frac{100 \times 30 \times 4}{100} = 120$$

OR Calculate 30% of 100 and multiply by 4 to calculate the total interest.

This account earned £120 interest and at the end of year 4, they would have £220 in total (this includes their original amount)

Compound interest

This means interest is added to the current value of investment at the end of each year so the next year's interest is greater.



IN GENERAL

$$\text{Principal amount} \times \text{Multiplier}^{\text{Years}}$$

E.g. Invest 100 at 30% compound interest for 4 years

$$100 \times 1.3^4 = 285.61$$

This account has £285.61 in total at the end of 4 years.

The total interest would be £185.61

Year 9 Knowledge Organiser

MATHS AND MONEY

Value added tax (VAT)

VAT is payable to the government by a business. In the UK VAT is 20% and added to items that are bought.

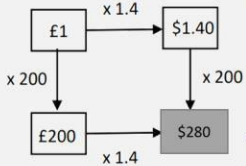
Essential items such as food do not include VAT

Credit, debit, balance, expense, deposit, multiplier, per annum, currency, unitary

Exchange rates

Converting between currencies requires an exchange rate. For example £1 = $1.40

When converting it can be useful to use estimates to check if our solution is reasonable



We would use inverse operations to reverse the exchange process e.g. in this case $ to £ ÷ 1.4

Common Currencies

UK	£	Pounds
United States of America	$	Dollars
Europe	€	Euros

Unit Pricing

4 Oranges	5 cupcakes
£1	£1.20

$4 = £1.00 \div 2$, $2 = £0.50 \div 2$, $1 = £0.25$

$5 = £1.20 \div 5$, $1 = £0.20$

Cost per Unit

Cupcakes are the best value as one item has the cheapest value

To calculate the cost per unit we would divide by the number of units. This allows us to find the cost of one.

There is a directly proportional relationship between the cost and the number of units.

Wages and taxes

Salaries fall into tax brackets which means they must pay tax each month. The amount is decided based on the annual salary of the individual.

These are the tax brackets in 2024. The salary is per annum.

Band	Taxable income	Tax rate
Personal Allowance	Up to £12,570	0%
Basic rate	£12,571 to £50,270	20%
Higher rate	£50,271 to £125,140	40%
Additional rate	over £125,140	45%

Maths- Percentages and Money- Questions

Some questions for you to try:

$$85\% = \frac{85}{100} = \frac{17}{20}$$ (÷ 5 above and ÷ 5 below)

Convert the percentages to fractions in their simplest form.

- 35%
- 62%
- 84%
- 19%
- $3\frac{1}{2}\%$

Which is the correct multiplier to increase a number by 4%?

1.4	0.4	1.04	0.04

Which is the correct multiplier to decrease a number by 4%?

96	9.6	0.96	0.096

Last year Seb paid £568 for his car insurance.
This year he has to pay £715 for his car insurance.
Work out the percentage increase in his car insurance.
Give your answer to 1 decimal place.

Match the multiplier with the correct percentage statement.

Increase by 20%	Increase by 100%	Increase by 12%
Increase by 2%	Increase by 1.2%	

1.012	1.02	2	1.2	1.12

TETRA-BANK	**BANK OF CLARITY**
3% compound interest for the first year 1% for each additional year.	1.7% compound interest per year.

Which bank will pay more interest on £3500 invested for 3 years?

A camera costs $400 in the United States.
The same camera costs £325 in the UK.
The exchange rate is £1 = $1.25
Is the camera cheaper in the United States or in the UK?

I converted £325 into $ by doing 325 × 1.25

I converted $400 into £ by doing 400 ÷ 1.25

Are both approaches correct? Explain why or why not.

Music – Year 9.1

Skill building

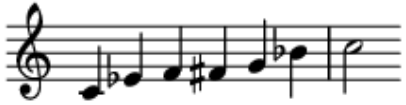
Musical genres/styles

Autumn term = Jazz/Blues

The 12-bar blues is a chord progression that lasts for 12 bars, it is one of the most popular and influential chord progressions.

12-bar blues chord sequence in C

C	C	C	C
F	F	C	C
G	F	C	C



Key words	Definition
Blues	Music of black American folk origin, usually following a 12-bar sequence.
Walking bass line	A series of notes that moves in step and creates a 'walking' feeling and sense of movement
Blues scale	A 6 note scale consisting of C, Eb, F, F#, G, Bb, C
Improvisation	When musicians perform something that has not been rehearsed or pre-prepared.
Chord	Two or more notes played at the same time
Virtuosic	When a musicians shows off their skill

Music – Year 9.2

Autumn term = Jazz/Blues

Skill building

Jazz music originated in New Orleans in the early 20th Century. Subgenres developed overtime and 'Jazz' developed from 'swing' and the 'big band' sound to subgenres such as; Bepop, cool jazz, jazz fusion.
One famous Jazz musician was Miles Davis. Miles Davis was a jazz trumpeter. He was a composer and band leader. He is seen as one of the most influential jazz musicians.

Key words	Definition
Scat	A vocal technique where the singer improvises using vocables instead of lyrics.
Vocables	A song that uses syllables instead of words with meaning.
Swung	Off-beat rhythms which gives the music a bouncy 'swung' feel
Sub-genre	A musical genre that takes influence from a certain genre whilst having new characteristics.

Musical numbers may include: **Solo:** a song for one singer.
Duet: a song for two singers.
Trio: a song for three singers.
Ensemble: a song sung by a small group. **Chorus:** a large group (usually the full company/cast).
Recitative: a vocal style that imitates the rhythms and accents of speech. **Overture:** an orchestral introduction to the show, which usually uses tunes from the show. The orchestra/band is used to accompany the voices and to underscore.

Learning to appraise music; DR PAT SMITH

D=	Dynamics	S= Structure
R=	Rhythm	M= Melody
P=	Pitch	I= Instruments
A=	Articulation	T=Texture/tonality
T=	Tempo	H= Harmony

Music – Questions

Fill in the blank chord chart with the correct chords for the 12-bar blues in C.

Are the following statements true or false?

1) Jazz music originated in Africa.
2) A famous jazz trumpeter was Miles Davis.
3) The blues scale is a 6 note scale.
4) Improvisation is when a musician shows off their skill
5) The 12 bar blues is a popular blues chord progression.

Name songs that are influenced by the 12-bar blues and say how.

Complete to make the following acronym correct.

D = Dynamics
R = Rhythm
P = Pitch A =
T =

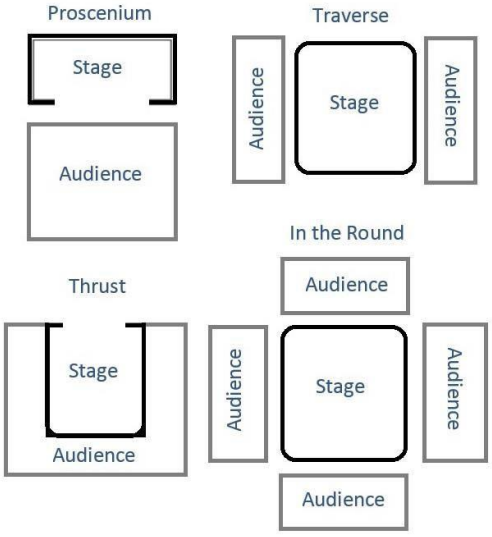
M = Melody
I = Instruments
T = H =

Key word	Definition
Soloist	
Ensemble	
Trio	
Duet	
Chorus	
Recitative	

Name a famous Jazz musician, what do you know about this musician?

Where did the blues originate and how?

Upstage Right	Upstage Centre	Upstage Left
Centre stage Right	Centre stage	Centre stage Left
Downstage Right	Downstage Centre	Downstage Left



This scheme will look at the **technical side to theatre**. Focusing on **set, sound, lighting, costume, roles and responsibilities** within theatre.

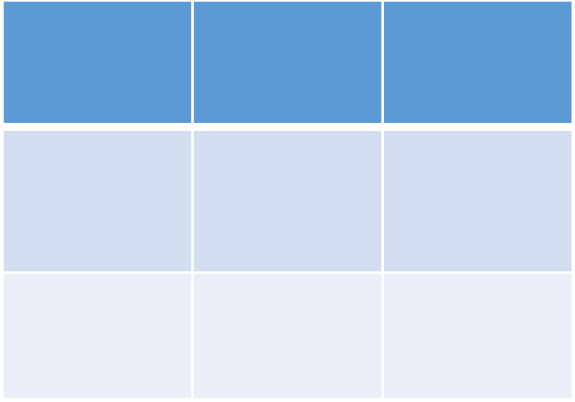
Key words	Definitions
Stage configurations	The ways the audience and stage are set up
Lantern	The technical name for the lights
Technician	The people who work and program the lights or sound
Designer	The people who sketch out ideas for the costumes, light or set
Director	The person who organises the overall creative vision of the show

Performing Arts Year 9.2

Question	Your answer
What is a lantern?	
What things might a designer design?	
What are stage configurations ?	
Can you give three examples of stage configurations?	

Can you draw the three stage configuration you have listed above:

Can you fill in the stage positions:



Performing Arts Year 9.3

Further developing your **analytical** and your **evaluative skills** we will look at various musicals, looking **at design elements, actors performances, themes and issues** and practically **exploring extracts** from the musicals too.

Type of musical	Definitions
Book musical	Usually based on a pre existing story. These shows are then developed with songs interwoven into the story. Example – Wicked
Jukebox musical	A jukebox musical is made out of songs that have already been written. Example – We Will Rock You
Concept musical	A concept musical is one in which the overall storyline and featured songs are equally vital to the topic, metaphor, or concept. Example - Rent
Historical musical	These musicals look at a moment in history and explore the moment through song and dance. The styles of songs can match or contrast the era. Example – Les Miserable
Rock Pop Musical	In these musicals, the narration changes, but the music tells the majority of the story. Its status as a rock/pop musical is due to this. Example – Jesus Christ Superstar

Musicals must have: A clear storyline Songs Dance

Key skills as a performer within a musical:
Facial Expressions Projection
Body Language
Gestures Gait Rhythm
Audience awareness Diction
Communication Team work

Performing Arts Year 9.4

Job role	Responsibilities
Playwright	A Playwright often works in their own time writing plays which can then be published or taken on by a theatre company to perform.
Lyricist	A lyricist writes the words or lyrics to a song. They typically collaborate with a composer or songwriter who creates the music to accompany the lyrics
Stage manager	Organises the day to day running of a theatre company from rehearsals right through to performances and then post-show. They liaise and communicate with the full company and organise each team to ensure the smooth running of a production

The **themes** that are commonly explored in the drama include **love, betrayal, power, ambition, and family**. The **issues** may be things like **global warming, cost of living crisis, war** to name a few.

Traditionally musical theatre productions stage configuration is a proscenium arch where the audience are all facing the same direction. They are usually sat on tiered seating.

Performing Arts Year 9 - Questions

What type of musicals are these?

5 key skills you need as a performer:

What is the difference between themes and issues?

Can you list 3 roles within the theatre and an overview of what they do:

Traditionally musical theatre performances take place in a Proscenium Arch stage configuration. Can you describe this configuration.

Physical Education – Participation Policy

- It is expected that your child brings full kit and changes into it for every physical education lesson even when a note has been written to excuse them from active participation in the lesson.
- The reasons for this are that, in addition to performance, part of their assessment and curricular provision comprises several other factors. Including;
  - Understanding the health related components of physical education
  - Evaluating their own and others performance.
  - The role of the coach, referee or umpire etc.
  - Some students may still be able to participate in certain aspects of the lesson for example the warm up to maintain fitness and involvement of the lesson.
- In view of this your son/daughter, whilst possibly excused from active performance is expected to officiate, coach and organise, for example, warm up and cool down activities for the rest of the group.
- If your son/daughter arrives at the lesson without appropriate PE kit, we will provide kit from the supply we have in school.

I have read and understand the PE policy for participation

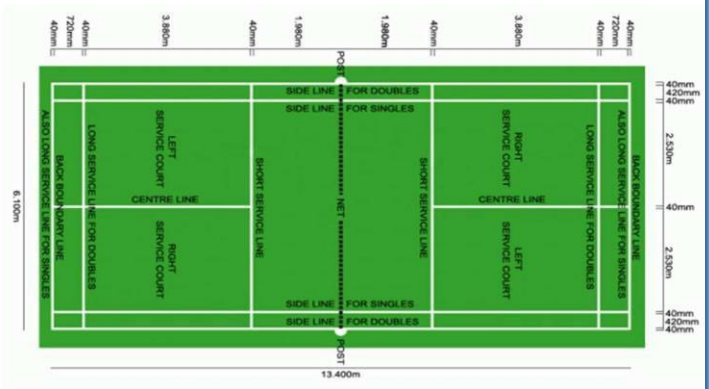
- Signed (Parent/Carer) _____
- Signed (Child) _____
- Date _____

Physical Education – Badminton

Key skills: READY POSITION – balanced position, side on, racket up and ready, on toes.
SERVING –There are several types of serve – short/backhand, long ,flick. A backhand serve should land close to the service line on your opponents side of the net. The racket head must start from below the waist.
UNDERARM CLEAR (long serve) **–** This shot is played high to the back of your opponents court. Start sideways on and use a whip action with the wrist to create power.
OVERHEAD CLEAR – Played to the back of your opponents' court and is a defensive shot. Start sideways on, racket up and behind you, focus on making contact with the shuttle in front of you.
DROP SHOT- a shot played with finesse to land the shuttle as close as possible to the net on your opponent's side.
SMASH SHOT – This is the main attacking shot in badminton. It is an overhead shot, hit in front of the body, that aims to get the shuttle down on the floor at a shar angle. The wrist needs to "snap" to get it down.
TACTICS - Hitting into space – moving partner aroun the court
Shot selection – selecting the right shot for the right situation
Targeting opponents weaknesses
Disguised shots – trying to make it look like y are going to play a particular shot but t pla different shot to fool an opponent.
Doubles play – role of players in doubles. Front/back formations or side to side.

Rules

Game starts with a diagonal serve- right hand side to
right hand side
Serve must land over the service line
Play to 21 points – but must win by 2 clear points.
A point is won every rally
Whoever wins the point serves next
When score is even, serve from right, when score is odd, serve from left
Court is long and thin for singles, short and wide
You cannot hit the net with your racket or bo



Key words
Grip and ready position
Drop shot
Rally Serve – backhand/sho rt, long, flick
Ready position
Overarm clear
Underarm clear
Smash
Disguised shot
Underarm clear
Scoring

Physical Education – Badminton questions

1. Name 4 pieces of Badminton equipment.

2. List the rules for serving. What's the difference between singles and doubles?

3. Name 3 components of fitness that would be useful for a badminton player.

4. List all the ways that you can win a point in Badminton.

5. Explain how to move an opponent around the court with shot selection.

6. Explain the difference in court dimensions between doubles and singles badminton.

Stretch and Challenge Task:
Watch some professional match play online. Score a game in lesson or by watching online.
Find out what happens when the wrong doubles player hits the serve. Who wins the point the server or returner?

Physical Education – Basketball

Key skills: Dribbling: Head up, spread fingers and fingertips, waist height.
Chest Pass: W grip, step, chest to chest, follow through, short distance. **Bounce Pass:** W grip, step, chest to chest, follow through, bounce before player, short distance. **Javelin Pass**: Sideways on, elevation, shoulder to shoulder, step, follow through, arch, long distance. **Pivoting, footwork and jump stop**: Landing on alternative feet- first foot to land is the static pivoting foot. Landing on simultaneous feet- either foot can become static pivoting foot/can be used at the end of a dribble or when receiving a pass.
On the move- release ball before third step.
Set shot: Knees bent, dominant foot slightly in front of other, strong hand at bottom, supporting hand on side, and elbow at 90 degrees.
Lay-up Strong hand at bottom, supporting hand on side, keep it high, right hand dribble, step right, jump left aim for top right hand corner of box, left hand dribble, step left, jump right, aim for top left corner of box. **Defending** Man to man- knees bent, back straight, head up, arms out, watch opponent's belly-button. **Attacking**: Dribble into space, screen defenders, dribble out wide and quick inward passes, drive towards ball to receive pass losing defender, overload zone defence.
Triple Threat Position: Knees bent, hands positioned on ball so ready to shoot, head up, can dribble, pass or shoot from here.

Rules

Played with two teams of five
Score by shooting through a hoop
A side line ball is taken from the opposite team who touched it last
Outside of the three point arc a basket is scores 3pts and inside scores 2pts
Once the offense has brought the ball across the mid-court line, they cannot go back across the line during possession
Personal fouls include hitting, pushing and holding
Fouling a shooter results in one, two or three free throws, worth 1pt each, depending on where and how they were fouled
Players cannot travel with the ball or double dribble
Players cannot hold the ball for longer than 5 seconds

Key Content:
Dribbling Passing
Man to man marking
Zone marking On the move marking

Physical Education – Basketball questions

1. Describe what ‘pivoting’ is?
2. What rule is broken when lifting a foot when pivoting?
3. If an attacker is dribbling and then fouled by an opponent how does the game restart?
4. How many point do you get for a successful jump shot inside the key?
5. When would a ‘javelin’ or a ‘shoulder’ pass be most effective in a game?
6. How many seconds can an attacking player stay inside the ‘key’ for?
7. Describe a defenders stance and body position when defending in a 1v1 situation?
8. When an attacking player is fouled in the act of shooting how many ‘free throws’ do they receive?
9. During a ‘free throw’ when can a defender attempt a rebound?
10. When attempting a lay-up shot which corner of the backboard should the attacker aim for?

Stretch and Challenge Task:

Watch a video of a NBL game, identify key players and their positions and write what they did well and what they could improve on. Also identify the difference between man to man marking, zone marking and on the move marking and write down the difference between them and when in a game they would be used.

Physical Education - Fitness

Key Skills:

Aerobic means "with oxygen and anaerobic means "without oxygen." **Aerobic Exercise:** This occurs when blood is carried through your vessels to deliver oxygen to the muscles to keep you moving, and you sustain the activity for more than just a few minutes.

Anaerobic Exercise: short, high intensity exercise. At the poir in time where the energy you are using does not allow the bo to create enough oxygen.

Training Methods:-

Interval -Athletes training with periods of work followed by periods of rest

Continuous -Training for a specific period of time with no rest

Fartlek -A combination of slow and fast running over a variety of distances and terrains

Cross -A mixture of training

Circuit -A number of exercises, set out at 'stations' to avoid exercising the same muscle group consecutively

Weight -Using progressive resistance, either in the form of actual weight

lifted or in terms of the number of times the weight is lifted

Flexibility – Either Ballistic; Static or PNF.

Plyometric – Involves jumping and immediately Jumping again.

Speed Training – Could include Hollow Sprints ; Acceleration and Interval Training

Key Content and Terms to learn: Endurance; Aerobic; strength; Flexibility; Agility; Balance; Coordination; Power; Reaction Time; Speed and Body Composition.

Physical Education – Fitness questions

1. Plan a suitable pulse raising activity and explain its benefits.
2. Name 3 lower and 3 upper body muscles
3. What is the difference between Aerobic and Anaerobic exercise and give an example of each.
4. Plan a circuit with 6 stations and include the working and the rest time.
5. How could we measure our heart rate? What units is it measured in and what is the heart

   transporting to the working muscles?
6. What is the difference between dynamic and static stretching? Name 3 of each stretch.

Stretch and Challenge Task:
Devise a Training Programme for a Specific Sport

Physical Education – Football

Key skills:Controlling the ball – using different parts of the body – this could be the feet or thigh. Remember to cushion the ball.
Passing – there are 3 types of passes. Side foot pass, driven pass with the laces and a lofted pass. Using the side of the foot allows you to pass accurately over a short distance, a driven pass allows you to pass the ball on the floor, but a greater distance. Finally, a lofted pass allows you to lift the ball in the air over players and change direction. Remember to keep your standing foot next to the ball when you make the pass.
Dribbling – dribbling allows you to move the ball quickly around the pitch using the inside and outside of your feet and keeping the ball close to your feet and your head up.
Turning with the ball and outwitting a defender – turning with the ball allows you to change direction using different techniques, such as dragging the ball back with the sole of your boot. Outwitting and opponent allows you to beat a defender using different techniques such as a step over.
Shooting – there are different types of shots that allows you to score goals. You instep can be used to control and place the ball into the goal. If you use your laces then this allows more power to be produced.
Heading – you can use an attacker header, a defensive header or a controlled header, which might be passing the ball back to someone with your head.
Attacking – keeping possession – making a number of passes allows your team to keep possession and advance up the field. Using the width is very important when attacking. It is important teams keep possession and play one and two touch to move the ball quickly. Also,'switch' the play using a lofted pass. **Defending** – players are normally marked man to man, but can be marked zonal from corners.
Tackling techniques – tackling, jockeying and forcing the player onto their weaker foot.

Strategies and Tactics:
Attacking – using the width is very important when attacking. It is important teams keep possession and play one and two touch to move the ball quickly. Also, another effective strategy is to 'switch' the play using a lofted pass.
To keep possession some teams may use the depth of the pitch to keep possession and build an attack.

Defending – players are normally marked man to man, but can be marked zonal from corners. It is also important that defenders keep a good line, which may allow them to play the opposition offside. This also means the defending team isn't too deep near their goal.

Key words Passing, dribbling, shooting, heading, attacking, defending, possession, width, depth, different formations, offside rule, 'switching' play

Physical Education – Football questions

1. Explain what a counter attack is.
2. Describe what 'man-to-man' marking involves.
3. What size football should be used at Under 14's (Y9) age category?
4. What does 'playing a high line' involve as a defensive unit?
5. Explain what a 'Cryuff' turn is and describe the body position when executing the turn.
6. Name 1 type of dribbling skill that can unbalance a defender allowing you to attack space and progress up the pitch.
7. When defending in a 1v1 situation why is it important for the defender to watch the ball at all times?
8. Describe a situation in a game where an 'overload' may take place when attacking up the field of play?
9. How should a defender position themselves when 'jockeying' in a 1v1 situation?
10. Explain what a 'high press' is when out of possession?

Stretch and Challenge Task:

1. Why is it important to move the ball quickly when keeping possession?
2. How can width be provided in different formations like 4-4-2, 4-3-3 or 53-2?
3. What is zonal marking?

Physical Education – Netball

Key skills:

Passing and receiving – different types of passes include chest pass, bounce pass, shoulder pass and overhead pass.

Attacking – getting free from an opponent in order to receive the ball. Includes the skills of sprinting, dodging and changing direction.

Shooting – With one hand under the ball and the other steadying it at the side, keep your eyes on the hoop, bend your knees and push the ball with the fingers.

Defending – Marking your opposite player both with and without the ball.

Footwork – You must land with a 1-2 landing or with 2 feet. You must then not move the landing foot. **Holding space** – trying to keep space in which to receive a pass. Especially useful in the circle.

POSITIONS

Goal Shooter (GS) – Can only play in their attacking goal third. Marks the GK.

Goal Attack (GA) – Plays in the goal third and centre third. Marks the GD.

Wing Attack (WA) – Plays in the centre third and their teams attacking third. Marks the WD.

Centre (C) Only player to be able to play in all 3 thirds. Marks C.

Wing Defence (WD) – Plays in centre third and their defending third. Marks the WA.

Goal Defence (GD) Plays in the centre third and their defending third.

Goal Keeper (GK) Can only lay in their defending goal third. Marks the GS

Rules

The game starts with a centre pass and the ball must be caught in the centre third. You must comply with the footwork rule e.g. a 1-2 landing.

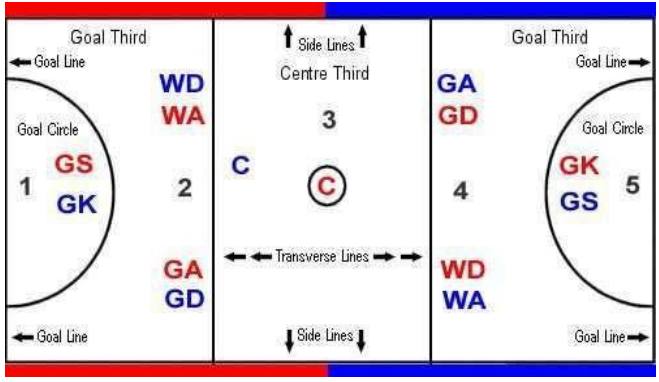
You only have 3 seconds to release the ball.

When defending you must be 1 metre away from the player.

There must be no contact with an opposing player.

Only GS and GA may score a goal.

You must stay in the correct area of the court for your position Teams take it in turns to take a centre pass. The ball must be touched in each third of the



Key words

Passing and receiving
Shooting
Attacking
Umpiring
Defending
Possession
Footwork
Holding space
Contact
Dodging

Physical Education – Netball questions

1. A centre player is offside when he or she enters which part of the court?
2. How many Teams compete in the Netball super league?
3. Why do Netball players have to wear bibs ?
4. Which of the following is not a role of a centre player in Netball? To start the game

To change play from attack to defence To score a point

5. How long does a Netball game last ?
6. Which of the following statements is not true about Netball players? Every player can score a goal

Each player is restricted with in some areas of the court

A player can not touch the opponent who is holding the ball

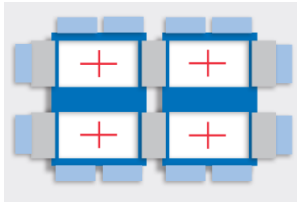
7. Explain the over a third rule
8. Explain two different rules in a Netball game

Stretch and challenge task

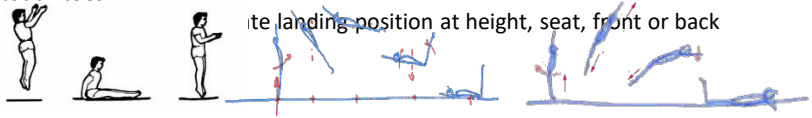
1. Watch an international or super league game of netball online.
2. What is the order you should pass the ball through starting from GK?
3. Do/should the defenders always stay with their opposite player? If not, why not? What do international players do?
4. Why might you get a penalty pass when playing netball? What is the difference when a penalty happens in the circle?

Physical Education – Trampolining

Key skills:
Shapes – perform straight, tuck, straddle, pike in isolation



Straight bounce - legs together, point toes, make circle motion with arms, keep body in straight position, stay on the cross
Tuck - in the air tuck legs up to chest and arms come down to touch shins
Straddle - split legs out to the side, point toes and attempt to touch toes
Pike - lift legs out in front keep legs together, point toes and try to lean over to
touch toes



te landing position at height, seat, front or back

Seat landing Back drop Front drop

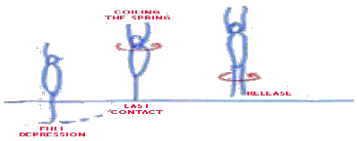
Seat Drop – land on the cross, palms down by the side, legs out straight, point toes
Back Drop – back to land on cross, arms in round position across chest, legs slightly bent, toes pointed in air
Front Drop – land on stomach (belly button to land on cross) arms and palms flat making diamond shape on bed, lift head to look at the end bed, legs lifting slightly off the trampoline ensuring they are together and toes are pointed.

Key words
Shapes, landings, twist, twist rotation, advanced rotations

Trampoline safety
Setting up
Set mats and end beds out. Cover any holes between the beds with a mat. Ensure end beds are secure. Place mats on the floor around the trampoline. Have spotters around trampoline.
Getting on and off a trampoline
Use a chair to assist getting on/ off trampoline when necessary. If not using the chair use arm strength to push up and sit on the side of the trampoline. When getting off walk to the side of the trampoline, sit down slide feet to chair or floor.
General rules All jewellery/ piercings removed. Remove shoes. Socks or grip socks to be worn.
Never go underneath the trampoline. Stay on the cross when bouncing. Only one person allowed on the trampoline at a time. Use "kill the bed" to stop when you lose control. Only perform movements your teacher has taught you
Competition rules
Land on two feet. Perform compulsory and voluntary routine. Routines must include 10 skills. Wear plain white socks. Can use 3 bounces before starting routine. Out bounce can be used if necessary at the end of routine. Cannot repeat single moves.

Twist

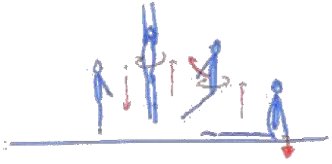
Perform 1/2 twist, full twist on trampoline with straight legs and arms (above head)



Half twist – stand on cross, perform half twist in the air. Start by facing one end bed and twist to face the opposite end bed. Arms out to the side to start, working towards placing them above head. Keep legs together an point toes

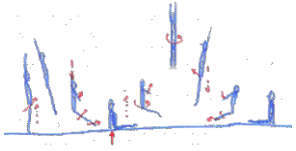
Full twist - stand on cross, perform full twist in the air. Start by facing one end bed and twist around to face the same end bed. Arms out to the side, working towards placing them above head. Keep legs together an point toes

Twist/ Rotation



Half twist to seat drop

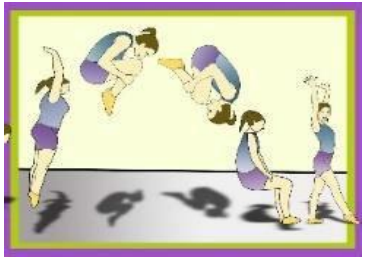
Seat drop half-twist out



Swivel hips

Advanced Rotation

Hands and knees turnover onto the mat including a bounce



Physical Education – Trampolining questions

1. Name a variety of movements you can confidently perform on a trampoline
2. Describe how to perform a twist in and out of a movement of your choice
3. Explain using coaching points how to perform a somersault
4. Create a 10 bounce routine and add a tariff
5. Tariff the following routine

Full Twist - Straddle - Seat drop - Front drop - To feet –
½ twist - Back drop - To feet - Tuck -
Tucked front somersault -

Stretch and challenge task

a) - Perform 5 bounce routine using at least 3 different key skills
b) - Attempt to twist in and out of movements from height
c) - Perform somersault with height in isolation
d) - Tariff movements
e) - Attend extra-curricular

RE – Knowledge Organiser – 1.1

Contents

Autumn 1: Creation and Covenant:
- *Genesis: equality and men and women*
- *When does life begin and end?*

Autumn 2: Prophesy and Promise:
- *God's plan for salvation*
- *The Magnificat*
- *Social justice and women in the Bible*

Spring 1: From Galilee to Jerusalem:
- *Mark's Gospel and the call of the disciples*
- *Vocation*
- *Roles within the Catholic clergy*

Questions

'Creation and Covenant' Key Words

Genesis: The first book of the Bible that contains the Creation stories.
Imago Dei: the belief humans are made 'in the image of God.'
Sacred: holy or dedicated to God.
Dignity: being worth respect.
Marriage: the sacrament where a man and a woman commit to being together forever.
Vow: solemn promises a couple make to one another during their marriage ceremony.
Conception: when a man's sperm fertilizes a woman's egg.
Abortion: the deliberate termination of a pregnancy.
Euthanasia: ending the life of a person with an incurable or painful disease.
Genetic engineering: deliberate modification of the genetic material of an organism.

'Prophesy and Promise' Key Words

Salvation: saving from sin.
Typology: interpretation of types and symbols in the Bible.
Incarnation: When God became flesh in the person of Jesus.
Marian: relating to Mary (Jesus' mother).
Magnificat: Mary's song of praise after receiving the promise of Jesus from Angel Gabriel.
Racism: treating someone less favourably because of their race.
Dogma: truths revealed by God and taught by the Magisterium.
Immaculate conception: the belief that Mary was born free from sin.
Assumption: the belief that Mary's body and soul were taken up to heaven at the end of her life.

'From Galilee to Jerusalem' Key Words

Scholarship: academic study of the Bible.
Mark: the author of Mark's Gospel.
The Four Evangelists: the four authors of the Gospels; Matthew, Mark, Luke and John.
Discipleship: following Jesus and learning more about him.
Vocation: a calling from God to a role or job.
Holy orders: the sacrament of ordination to the clergy.
Deacon: an ordained member of the clergy but not with the full role of a priest. May also refer to a trainee priest.
Priest: an ordained member of the clergy who leads a parish and administers the sacraments.
Bishop: a senior priest in charge of a diocese.
Ministry: a person's religious teaching.

RE – Knowledge Organiser – 1.2

Autumn 1: Creation & Covenant - Genesis: equality and men and women

The Book of Genesis teaches that all human beings are made in God's image (Imago Dei) and therefore **all** human life is sacred and worthy of respect. As beings made in God's own image, humans themselves possess something of the attributes of their Creator, eg, free will, rational and the ability to love.

Men and women are equal too. The Hebrew word *'ezer'* means a strong helper, not someone who is weak or less important. It's used to describe God and powerful help. When God made woman, He made her to be a strong and equal partner to man—not a servant. Man wasn't complete without her.

The authorial voices of Genesis 1 and 2	
The Genesis 1 account comes from the Priestly (P) source: In Genesis 1, God creates the world in 6 days and rests on the 7th. He creates 'ex nihilo' (out of nothing). The passage sounds formal - God commands something and it happens in a set order.	**The Genesis 2 account comes from the Jahwist (J) source:** Genesis 2 focuses more specifically on the creation of humanity, with many theologians viewing it as a more detailed account of day 6, rather than a totally separate story. This passage sounds more informal – God sounds more personal and thoughtful in his creativity.

Catholic marriage is between a man and a woman and reflects God's purpose for men and women to be partners in the Creation story. Catholic marriage is:

- Holy: In the Catholic Church, marriage is a sacred sacrament that requires preparation and lifelong commitment. It is seen as a vow made before God and cannot be taken lightly or ended by civil divorce.
- Legal: The Church must be licensed to perform weddings, and the couple must be legally free to marry. They sign a Marriage Schedule, making it a legal contract, and divorce would involve legal processes.

Marriage is:
***S**acramental*
***P**rocreative*
***E**xclusive*
***L**ife-long*

RE – Knowledge Organiser – 1.3

Autumn 1: Creation & Covenant - When does life begin and end?

Catholics believe all human life is sacred and belongs to God – all are made Imago Dei. Only God has the right to give life, and to take it away. This belief is referred to as the 'Sanctity of Life.'

When does life begin?

Conception? Heartbeat? Viable? Birth?




Catholic teaching says that life begins at conception. Therefore, **abortion** is not permitted by Catholic teaching because:

- God knows of and has a plan for every life, even before it is born. "Before I formed you in the womb, I knew you." (Jeremiah)
- The Bible says "Do not kill" (10 Commandments). Abortion would be murder of the foetus.

The topic is controversial and *some* Christians may have a more liberal view, allowing abortion in certain serious situations.

Euthanasia (meaning 'easy death') is the painless killing of a person suffering from a painful, terminal disease, who has no quality of life. While some people view it as a kindness to end the suffering of someone who may not want to live anymore, many, see it as unacceptable and akin to murder.

Genetic engineering is when scientists change the DNA of a living thing—like a plant, animal, or even a human. It can:

- Make crops stronger so they resist bugs or grow in tough weather.
- Help cure diseases by fixing faulty genes in people.
- Create medicines, like insulin for people with diabetes.
- Grow organs for people who need transplants.

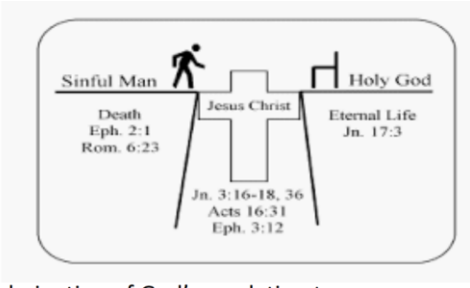
Benefits of GE	Moral Concerns of GE
• Healthier lives: It can help treat or even prevent diseases. • Better food: Crops can be more nutritious and last longer. • Environmental help: Plants can be engineered to need less water or resist pests, reducing the need for chemicals.	• Fairness: What if only rich people can afford gene editing? • Safety: What if something goes wrong and causes harm? • Changing humans: Editing genes in babies (called "germline editing") could affect future generations

The Catholic Church believes:

- Science is a gift from God, and using it to heal people is good.
- But we must respect human dignity and not treat people like experiments.
- It's okay to fix genes to cure diseases, but not to design "perfect" babies or change what it means to be human. Embryos must not be discarded in the process.
- Every person, no matter their genes, is created in God's image and has value.

RE – Knowledge Organiser – 1.4

Autumn 2: Prophecy & Promise - God's plan for salvation



God's Big Rescue Plan

Genesis tells us how God made the first humans, Adam and Eve. He gave them a beautiful garden and asked them to trust and obey Him. But they chose to disobey, and that brought sin and death into the world. That's why the world is broken and people do wrong things. But God didn't give up on us. He had a plan to fix everything — a rescue plan!

Jesus is like a second Adam.
Just like Adam's choice brought sin into the world, Jesus came to make things right. He always obeyed God, even dying on the cross to take the punishment for human sins, and then He rose from the dead to give new life. Because of Jesus, we can be close to God again.

Mary is like a second Eve.
Eve said "no" to God's plan, but Mary said "yes." When the angel told her she would be the mother of Jesus, she trusted God completely. Her "yes" helped bring Jesus, the Savior, into the world.

In summary:

- Adam and Eve brought sin and death.
- Jesus and Mary brought hope and life.

Christians believe Jesus is the culmination of God's revelation to humanity… the final step of the rescue plan. In coming to earth himself, in the form of Jesus, God showed humans the way to salvation.
We call the belief that God came down to earth **in** human form, born of Virgin Mary, the **in**carnation.

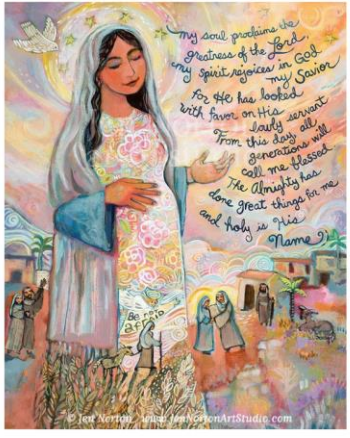
In the Bible, Mary says,
"All generations will call me blessed" (Luke 1:48).
That means people in every time and place will honor her.
The **Catholic Church teaches** that this is true — and one way we show it is through **Marian feasts**. These are special days in the Church calendar when we remember and celebrate important moments in Mary's life, like:
The Annunciation (when the angel told her she would be Jesus' mother)
The Assumption (when she was taken to heaven)
Our Lady of Lourdes, **Fatima**, and other titles that show how she helps people around the world
By celebrating these feasts, we're doing exactly what Mary said: **calling her blessed** and thanking God for choosing her to be the mother of Jesus.

RE – Knowledge Organiser – 1.5

Autumn 2: Prophecy & Promise – The Magnificat

Mary has just found out from the angel Gabriel that she will be the mother of Jesus, the Son of God. After this amazing news, she goes to visit her cousin Elizabeth, who is also expecting a baby — John the Baptist.

When Mary arrives, Elizabeth is filled with the Holy Spirit and calls Mary "blessed among women" because she believed God's promise. Mary is so full of joy and praise that she bursts into a song, praising God for choosing her, a humble young woman, to be part of His plan to save the world.



Why Is It Important?

- It shows Mary's deep faith and trust in God.
- It reminds us that God lifts up the lowly and cares for the poor and humble.
- It connects to the Old Testament, especially the songs of women like Hannah (1 Samuel 2), showing how Mary is part of God's long story of salvation.

The Magnificat (Mary's Song of Praise)
Luke 1:46-55

46 And Mary[a] said,
'My soul magnifies the Lord,
47 and my spirit rejoices in God my Saviour,
48 for he has looked with favour on the lowliness of his servant.
Surely, from now on all generations will call me blessed;
49 for the Mighty One has done great things for me,
and holy is his name.
50 His mercy is for those who fear him
from generation to generation.
51 He has shown strength with his arm;
he has scattered the proud in the thoughts of their hearts.
52 He has brought down the powerful from their thrones,
and lifted up the lowly;
53 he has filled the hungry with good things,
and sent the rich away empty.
54 He has helped his servant Israel,
in remembrance of his mercy,
55 according to the promise he made to our ancestors,
to Abraham and to his descendants for ever.'

RE – Knowledge Organiser – 1.6

Autumn 2: Prophecy & Promise – Social Justice and Women in the Bible

Mary's song sets the example for those who are humble being able to do great things for God.

Humble Christians throughout history have stood up for what is right in many situations of injustice, and they continue to do so today. For example:

Martin Luther King

- Baptist Christian pastor and leader in the fight for **civil rights** in the United States. He believed that all people should be treated equally, no matter the color of their skin.
- In the 1950s and 60s, Black people in America were often treated unfairly. They couldn't go to the same schools, eat at the same restaurants, or even sit in the same places on buses as white people.

- MLK stood up against this **racism** using **peaceful protests**, **marches**, and **powerful speeches**. His most famous speech is **"I Have a Dream,"** where he spoke about a future where everyone would be treated the same.
- Because of his courage and leadership, laws were changed to give Black people more rights. He showed the world that **love and non-violence** are stronger than hate.

Mary's Magnificat shows that she is part of a long line of **faithful, courageous women** who trusted God. Her song brings together the voices of these women and shows how **God's promises are being fulfilled** through her and through Jesus.

Two Old Testament women:

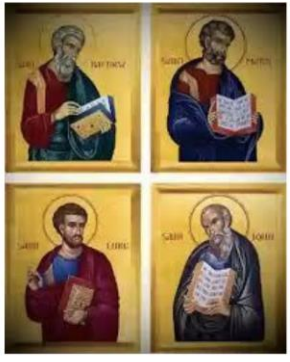
- **Deborah (Judges 5)** - A prophetess and judge who led Israel to victory. She sang a **victory song** with Barak, praising God for delivering His people — just as Mary praises God for His saving power.
- **Miriam (Exodus 15:20–21)** - Moses' sister, who led the women in song after God saved the Israelites from Egypt. Her song celebrates **freedom and God's power**, themes also found in Mary's Magnificat.

RE – Knowledge Organiser – 1.7

Spring 1: From Galilee to Jerusalem – Mark's Gospel and the Call of the Disciples

The Bible contains four Gospels written by the four evangelists; Matthew, Mark, Luke and John.

Mark, the author of the Gospel of Mark, was a follower of Jesus who probably wasn't one of the 12 main disciples, but he knew people who were—like Peter. Many believe he wrote down what Peter told him about Jesus' life, death, and resurrection. His Gospel is the shortest and most action-packed, written to help people quickly understand who Jesus was and what he did. Many scholars believe it to be the first Gospel that was written.



Jesus Calls the First Disciples (Mark 1:16-20)

16 As Jesus passed along the Sea of Galilee, he saw
Simon and his brother Andrew casting a net into the
lake—for they were fishermen. 17 And Jesus said to
them, 'Follow me and I will make you fish for
people.' 18 And immediately they left their nets and
followed him. 19 As he went a little farther, he saw
James son of Zebedee and his brother John, who were
in their boat mending the nets. 20 Immediately he
called them; and they left their father Zebedee in the
boat with the hired men, and followed him.

Jesus sends out the Twelve Disciples (Mark 6:7-13)

7 He called the twelve and began to send them out two by two, and gave them
authority over the unclean spirits. 8 He ordered them to take nothing for their journey
except a staff; no bread, no bag, no money in their belts; 9 but to wear sandals and
not to put on two tunics. 10 He said to them, 'Wherever you enter a house, stay there
until you leave the place. 11 If any place will not welcome you and they refuse to hear
you, as you leave, shake off the dust that is on your feet as a testimony against
them.' 12 So they went out and proclaimed that all should repent. 13 They cast out
many demons, and anointed with oil many who were sick and cured them.

RE – Knowledge Organiser – 1.8

Spring 1: From Galilee to Jerusalem - Vocation and roles within the Catholic clergy

A vocation is described as a calling from God to a particular way of life, job or role. For some people their career could be their calling; to be a doctor, teacher, paramedic etc. Some people's vocation is to charity work or to family life. Some Catholics are called to ministry – to train as a priest and undertake the sacrament of Holy Orders. In Catholicism, only men may become priests. Regardless of job, all Christians believe they are called to follow Jesus and live their life according to his teachings.

'Jesus said, "Come, follow me."' (Matthew 4:19)

•**Deacon**: A deacon helps the priest and serves the people. He can preach, baptize, and do weddings, but he can't say Mass or hear confessions.
•**Priest**: A priest leads a parish (a church community). He celebrates Mass, hears confessions, gives Communion, baptizes, and helps people grow in their faith.
•**Bishop**: A bishop is in charge of many churches in a big area called a diocese. He guides priests and deacons, teaches the faith, and can do special jobs like confirming people.

They all work together to help people follow Jesus.

The debate on women priests:

Some people believe **women should be allowed to become priests** because:
•Men and women are equal in God's eyes.
•Women can be great leaders and teachers in the Church.
•Other Christian churches already have women priests.

Others, especially in the **Catholic Church**, believe **only men should be priests** because:
•Jesus chose only men as his 12 apostles.
•The Church has followed this tradition for 2,000 years.
•The priest represents Jesus, who was a man.

The Catholic View:
The Catholic Church teaches that **only men can be priests**, and this is not just a rule—it's a part of Church tradition that they believe they don't have the authority to change. But women still play very important roles in the Church in many other ways.

RE – Knowledge Organiser – Questions

Autumn 1: Creation and Covenant Questions	Autumn 2: Prophesy and Promise Questions	Spring 1: From Galilee to Jerusalem Questions
1. Define the term *Imago Dei* and explain what it means for human equality. 2. Create a Venn diagram or table comparing the Priestly (P) and Jahwist (J) sources of Genesis. 3. Write a short paragraph explaining why men and women are considered equal in the Genesis creation story. 4. Design a poster that shows the Catholic view of marriage, including symbols and key words like "sacrament," "unitive," and "exclusive." 5. Imagine you are a Catholic priest. Write a short speech explaining why marriage is a lifelong commitment. 6. When does the Catholic Church believe life begins, and why does this affect its view on abortion? 7. Define the term *euthanasia* and explain why the Catholic Church considers it morally wrong. 8. List three benefits of genetic engineering mentioned. 9. What are two moral concerns the Catholic Church has about genetic engineering? Would you agree with the Church or not? Explain as fully as you can. 10. 'Tampering with human life is always wrong.' Either write an essay debating this statement, or design a full page poster showing arguments and religious teachings.	1. Explain in your own words what "God's Big Rescue Plan" is. 2. Compare Adam and Jesus. What do the texts say about how Jesus is like a second Adam? 3. Why is Mary's "yes" to God important in the rescue plan? 4. Read 'The Magnificat.' Copy out 2–3 verses that show how Mary praises God for helping the poor and humble. 5. How does 'The Magnificat' show Mary's faith and trust in God and what her character is like? 6. List two ways Mary's story connects to stories of women in the Old Testament. 7. Why is Mary's song important for people fighting for justice today? Explain how her message inspires Christians like Martin Luther King. 8. Design a poster showing Mary as a role model. Include key words like *faithful*, *humble*, *obedient*, and *blessed*, and draw or describe a symbol that represents her role in God's plan. 9. Imagine you are Mary hearing the angel's message. Write a short diary entry describing your thoughts and feelings after saying "yes" to God. 10. In summary, what two things did Adam and Eve bring into the world, and what two things did Jesus and Mary bring?	1. Who was Mark, and what is special about his Gospel? 2. What did Jesus say to Simon and Andrew when he called them? 3. How did the disciples respond when Jesus called them? 4. List two instructions Jesus gave the disciples when he sent them out (Mark 6:7–13). 5. What were the disciples able to do when Jesus sent them out? 6. Do you think it was brave of the disciples to leave everything to follow Jesus? Why or why not? 7. Explain the roles of deacon, priest and bishop in your own words. 8. Do you agree or disagree with the Catholic Church's view on women priests? Explain your answer. 9. Write a short diary entry as one of the disciples being sent out by Jesus. How would you feel? 10. Create a poster or mini fact file explaining the roles of a deacon, priest, and bishop.

Science – TERM 1 – Working Scientifically and RPAs

Independent variable: The variable that you change
Dependent variable: The variable that is measured
Control variable: A variable that should be kept the same

Prediction: What you think your results will show and why.

Risk assessment: Identify hazards, the harms they can do and how you will minimize any risks in a practical investigation.

Method: Step-by-step instructions for how to carry out a practical investigation.

Results table: As the practical is carried out, write the results in a table.

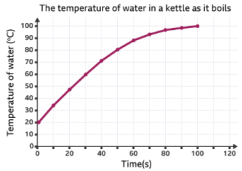
Anomalies: result that is much higher or lower than the general pattern

Calculating a mean

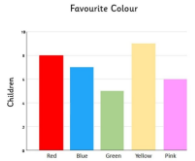
1. Check for anomalies – circle them and ignore
2. Add up the remaining results for that value
3. Divide the total by the number of results

The most common ways of presenting data in science are:

- A **line graph** should be used when the independent and dependent variables are continuous.

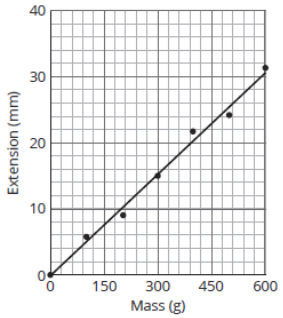


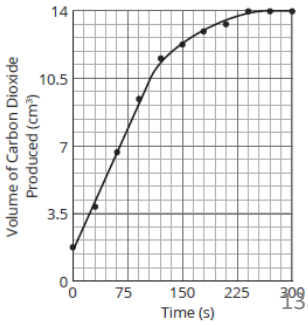
- A **bar chart** should be used if the independent variable is discontinuous .



Once points have been plotted for a line graph, draw a **line of best fit**:

- ✓ Does NOT have to go through 0,0
- ✓ The line should be drawn through as many points as possible,
- ✓ Equal numbers of points above and below the line.
- ✓ Anomalies should be ignored.
- ✓ It may be straight or curved

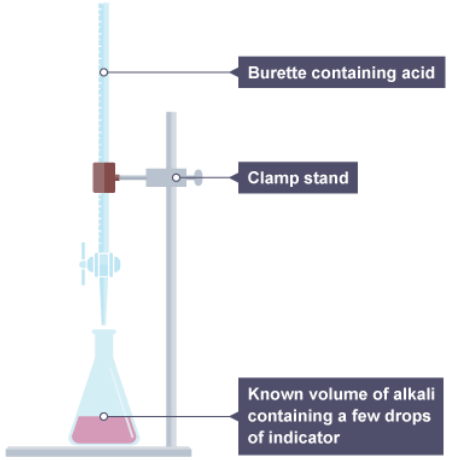




Neutralisation

Acid + alkali → salt + water

pH7 is neutral – this is the end point for a neutralisation
With universal indicator this is green



Method

1) Measure 25cm^3 of alkali using a volumetric pipette – add to a conical flask
2) Add a few drops of indicator, swirl, and place on a white tile under the burette
3) Fill the burette with acid – upto 0cm^3
4) Open tap on burette and gradually add acid into the conical flask, swirl
5) Slow down the adding of alkali when approaching the end point
6) Record the volume of acid added to reach pH7
7) Repeat twice, discard anomalies and calculate a mean

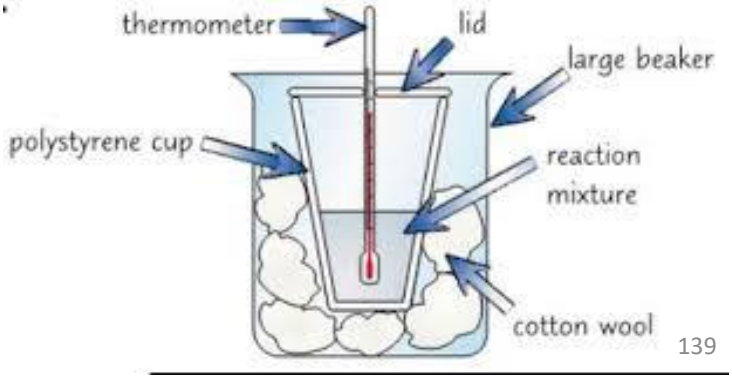
Measuring temperature change in reactions

Endothermic = temperature decreases, energy is transferred from the surroundings
e.g. sodium hydrogen carbonate + citric acid, thermal decomposition, ammonium nitrate + water

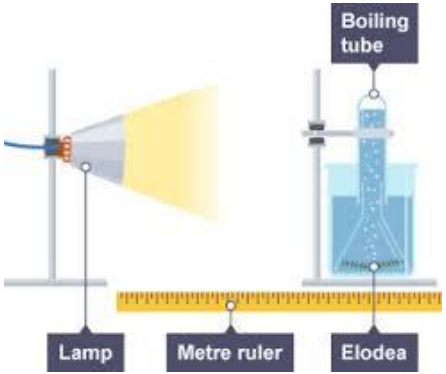
Exothemric = temperature increases, energy is transferred to the surroundings
e.g. displacement, neutralisation, metal + acid, combustion

How to make the investigation more accurate?

1) Add a lid
2) Use a polystyrene cup
3) Stir the reactants
4) Repeat it, discard anomalies, calculate a mean



Rate of Photosynthesis



Independent variable = the distance of light from the plant

Dependent variable = number of bubbles of oxygen per minute

Control variables = the length of pondweed, temperature, time left to acclimatise for

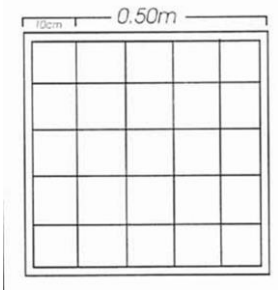
As you increase the distance of the light, the number of bubbles perminute decreases – because light energy is needed for photosynthesis.

How to make more valid? Use an LED instead of a filament bulb. Use sodium hydrogen carbonate solution instead of water.

How to make it more accurate? Measure volume of oxygen using a gas syringe

Ecology

1) Quadrat study = used to estimate the total population. Or to compare the population in two different areas.
Quadrats are placed RANDOMLY, and repeated many times (more than 10!)

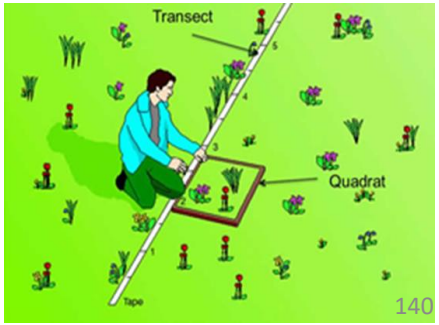


How to make more accurate?
a) Use a bigger quadrat
b) Repeat more times

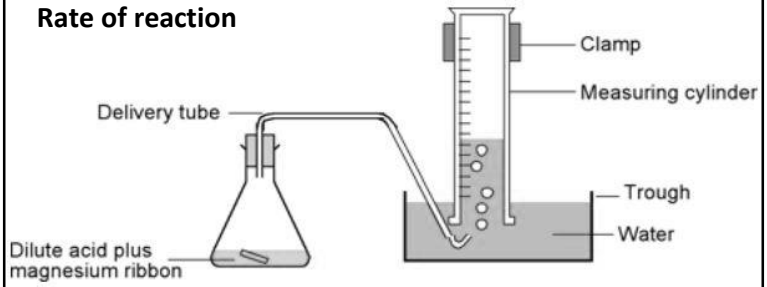
Estimated population = mean number in quadrat x total area / area of quadrat

2) Transect study = used to see how population changes as the habitat changes.

Quadrats are placed at REGULAR INTERVALS along a straight line.



Rate of reaction



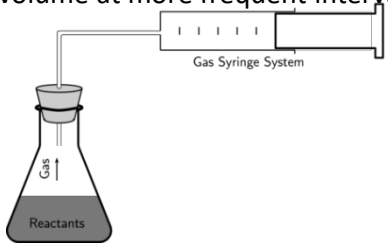
Independent variable = anything that affects rate of reaction… temperature, concentration, surface area, use of a catalyst.

Dependent variable = volume of gas produced every 30 seconds.

Control variables = the volume of solutions. Others will depend on the independent variable.

How to make it more accurate?

a) Measure volume of gas using a gas syringe.
b) Measure volume at more frequent intervals.



Density

Density = mass ÷ volume

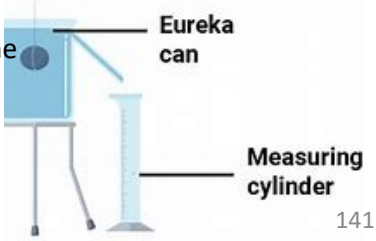
1) <u>Calculating density of a regular shaped object</u>

- Measure mass using scale
- Measure length, height and width of object using a ruler
- Multiply length x height x width to calculate volume
- Divide mass by volume

How to make more accurate? Use Vernier calipers in place of a ruler.

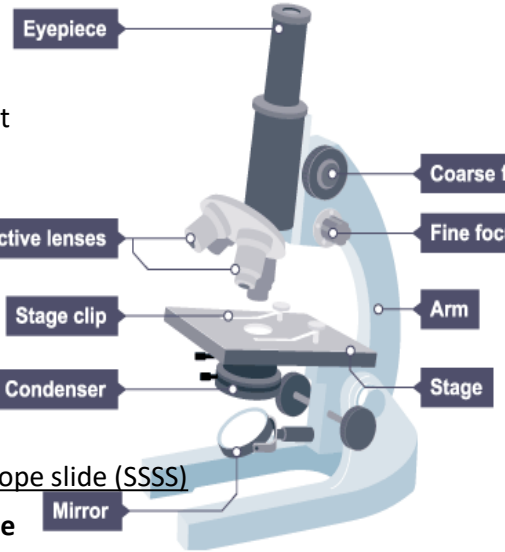
2. <u>Calculating density of an irregular shaped object</u>

- Measure mass using scale
- Fill a Eureka can with water, to the spout
- Place the object in the Eureka can – measure the volume of the displaced water in a measuring cylinder
- Divide mass by volume



RPA microscopes

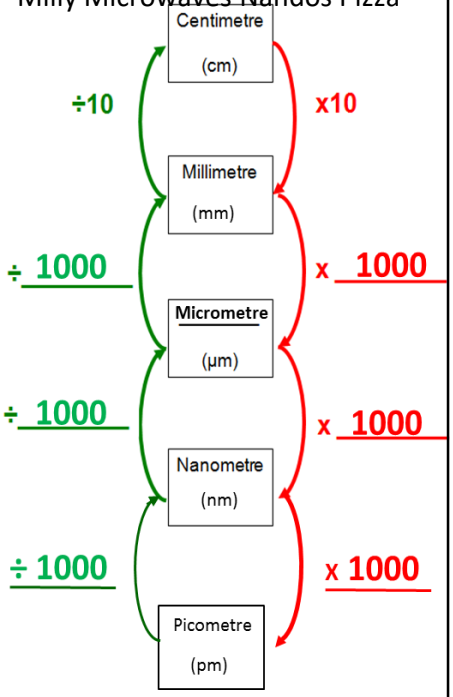
This is used to magnify the image Always start on the lowest power objective lens – so it is easier to focus



These are used to focus on the imag

Scaling Up and Down

Milly Microwaves Nandos Pizza



How to prepare a microscope slide (SSSS)

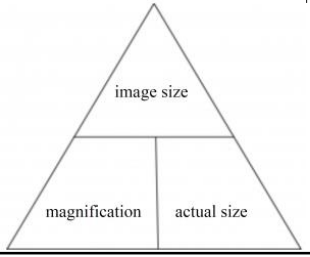
- Thin layer of the **sample**
- Place on **slide**
- Small drop of a **stain** (to allow cell parts to be seen)
- Lower cover **slip** at an angle (prevent air bubbles)

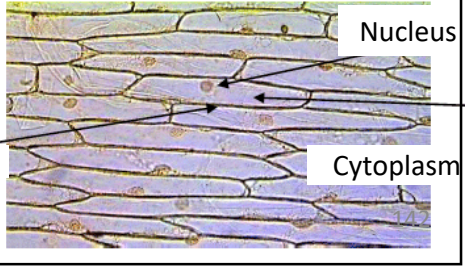
How to view a slide

- Place on the stage
- View at first on the **lowest magnification**
- Focus it by turning the wheel (coarse first, then fine)
- Increase magnification by changing the objective lens

Magnification **(MIA)**

Magnification = $\frac{\text{size of image}}{\text{size of actual object}}$



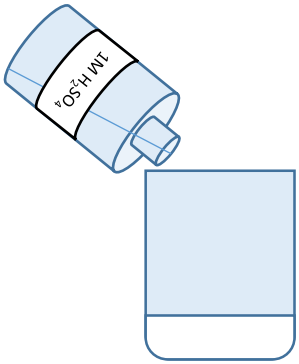


100x

Making a soluble salt

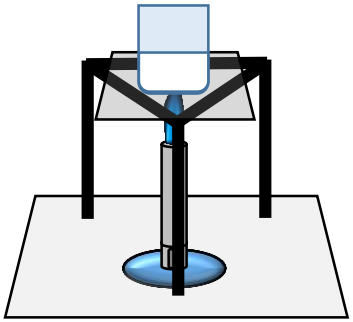
These same steps can be used to make ANY pure, dry soluble salt.
LEARN the steps – and just change the name of the acid or base!

1



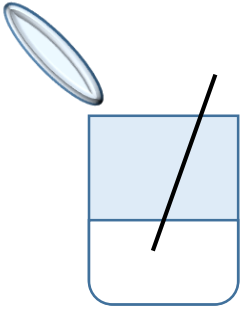
Measure 50ml of acid
Which acid is needed?

2



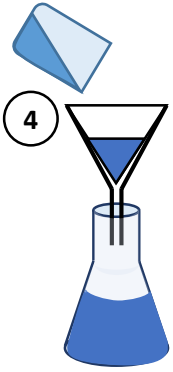
Warm the acid gently

3



Add an excess of the base (an oxide or carbonate) and stir
Which base is needed?

4

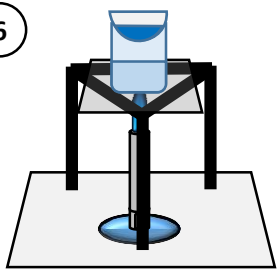


Filter the excess base

5

Pour into an evaporating basin

6

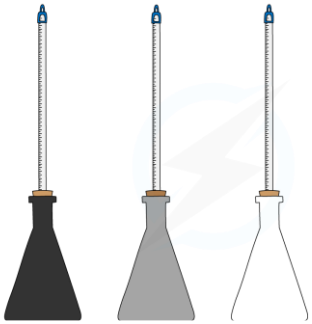


Heat the solution over a water bath

7

Leave to crystallise

Radiation

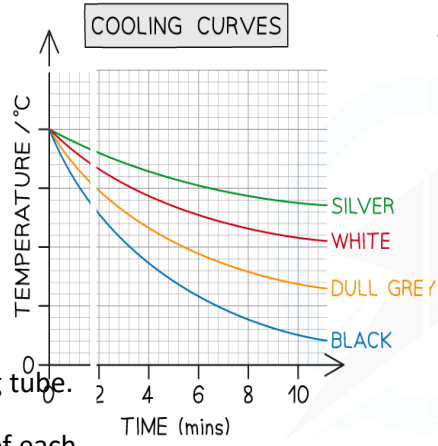


Keyword	Definition	Good surfaces	Poor surfaces
Absorb	Radiation taken into a substance.	Black, dull	Light, shiny
Emit	Radiation given off by a substance.	Black, dull	Light, shiny
Reflect	Radiation bouncing off a substance.	Light, shiny	Black, dull
Transmit	Radiation passing straight through a substance.	Transparent	Opaque

Method for investigating emission

1) Place test tubes in a rack
2) Measure 10cm^3 of **hot** water into a measure cylinder (x4)
3) Pour into each colour boiling tube
4) Place a thermometer in each boiling tube.
5) Measure the starting temperature of each and record, start the timer.
6) Leave for 15 minutes.
7) Measure the temperature of each and record.
8) Calculate the change in temperature for each.

Results for emission



Method for investigating absorption

1) Place test tubes in a rack
2) Measure 10cm^3 of **cold** water into a measure cylinder (x4)
3) Pour into each colour boiling tube
4) Place a thermometer in each boiling tube.
5) Measure the starting temperature of each and record, start the timer.
6) Shine a light on them, and leave for 15 minutes.
7) Measure the temperature of each and record.
8) Calculate the change in temperature for each.

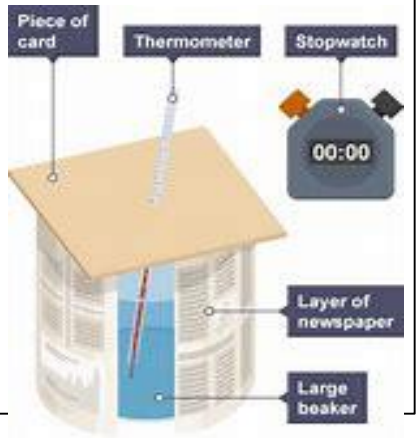
Thermal insulation

- Any hot substance will cool down to room temperature
- Insulation will prevent thermal energy transfer to the environment – so the hot substance will cool more slowly
- A material with low thermal conductivity = a GOOD insulator = temperature will reduce LESS

Independent variable = type / thickness of insulation
Dependent variable = temperature change after 10 minutes
Control variable = starting temperature of water, volume of water, use of a lid

Method

- Measure 50cm^3 of hot water
- Add to the beaker
- Measure starting temperature of water, add lid
- Start timer
- After 10 minutes, measure the temperature of the water
- Repeat, adding one layer of insulation to the outside of the beaker



Soluble salt

1. What must you do to the acid?
2. How much base do you add?
3. Why do we filter the mixture?
4. Which pieces of apparatus is used to heat the mixture?
5. How do we remove the water from the mixture?
6. To prepare each of the following salts identify which acid must be used:
    a) Calcium chloride
    b) Calcium sulphate
    c) Calcium nitrate
7. To prepare each of the following salts, identify which base(s) could be used:
    a) Iron nitrate
    b) Sodium nitrate
    c) Potassium nitrate

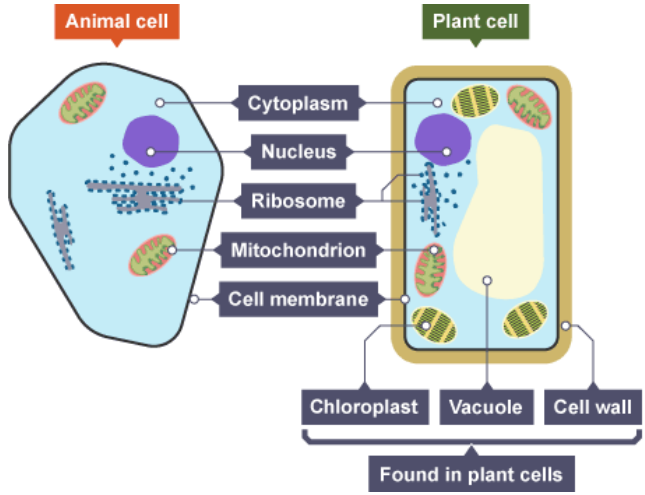
All living organisms are made up of cells. Organisms can be made up of one cell (unicellular) or made up of many cells (multicellular).

Cell part	Function
Nucleus	Contains genetic material. Controls cell activities.
Cell membrane	Controls the movement of substances in and out of the cell.
Mitochondria	Aerobic respiration, releases energy
Ribosome	Protein synthesis
Cytoplasm	Chemical reactions
Cell wall	Supports the structure of the cell
Vacuole	Supports the cell wall, contains cell sap
Chloroplast	Photosynthesis

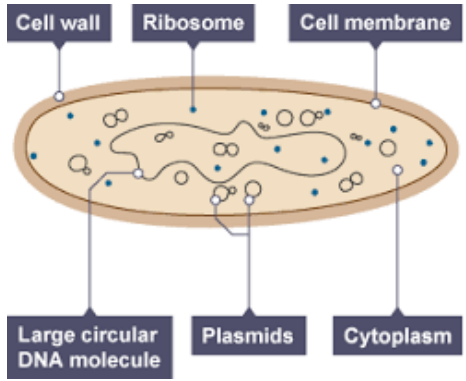
Animal, plant and yeast cells are **eukaryotic** – this means they contain a nucleus

Prokaryotic cells e.g. bacteria

- Contain no nucleus or mitochondria
- May contain plasmids (circular rings of DNA)
- Are much smaller and simpler



Electron microscopes have a **higher resolution** and **magnification** than light microscopes, and so more cell parts can be seen (as in these diagrams)

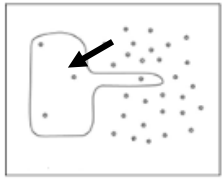


Cell transport

All cells need to absorb nutrients and excrete waste. Cells gain and lose substances in three ways:

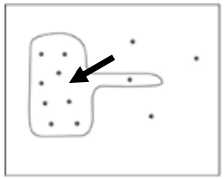
<u>1) Diffusion</u>

- Movement of substances from a higher concentration to lower concentration
- e.g. red blood cells absorbing oxygen, leaves absorbing carbon dioxide during the day



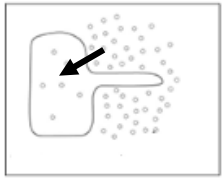
<u>2) Active transport</u>

- Movement of substances from a lower concentration to higher concentration.
- Requires energy, from respiration.
- Cells will contain more mitochondria
- e.g. root hair cells absorbing nitrate ions from soil



<u>3) Osmosis</u>

- The movement of water molecules, from a dilute solution to a concentrated solution
- Across a partially permeable membrane
- E.g. root hair cells and cells of the large intestine absorbing water



Cells that absorb substances often have a large surface area

Cell division

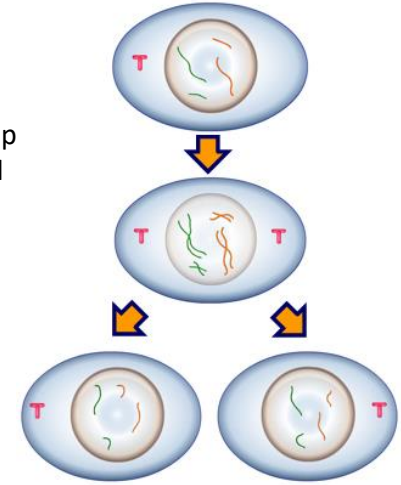
New body cells are needed:

- When tissues are damaged and need to be repaired
- During growth

New body cells are made during the cell cycle

<u>Stages of the cell cycle</u>

1) Cell grows in size, organelles are copied, and chromosomes are copied
2) Chromosomes line up in the centre of the cell and are pulled apart – the nucleus divides (mitosis)
3) The cytoplasm and membrane divides, forming two daughter cells



Cancer

Cancer occurs when changes in DNA lead to cell division happening uncontrollably

Benign tumours = do not spread
Malignant tumours = are cancers – they can spread, when cells break off the tumour and travel through the blood to form secondary cancers

RPA 2 osmosis

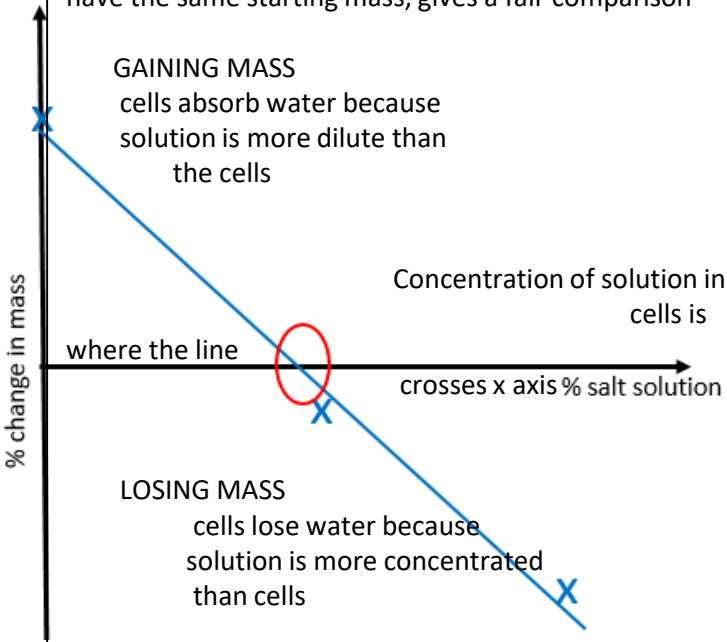
Independent variable = concentration of solution

Dependent variable = change in mass

Control variables = temperature, time left in solution, volume of solution

Percentage change = $\frac{\text{change in mass}}{\text{starting mass}} \times 100$

Percentage change calculated as not all the potatoes will have the same starting mass, gives a fair comparison



Stem cells

Cells that are unspecialised, and can differentiate into other types of cells. They can be used to treat:

- Type 1 diabetes
- Leukaemia, and other types of cancer
- Burns

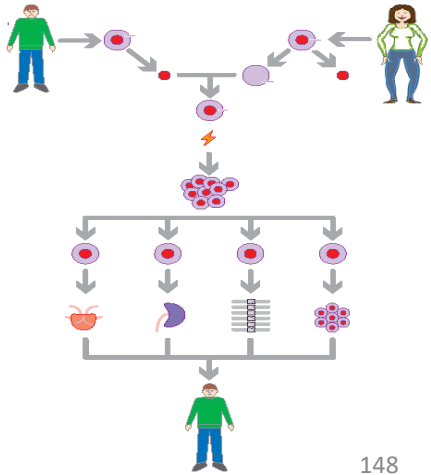
Embryonic stems cells – found in embryos, are completely unspecialised, so can be turned into more types of cells

Adult stem cells – found in bone marrow and skin; are partially specialised, so cannot be turned into as many types of cells

Donor stem cells may be rejected, and carry viruses.

Therapeutic stem cell cloning –

- Remove the nucleus from a patient's skin cell
- Insert it into an empty donor egg cell, and stimulate cell division
- Creates an embryonic stem cell line that contain the patient's DNA.
- Will not be rejected.



Keyword	Meaning
Pure substance *Anything off periodic table*	Contains only one type of substance May be an element or a compound
Mixture / impure substance *Salt water, crude oil, air*	Contains more than one type of substance
Formulation *Alloys, medicine, paints, fuels*	A mixture, designed for a specific purpose, made of specific materials in specific quantities
Chromatography	Separating technique that separates soluble substances in a mixture

Test for purity

- Heat the substance
- A pure substance will melt or boil at one specific temperature
- An impure substance (mixture) will melt or boil over a range of temperatures

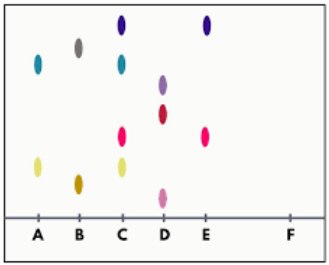
Gas	Method for testing	Positive result
Oxygen	Glowing splint	Relights
Hydrogen	Burning splint	Squeaky pop
Chlorine	Damp litmus paper	Bleaches
Carbon dioxide	Limewater	Goes cloudy

Chromatography

- Draw a pencil line on filter paper
- Put spots of your dyes on pencil line
- Suspend in solvent – level below the pencil line
- Wait for solvent to travel up the paper
- Remove, draw a second pencil line where solvent reached

Rf value = distance of substance ÷ distance of solvent

Rf is <u>ALWAYS</u> less than 1



Stationary phase = the paper
Mobile phase = the solvent

<u>Interpreting results</u>
One spot = pure substance
More than one spot = mixture
Spot has not moved from pencil line = insoluble
Spot at the top = most soluble pigment
Spots at same height = same pigment

Gas	Percentage
Oxygen	21%
Nitrogen	78%
Carbon dioxide	0.03%
Others e.g. argon, water vapour	Less than 1%

Greenhouse effect

- Sun emits short-wave length radiation
- Absorbed by Earth, and re-emitted as long-wave radiation
- Absorbed and re-emitted by greenhouse gases
- Little radiation energy escapes to space

Effects of global warming

More extreme weather; more droughts & floods; ice caps melt & sea levels rise; changes to migratory patterns

Carbon footprint = the total amount of greenhouse gases emitted during the lifetime of a product, service or event

Reduce carbon footprint by burning less fuel, using less energy, recycling and re-using materials

Atmospheric pollutants

Pollutant	Source	Problem caused
Nitrogen oxides	Burning fuels at high temperatures in engines. Nitrogen and oxygen from the air react.	Acid rain Respiratory problems
Sulfur dioxide	Burning fossils fuels with impurities	
Carbon monoxide	Incomplete combustion	Toxic to humans
Carbon particulates	Incomplete combustion	Global dimming Health problems
Methane	Landfill, cattle farming and rice farming	Global warming
Carbon dioxide	Deforestation and burning fossil fuels	

Evolution of the atmosphere

1. The early atmosphere was mostly carbon dioxide and water vapour (from volcanoes)
2. Water vapour cooled and condensed to form oceans.
3. Carbon dioxide gas dissolved into the oceans and formed sedimentary rocks
4. Green plants and algae evolved and absorb carbon dioxide for photosynthesis.
5. Plants released oxygen
6. Animals and other complex life began to evolve.

Y9 Particle model of matter (GCSE P3)

Particle theory All matter is made up of particles. Particles are found in three main states of matter (depending on how much internal energy they have).

Internal energy

- The total kinetic energy and potential energy of all the particles that make up a system
- Heating changes the internal energy – this either raises the temperature or changes the state

Changes of state are physical changes (not chemical changes) because the material recovers the original properties if the changes are reversed.

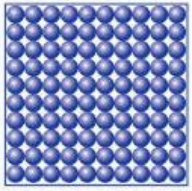
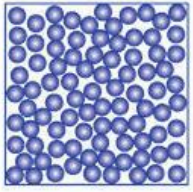
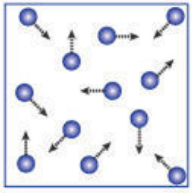
Mass is conserved during changes of state.

Melting – from solid to liquid
Evaporation – from liquid to gas
Sublimation – from solid to gas

Require heating – increase in internal energy

Freezing – from liquid to solid
Condensation – from gas to liquid

Require cooling – decrease in internal energy

		
Solid	**Liquid**	**Gas**
Particles are in a regular, fixed arrangement. Particles vibrate in a fixed position.	Particles are arranged randomly and can move – they slide past and over each other.	Particles are for apart, can move in all directions; show random movement – known as Brownian motion.
Least amount of internal energy	More internal energy	Highest amount of internal energy
Fixed volume and shape	Fixed volume, shape can change	No fixed volume or shape – can be compressed
High density	Medium density	Low density

RPA Density

Density = mass ÷ volume

Units: either kg/m^3 or g/cm^3

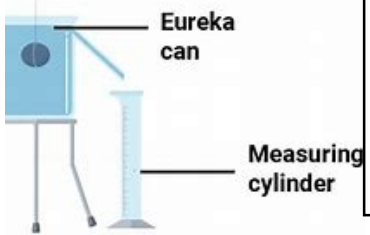
1) <u>Calculating density of a regular shaped object</u>

- Measure mass using scale
- Measure length, height and width of object using a ruler
- Multiply length x height x width to calculate volume
- Divide mass by volume

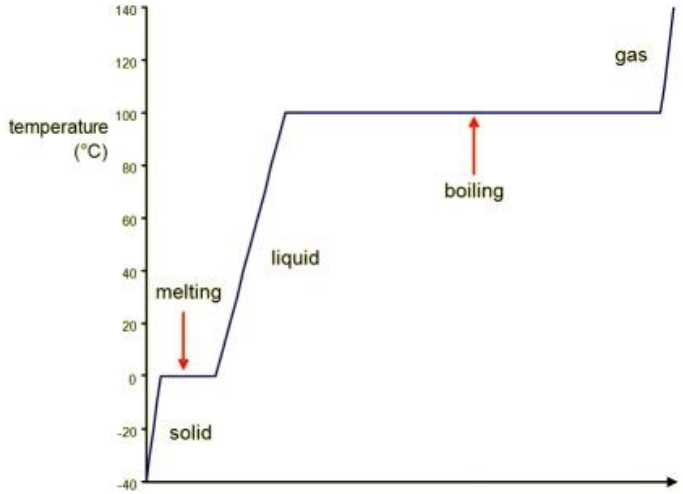
How to make more accurate? Use Vernier calipers in place of a ruler.

2. <u>Calculating density of an irregular shaped object</u>

- Measure mass using scale
- Fill a Eureka can with water, to the spout
- Place the object in the Eureka can – measure the volume of the displaced water in a measuring cylinder
- Divide mass by volume



Latent heat The energy needed for a substance to change state is called latent heat.
When a change of state occurs, the energy supplied changes the energy stored (internal energy) but not the temperature.



The flat parts of the graph are when the material is changing state, and the temperature is not changing. The temperature on the y axis at that flat point is the melting or boiling point.

The graph above is for pure water – the melting point is at 0^{o}C and the boiling point is at 100^{o}C.

Specific latent heat
= the amount of energy required to change the state of one kilogram of the substance with no change in temperature.

Units = J/kg

Specific latent heat of **fusion** – change of state from solid to liquid

Specific latent heat of **vaporisation** – change of state from liquid to vapour

Formula (given in exam):

Energy = mass x specific latent heat

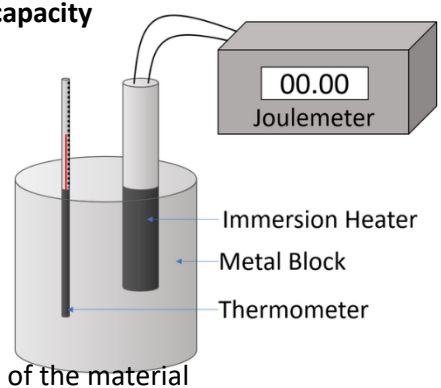
Specific heat capacity
= the amount of energy required to heat 1kg of a substance by 1°C

Units = J/kg°C

Formula (given in exam):

Energy = mass x specific heat capacity x temperature change

RPA Specific heat capacity



1) Measure mass of the material
2) Place one drop of water in the thermometer hole
3) Measure the starting temperature of the material
4) Turn on power supply, heat for 10 minutes
5) Measure the end temperature
6) Measure the energy transferred using the Joule meter
7) Calculate the specific heat capacity by using this formula:

$$\text{Specific heat capacity} = \frac{\text{energy transferred}}{\text{mass} \times \text{temperature change}}$$

Higher tier:
If you do not have a Joulemeter, you can use an ammeter and voltmeter and the following equations to get energy:

Power = current x potential difference

Energy transfer = power x time

Skills

1. What is meant by the dependent variable?
2. What is meant by the independent variable?
3. Which type of variable is kept the same?
4. What do we call results that are much higher or lower than expected?
5. How do you calculate a mean?
6. Which type of results do we plot in a line graph?
7. Which type of results do we plot in a bar chart?
8. Do lines of best fit on a graph always have to be straight?

Microscopes

1. Which part of a microscope is needed for magnification?
2. Which part of a microscope is used to focus the image?
3. Which objective lens do you start with?
4. What are the steps to prepare a slide?
5. What are the steps to view a slide?
6. How do you calculate magnification?
7. How do you convert millimetres to micrometers?

Photosynthesis

1. What is independent variable in this practical?
2. What are some control variables?
3. What pattern of results would you expect?
4. How would you make this more valid?
5. How would you make this practical more accurate?

Ecology

1. What is a quadrat?
2. How do you make this study more accurate?
3. What is a transect?

Neutralisation

1. What are the two products of a neutralisation reaction?
2. What pH is neutral?
3. What piece of equipment is used to measure the volume of acid?
4. What name is given to the piece of glassware with a tap at the end of it, used to measure the volume of alkali needed for neutralisation?

Density

1. What is the formula for density?
2. What is a Vernier caliper used for?
3. How do you measure the density of a regular object?
4. What is a Eureka can?
5. What is it used for?

Thermal insulation

1. What will happen the temperature of hot water over time?
2. What impact will an insulator have on this?
3. What is the dependent variable in this practical?
4. What are some control variables in this practical?
5. Why is a lid used?

Radiation

1. What does emit mean?
2. What does absorb mean?
3. Which colours are good emitters of radiation?
4. What sort of water must be used to measure how well a substance emits radiation?
5. Which colours are good absorbers of radiation?
6. What sort of water must be used to measure how well a substance absorbs radiation?
7. What is a control variable in EACH of these practicals?

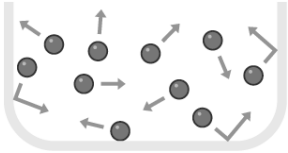
Temperature change in reactions

1. What does endothermic mean?
2. What does exothermic mean?
3. Give an example of an endothermic reaction
4. Give an example of an exothermic reaction
5. How do you increase the accuracy of any practical about temperature change in reactions?

Pressure in gases

The molecules of a gas are in constant random motion.

The temperature of the gas is related to the average kinetic energy of the molecules.

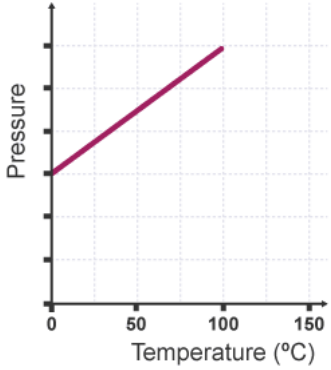


Pressure in a gas is caused by particles bumping into the sides of the container (at right angles).

You can increase the pressure by:

- Increasing the temperature
- Decreasing the volume of the container

Increasing the temperature of a gas, held at constant volume, increases the pressure exerted by the gas.



Recall questions
B1 cell biology

1. Which part of a cell contains genetic material?
2. What is the role of the mitochondria?
3. Give three parts that are present in a plant cell, but NOT in an animal cell?
4. What is a prokaryotic cell?
5. How do you prepare a microscope slide?
6. How do you focus a microscope?
7. How do you calculate the actual size of a cell?
8. What is active transport?
9. What are the stages of the cell cycle?
10. What is osmosis?
11. What is a stem cell?
12. What can stem cells be used to treat?
13. What is a risk of stem cell transplant?
14. What is a meristem?
15. Give an example of a substance that is absorbed by active transport

C8 chemical analysis

1. What is the definition of a pure substance?
2. What is a mixture?
3. Give two examples of mixtures
4. What is a formulation?
5. Give an example of formulation?
6. What is the formula for calculating Rf value?
7. What are the 2 phases of chromatography?
8. How do you identify a pure substance using chromatography?
9. Why do we use a pencil line in chromatography (rather than pen)?
10. What would it mean if a dot did not move from the pencil line in chromatography?
11. What is the test used to identify oxygen?
12. What is the test used to identify hydrogen?
13. How do you identify a pure substance using a chemical test?
14. What is limewater used to identify?

C9 atmosphere

1. What gases are present in the current atmosphere (and what percentage do they each make up)?
2. How did the early atmosphere form?
3. How did oceans form?
4. Why did the concentration of carbon dioxide decrease?
5. How did the concentration of oxygen increase?
6. What is meant by the greenhouse effect?
7. Give two human activities that release CO_2
8. Give two human activities that release methane
9. Describe three consequences of global warming
10. Give three ways we can reduce our carbon footprint
11. Which pollutants are produced by incomplete combustion?
12. Why is carbon monoxide known as the silent killer?
13. What problem does sulfur dioxide cause?
14. What problem does nitrogen oxide cause?
15. How is nitrogen oxide formed?

P3 particle model

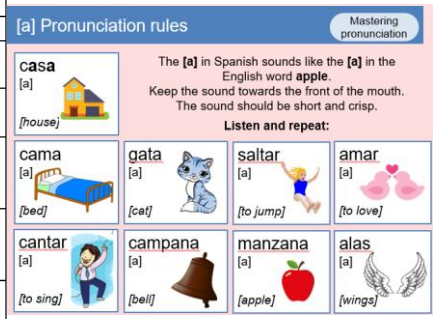
1. What is the formula for calculating density?
2. How do you calculate the density of a regular shaped object?
3. How do you calculate the density of an irregular object?
4. What is freezing?
5. What is condensing?
6. What change of state is from solid to liquid?
7. What change of state is from solid to gas?
8. What is meant by 'melting point'?
9. What happens to temperature during a change of state?
10. What is internal energy?
11. What causes pressure in gases?
12. How can you increase the pressure in a gas?
13. What units are used for specific latent heat?
14. What is the meaning of specific heat capacity?
15. What units are used for specific heat capacity?

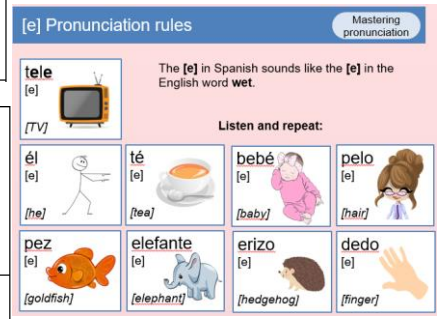
Phonics

Spanish is a **phonetic language**. This means that apart from some exceptions, letters in Spanish are always pronounced in the same way, and unlike English, you mostly pronounce all the letters in a word.

j	sound in back of throat	ojo (eye) jardín (garden) conejo (rabbit)
rr	a 'rolled' sound	perro (dog) marrón (brown)
z	a 'th' sound	zona (zone/area) pez (fish) zapato (shoe)
qu	is pronounced as a 'k' sound	quince (15) ¿Qué tal? (How are you?) Quiero (I want)
v	v is pronounced more like a 'b' sound	ver (to see) veinte (20) verde (green)
ll	is pronounced like an English 'y'	me llamo (I am called) caballo (horse) amarillo (yellow)
ñ	ñ is pronounced like the 'ny' in the English word 'ca*ny*on'	español (Spanish) cumpleaños (birthday) España (Spain)
ce/ci	c (when followed by e or i) is a 'th' sound.	cerca (near) once (11) ciclismo (cycling) cinco (five)

ca/co/cu	the letter c makes a hard 'k' sound before -a, -o and -u.	casa (house) cucaracha (cockroach) comer (to eat) chocolate (chocolate) cuerpo (body)
ge/gi	The letter g makes a soft 'j' sound before -e and -i	genial (great) gente (people) imaginar (to imagine) gimnasio (gym)





Phonics continued

ge/gi	The letter g makes a soft 'j' sound before -e and -i	genial (great) gente (people) imaginar (to imagine) gimnasio (gym)
ga/go/gu	The letter g makes a hard 'g' sound before -a, -o and -u.	gato (cat) ganar (to win) gol (goal) me gusta (I like) guitarra (guitar)

a	a is pronounced like 'ah'	alto (tall)
e	e is pronounced like 'eh'	elefante (elephant)
i	i is pronounced like 'ee'	idea
o	o is pronounced like 'oh'	sofá(sofa)
u	u is pronounced like 'uuh'	universo (universe)

[ll] Pronunciation and practice

Mastering pronunciation

llorar [ll] *[to cry]*

llave [ll] *[key]*

lluvia [ll] *[rain]*

llama [ll] *[llama]*

galletas [ll] *[biscuits]*

The sound [ll] is pronounced like the English [y] in [yard].

Listen and repeat:

camello [ll] *[camel]*

silla [ll] *[chair]*

anillo [ll] *[ring]*

gallina [ll] *[hen]*

calle [ll] *[street]*

[i] Pronunciation rules

Mastering pronunciation

iglú [i] *[igloo]*

The **[i]** in Spanish sounds like the **[ee]** in the English word **m**ee**t**.

Listen and repeat:

iguana [i] *[iguana]*

mi [i] *[my]*

río [i] *[river]*

índice [i] *[index finger]*

izquierda [i] *[left]*

iglesia [i] *[church]*

dinero [i] *[money]*

tijeras [i] *[scissors]*

[o] Pronunciation rules

Mastering pronunciation

ojo [o] *[eye]*

The **[o]** in Spanish sounds like the **[o]** in the English word **hot**.

Listen and repeat:

Remember that letters can be said differently dependent on where you live, eg: **z**

oso [o] *[bear]*

pozo [o] *[well]*

ola [o] *[wave]*

loro [o] *[parrot]*

coco [o] *[coconut]*

loco [o] *[crazy]*

flor [o] *[flower]*

como [o] *[I eat]*

[u] Pronunciation rules

Mastering pronunciation

tú [u] *[you]*

The **[u]** in Spanish sounds like the **[oo]** in the English word **food**.

Listen and repeat:

uvas [u] *[grapes]*

uniforme [u] *[uniform]*

uña [u] *[fingernail]*

pulpo [u] *[octopus]*

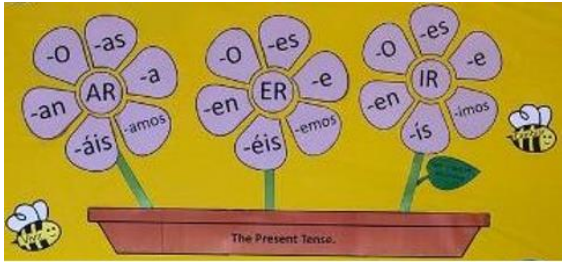
brújula [u] *[compass]*

música [u] *[music]*

ukelele [u] *[ukelele]*

luna [u] *[moon]*

The Basics – Verbs and Subject Pronouns



abandonar	(to) abandon, leave (a place)
abrazar	(to) hug
amenazar	(to) threaten
apoyar	(to) support
atraer	(to) attract
besar	(to) kiss
celebrar	(to) celebrate
comprender	(to) understand
comunicar	(to) communicate
confiar	(to) trust, confide
conocer	(to) know (person, place), meet (for the first time)
criticar	(to) criticise
cuidar	(to) take care of
discutir	(to) argue, discuss
engañar	(to) trick, deceive
gritar	(to) shout
llorar	(to) cry
morir	(to) die
nacer	(to) be born
pasar	(to) pass, spend (time), happen
pegar	(to) hit, stick (on)
perdonar	(to) forgive, excuse
proteger	(to) protect
regalar	(to) give (as a gift)
respetar	(to) respect
romper	(to) break
trabajar	(to) work

Key information

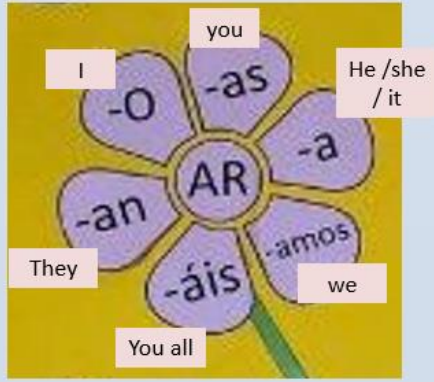
Subject pronouns tell us who is doing the action.
There are only 3 subject pronouns:

- I
- You
- He / she / it

These 3 have a plural form:

- I – we
- You – you all (plural)
- He / she / it – they

	Singular (1)	Plural (2+)
1st	I	We
2nd	You	You all
3rd	He / she / it	They



Most important: The Spanish do not tend to use the Subject pronoun; they take off the last 2 letters of the infinitive and use new endings instead. This shows **WHO** is doing the action.

1 Nouns

Masculine and feminine nouns

All Spanish nouns are either masculine or feminine.

- In the singular, masculine nouns are introduced with *el* or *un*:

  el *padre* — ***the*** father
  un *libro* — ***a*** book

- Feminine singular nouns are introduced with *la* or *una*:

  la *madre* — ***the*** mother
  una *mesa* — ***a*** table

- Some nouns have two different forms, masculine and feminine:

  un amigo — a male friend
  una amiga — a female friend
  un profesor — a male teacher
  una profesora — a female teacher

- Some nouns stay the same for masculine and feminine.

  el artista — the male artist
  la artista — the female artist

- Some nouns which relate to jobs such as ***el jefe*** (the boss) usually stay the same in the feminine form, i.e. ***la jefe***. However, the use of feminised forms of the noun, in this instance ***la jefa***, have become increasingly widespread.

- Infinitives can be used as nouns:

  Leer es mi pasatiempo favorito.
  Reading is my favourite hobby.

- The process of turning a verb or adjective into a noun is called nominalisation. Masculine adjectives are used for languages:

  francés ⟶ (el) francés (French)

- Adjectives of nationality follow the same pattern. The adjective must match the gender of the noun.

  la inglesa — the English person (female)
  los españoles — Spanish people

- Adding -ito or -ita to a noun changes the meaning of the noun to be 'little'.

  librito — a little book

Singular and plural forms

As in English, Spanish nouns can either be singular (one) or plural (more than one).

- Nouns ending in a vowel add *–s* for the plural.

  un año ⟶ ***dos años***
  one year ⟶ two years

- Nouns ending in a consonant add *–es* for the plural.

  un país ⟶ *dos país**es***
  one country ⟶ two countries

- For nouns ending in *–z*, change the *z* to *c* and add *–es*:

  una luz ⟶ *dos luc**es***
  one light ⟶ two lights

- If a noun ends in *–ión*, drop the accent and add *–es*:

  una situación ⟶ *dos situaciones*
  one situation ⟶ two situations

The Definite Article (the)

The word for 'the' depends on whether the noun it goes with is masculine, feminine, singular or plural.

	masculine singular	feminine singular	masculine plural	feminine plural
The	el	la	los	las

The Indefinite Article (a / an OR some)

The word for 'a / an' and 'some' also depends on whether the noun it goes with is masculine or feminine, singular or plural.

	masculine singular	feminine singular	masculine plural	feminine plural
a / an some	un	una	unos	unas

Spanish	English
la familia	family
el hermano	brother
la hermana	sister
la hija	daughter, female child
el padre	father
la madre	mother
el abuelo	grandfather
la abuela	grandmother
la niña	young girl, child
el tío	uncle
la tía	aunt
el perro	dog
el animal	animal
el bebé	baby
el hijo	son, male child
el hombre	man
el niño	little boy, male child
el padrastro	stepfather
la madrastra	stepmother
el primo	cousin
el gato	cat
el toro	bull
el pájaro	bird
el caballo	horse
el vecino	neighbour (m)
el chico	boy
la chica	girl

¡Hola! *Hello!*	**¿Cómo te llamas?** **¿Cuál es tu nombre?** *What are you called?*	Me llamo Emma. *I am called Emma.*	¿Y tú? *And you?*	Me llamo Alí. *I am called Alí.*
¿Cuál es tu apellido? *What is your surname?*		Mi apellido es Smith *My surname is Smith*	**¿Cómo se escribe tu apellido?** *How do you spell your surname?*	Se escribe S M I T H *It is spelled S M I T H*

¿Qué tal? *How are you?*	
Fenomenal. *Great.* Bien. *Fine.* Regular. *Not bad.* Fatal. *Awful.*	¿Y tú? *And you?*

¿Cuántos años tienes? *How old are you?*		
Tengo *I have*	Once / doce / trece / catorce / quince 11 / 12 / 13 / 14 / 15	años *years*

¿Dónde vives? *Where do you live?*	**¿Cuál es tu dirección?** *What is your address?*
Vivo en Brasil. *I live in Brazil.* Vivo en Chile. *I live in Chile.* Vivo en Londres. *I live in London.* Vivo en Mallorca. *I live in Majorca.*	Mi dirección es Calle Andrea Doria, 11, 2B. *My address is 11 Andrea Doria Street, on the second floor, apartment B.*

Diría que *I would say that* **Mis amigos dirían que** *My friends would say that* **Mis padres dirían que** *My parents would say that* **Creo que –** *I think that* **En mi opinión** *In my opinion*	**Siempre** *always* **a veces** *sometimes* **nunca** *never* **casi nunca** *rarely* **a menudo** *often*	**Soy** *I am*	**aburrido/a** – *boring* **alegre** – *happy* **antipático/a –** *unfriendly* **divertido** – *fun* **generoso** – *generous* **listo/a** – *smart* **perezoso/a** – *lazy* **raro/a -** *weird* **simpático/a** – *nice* **sincero/a** – *honest* **tímido/a –** *shy* **tonto/a** – *silly* **torpe -** *clumsy*	**pero –** *but* **sin embargo** *however* **por otra parte** *on the other hand*	**siempre** *always* **a veces** *sometimes* **nunca** *never* **casi nunca** *rarely* **a menudo** *often*	**soy** *I am*	**aburrido/a** – *boring* **alegre** – *happy* **antipático/a –** *unfriendly* **divertido –** *fun* **generoso –** *generous* **listo/a –** *smart* **perezoso/a** – *lazy* **raro/a** - *weird* **simpático/a** – *nice* **sincero/a –** *honest* **tímido/a –** *shy* **tonto/a –** *silly* **torpe -** *clumsy*

¿Cuántas personas hay en tu familia?	En mi familia hay ____ personas.
How many people are there in your family?	In my family, there are _____ people.

Hay	There is…
un bisabuelo	a great grandfather
un abuelo	a grandfather
un padre	a father
un padrastro	a step-father
un tío	an uncle
un hermano	a brother
un hijo	a son
un primo	a boy cousin
una bisabuela	a great grandmother
una abuela	a grandmother
una madre	a mother
una madrastra	a step-mother
una suegra	a mother-in-law
una tía	an aunt
una hermana	a sister
una hija	a daughter
una prima	a girl cousin

los pronombres posesivos Possessive pronouns	
Mi / Mis	my
Tu / tus	your
Su / sus	his / her / their
Nuestro / a / os / as	our
Vuestro / a / os / as	your (plural)

Singular and Plural	
Mi padre	*my father*
Mis padres	*my parents*
Nuestro abuelo	*our granddad*
Nuestra abuela	*our grandma*
Nuestros abuelos	*our grandparents*

Verbos Claves – Key Verbs	
Hay	There is / are
Tengo	I have
Tiene	He / she has
Tienen	They have
Se llama	is called
Se llaman	are called
Es	is
Son	are

Mi padre / madre hermana / hermano madrastra / padrastro amigo / amiga abuelo / abuela tío / tía / primo / prima	 se llama ... 	Es (muy) ... y (bastante) alegre. divertido/a. feliz. nervioso/a. fuerte. gracioso/a. perezoso/a. listo/a. responsable.	… independiente. simpático/a. práctico/a. activo/a. serio/a. artístico/a. tranquilo/a. trabajador/a.

Me llevo bien con Salgo con Discuto con Me peleo con			mi(s)	madre(s). padre(s). madrastra. padrastro. abuelo(s). abuela(s). tío(s). tía(s). hermano(s). hermana(s). primo(s). prima(s). amigo(s). amiga(s).
Cuido a Respeto a				
Voy	al cine al estadio al fútbol al restaurante de vacaciones	con		
Hago	deporte ejercicio actividades			

Key verb	Family Member	Connective	Time Phrase	Reason
Me llevo bien con *I get along well with* **Me llevo superbien con** *I get along super well with* **Me llevo mal con** *I get along badly with* **Me peleo con** *I fight with* **Me divierto con** *I have fun with*	**mis padres -** *my parents* **mi mamá / papá -** *my mum/dad* **mi abuelo / abuela** *my grandad / grandma* **mi hermano / a** my *brother / sister* **mi primo / a -** *my cousin* **mi madrastra / padrastro my** *stepmum / stepdad* **mi familia acogida** *my foster family*	**porque** *because* **ya que** *since* **dado que** *given that*	**siempre –** *always* **a veces -** *sometimes* **nunca –** *never* **casí nunca -** *rarely*	**me ayuda(n)** *helps me* **me hace(n) reír** *makes me laugh* **me critica(n)** *criticises me* **me molesta(n)** *annoys me* **me da(n) lo que quiera** *gives me whatever I want*

Es	un hombre una mujer un chico una chica un gato	alto/a. bajo/a. delgado/a. gordo/a. feo/a. guapo/a. pequeño/a.
Tiene	el pelo	corto / largo. blanco / negro. moreno / rubio. rojo / gris.
	gafas.	

Creo que Lorena / Lucía	es una chica	alegre. divertida. feliz. nerviosa. fuerte. graciosa.	perezosa. lista. responsable. trabajadora. independiente. simpática.	práctica. activa. seria. artística. tranquila.
Creo que Jaime / José	es un chico	alegre. divertido. feliz. nervioso. fuerte. gracioso.	perezoso. listo. responsable. trabajador. independiente. simpático.	práctico. activo. serio. artístico. tranquilo.

El amigo ideal La amiga ideal	es	paciente divertido/a simpático/a alegre gracioso/a	y	te escucha. te hace reír. te entiende. te ayuda si tienes un problema. siempre contesta tus mensajes de texto. guarda tus secretos. siempre está ahí para ti. comparte tus intereses. no se pelea contigo.

Es una familia	homoparental. monoparental. nuclear. sin hijos. extendida. reconstituida. tradicional.	Hay	un padre / dos padres una madre / dos madres un abuelo una abuela	y	un hijo / dos hijos. una hija / dos hijas.

¿Tienes mascotas?

¿Cómo es tu mascota?

Sí, tengo **No, no tengo**	**un perro** – *a dog* **un perrito** – *a puppy* **un gato** – *a cat* **un gatito** – *a kitten* **un conejo** – *a rabbit* **un pez** – *a fish* ****** **un ratón** – *a mouse* **un pájaro** – *a bird* **un papagayo** – *a parrot* **un caballo** – *a horse* **un animal** – *a pet* **Blue vocab – Only these words to appear on L & R exams**	**con**	**un cuerpo** – *a body* **el pelo** - *fur*	**blanco** - white **negro** - black **amarillo** - yellow **rojo** - red	**azul** - blue **marrón** - brown **gris** - grey **rosa** - pink **verde** - green **naranja** - orange
	una tortuga – *a tortoise* **una rata** – *a rat* **una paloma** – *a dove* **una araña** – *a spider* **una mascota** – *a pet*		**una cola** – a *tail*	**blanca** **negra** **amarilla** **roja**	**azul** **marrón** **gris** **rosa** **verde** **naranja**
	¡Ojo! **To make nouns plural, just add an "s". If they end in a consonant, add "es"** **BUT pez - peces**		**unas patas** – *paws* **unas orejas** – *ears*	**blancas** **negras** **amarillas** **rojas**	**azules** **marrones** **grises** **rosas** **verdes** **naranjas**

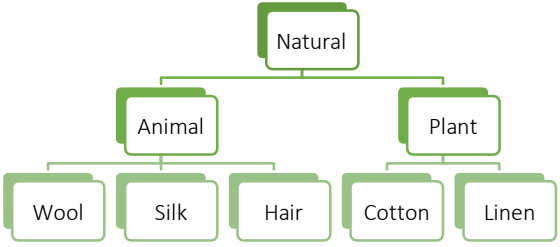
English	Verb	He / she _____ me	They _____ me
__ _____	**Ayudar**	Me ayuda	Me ayudan
__ _____	**Apoyar**	Me _____	Me _____
__ _____	**Escuchar**	__ _____	__ _____
__ _____	**Juzgar**	__ _____	Me juzgan
To make laugh	**Hacer reir**	__ _____	__ _____
To make happy	**Hacer feliz**	__ _____	__ _____
__ _____	**Criticar**	Me critica	__ _____
To give advice	**Dar Consejos**	__ _____	__ _____
__ _____	**Molestar**	__ _____	Me molestan
To give me what I want	**Dar lo que quiero**	__ _____	__ _____
To accept me as I am	**Aceptar como soy**	__ _____	__ _____

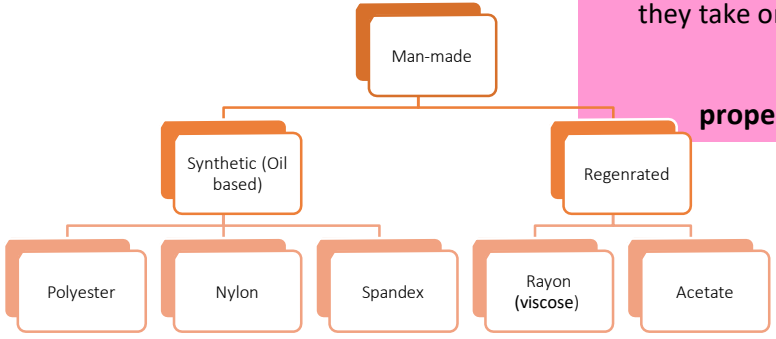
Theme 1 - Identity & Relationships with Others

¿Cómo te llamas? / ¿Cuál es tu nombre? What are you called?	
¿Cuál es tu apellido? What is your surname?	
¿Cómo se escribe tu apellido? How do you spell your surname?	
¿Dónde vives? Where do you live?	
¿Cuál es tu dirección? What is your address?	
¿Cuántos años tienes? How old are you?	
¿Cuándo es tu cumpleaños? When is your birthday?	
¿Cuántos personas hay en tu familia? How many people are there in your family?	
¿Te llevas bien con tu familia? Do you get on well with your family?	
¿Cómo es tu (mejor amigo / major amiga)? What is your (best friend) like?	
¿Tienes mascotas? Do you have pets?	

Textiles

In Year 9 you will learn both **constructive** and **decorative** skills. We will sample the skills and then create a variety of products to put our knowledge and skills to the test!





What are Fibres?

A fibre is thin hair-like structure that can be either **long** or **short**.

Short fibres are called **staple** fibres.

Long fibres are called **filament** fibres.

Staple fibres need to be spun into yarns and tend to be slightly hairy in appearance.

Filament fibres are long and give a smooth shiny finish to fabrics.

All fabric come from fibres. On their own they are weak but when twisted into yarns they take on different **properties**.

Keyword	Definition
Seam Allowance	Seam allowance is the area between the fabric edge and the stitching line on two pieces of material being sewn together.
Hem	The edge of a piece of cloth or clothing that has been turned under and sewn.
Toile	An early version of a finished garment made up in cheap material so that the design can be tested and perfected.
Reverse stitch	The stitching is sewn in the opposite direction, this knots the thread at both ends.
Pattern	A pattern is used as a template to cut out fabric that matches the required specifications to sew a garment.
Appliqué	Appliqué is decorative needlework in which pieces or patches of fabric in different shapes are sewn down onto a larger piece of fabric.

Textiles - Questions

1.What is the main difference between staple fibres and filament fibres?

2.Why do staple fibres tend to have a slightly hairy appearance?

3.How do filament fibres affect the finish of fabrics?

4.What happens to fibres when they are twisted into yarns?

5.What is seam allowance and why is it important in sewing?

6.What is the purpose of making an early version of a finished garment in cheap material?

7.Why is the stitching sewn in the opposite direction at the ends of a seam?

8.How is a pattern used in the process of sewing a garment?

9.What is appliqué and how is it used in textile design?

Find at least 6 other different surface techniques and decorative skills in Textiles:

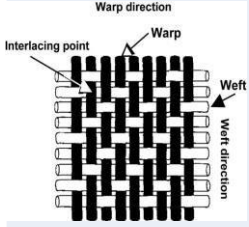
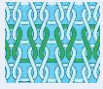
Where can Natural fibres come from?

_ _ _ _ _ _ & _ _ _ _ _ _ _

Textiles

Monomer > Polymer
A **Monomer** is an organic compound used to make a chain of **Polymers**.
A **Polymer** is a high-molecular-weight organic compound, natural or man-made, consisting of many repeating simpler chemical units or molecules called monomers.
Examples **of natural polymers** are proteins (polymer of a sugar molecule). An example of a **synthetic polymer** is PVC (a polymer of a

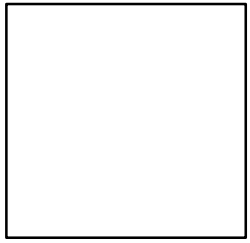
Keyword	Definition
Embroidery	The art or process of forming decorative designs with hand or machine needlework.
Open Seam	Where the seam allowance, the piece of fabric between the edge of the material and the stitches, is visible.
Closed Seam	Opposite to an open seam, the seam allowance is pressed the same way and stitched together as one.
Batik	Batik is an Indonesian technique of wax-resist dyeing applied to the whole fabric.
Sublimation	Sublimation printing transfers the dyes onto the fabric by using a heat press, meaning the ink and the fabric are now one item, rather than the dye sitting on the fabric to simply wash off.
CAD	Computer-aided design is the use of computers to aid in the creation, modification, analysis, or optimization of a design.
CAM	Computer Aided Manufacturing (CAM) is the use of software and computer-controlled machinery to automate a manufacturing process.

Woven	Knitted	Bonded
The yarn that runs **horizontally** or from side to side across the fabric is called the **weft** yarn.	Knitted fabrics are made from interlocking loops of yarn. There are **two** main types of knit	**Dry Laid** – a web of fibres is laid in a drum and hot air is injected to bond the fibres together.
The yarn that goes **vertically** or along the length of the fabric from the top to the bottom is called the **warp** yarn.	Weft Knit- In **weft** knitting the loops of yarn are linked **across the width** of the fabric.	**Wet Laid** – a web of fibres is mixed with a solvent that softens the fibres so that they stick together.
The warp yarn is also called the **straight grain**.	Warp Knit -In **warp** knitting the loops are linked in a **vertical direction.**	**Direct Spun**- the fibres are spun on to a conveyor belt and glue is sprayed on to them to make them stick together.
	Weft Knit  Warp Knit 	Bo  non-woven

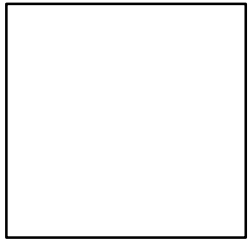
Textiles - Questions

1. What is a monomer and how does it relate to a polymer?
2. Can you give an example of a natural polymer and a synthetic polymer?
3. What is embroidery, and how is it different from regular sewing?
4. Can you name some common tools and materials used in embroidery?
5. How do you think embroidery can be used to personalize clothing or accessories?
6. What is a closed seam, and how is it different from an open seam?
7. What is batik, and which country is it traditionally associated with?
8. How does sublimation printing make the ink and fabric become one item?
9. Can you think of some products that might use sublimation printing?
10. What does CAD stand for, and what is its purpose?
11. What does CAM stand for, and how does it help in manufacturing?
12. Can you give an example of a product that might be made using CAM technology?

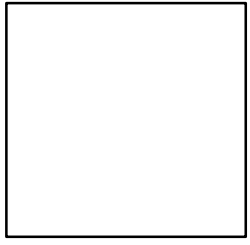
Draw out the three different constructions of fabric:



Woven



Knitted



Bonded