Knowledge Organiser

Year 11

Cycle 3

Name:

Inspiring Excellence

Year 11 Cycle 3 Knowledge Organiser Contents Page

Using your Knowledge Organiser for homework

- Your Knowledge Organiser contains the essential knowledge that every student must know.
- Regular use of the Knowledge Organiser helps you to recap, revise and revisit what you have learnt in lessons.
- The aim is to help remember this knowledge in the long term.
- You will use the Knowledge Organiser to help learn during homework.
- You will be assessed on the knowledge from your Knowledge Organiser; the more you revisit information the more likely it will be remembered for lessons, assessments and exams.

- For each homework you will be asked to look at a particular section of your Knowledge Organiser.
- Make sure you follow the homework timetable below so that you do the right homework for the right subjects each day.
- Each day (Monday to Friday) you will study 2 subjects for 30 minutes each. You are also expected to spend 30 minutes per day reading.
- All Knowledge Organiser homework is completed in your blue Knowledge Workbooks
- All Maths homework is completed on SPARX and must be 100% completed each week.

Homework Timetable Year 11

	Monday	Tuesday	Wednesday	Thursday	Friday
Subject 1	Science	Maths	Geog/History	Option Block F	Maths
Subject 2	English	Option Block E	English	Science	Option Block G

How to use your Knowledge Organiser

In your blue knowledge book you will always write the date, subject heading and ensure that they are underlined with a ruler.

Style 1: The Cover – Write – Check method

Cover

Write

Check

1. Study the relevant section of your Knowledge Organiser for several minutes.
2. Cover the Knowledge Organiser.
3. In your blue book, write out what you can remember.
4. Check the Knowledge Organiser to see if you got it right.
5. Correct any mistakes in purple pen.
6. Repeat the process – even if you got it 100% correct.
7. Complete sections that you have previously studied using the same process.

Style 2: Free recall

1. Pick a section of the Knowledge Organiser you have studied recently.
2. Without looking at the Knowledge Organiser write down everything you can remember about the topic.
3. Check the Knowledge Organiser to see how much you got right.
4. Correct any mistakes and add any missing parts in purple pen.

Style 3: Elaboration

1. Once you have completed the Cover – Write – Check method, add any additional details you can to your notes.
2. Remember your Knowledge Organiser only contains the core knowledge, there is much to learn beyond it so practise adding more detail when you can.

Art

A. Visual Elements Keywords

Line	Line is the path left by a moving point. A line can be horizontal, diagonal or curved and can also change length.
Shape	A shape is an area enclosed by a line. Shapes can be geometric or irregular.
Form	Form is a three dimensional shape, such as a cube, sphere or cone.
Tone	This refers to the lightness or darkness of something. This could be a shade, or how dark or light a colour appears.
Texture	This is to do with the surface quality of something. There are two types of texture: Actual texture really exists, so you can feel it or touch it; Visual texture is created using marks to represent actual texture.
Pattern	A design that is created by repeating lines, shapes, tones or colours.
Colour	Red, yellow and blue are primary colours, which means they can't be mixed using any other colours.

B. Key Knowledge 1: AO1 – TICK OFF ONCE DONE

- ❑ I have created a double page mind map and mood board about my theme
- ❑ I have completed two critical studies with in depth annotation using my booklet for guidance
- ❑ I have completed some further research around my theme
- ❑ I have added in further critical studies as my ideas have developed and changed

AO2 – TICK OFF ONCE DONE

- ❑ I have completed one type of collage work
- ❑ I have experimented with drawing in monoprint
- ❑ I have experimented with colour
- ❑ I have experimented with printmaking, textiles or 3D work
- ❑ I have refined two of the above with a further experiment

AO3 – TICK OFF ONCE DONE

- ❑ I have completed a photoshoot
- ❑ I have drawn from life
- ❑ I have drawn from found images and my own photos
- ❑ I have drawn in pencil – tonal, Pen – mark making and tried continual and blind drawing.

AO4 – TICK OFF ONCE DONE

- ❑ I have written a statement of intent
- ❑ I have sketched and annotated thumbnails of final outcome ideas
- ❑ I have refined work and practiced elements of my final piece
- ❑ I have a final outcome that is meaningful, clearly relates to my developments and shows my best skills.

ART & DESIGN Project – YEAR 11. Groups, types and places.
Threshold Concept -#2 Art communicates, in every sense.
#5 Artists play – with ideas, materials and failures
#6 Art engages heads, hands and heart

C. Expert Modelling:


Katie Scott


Kurt Jackson


David Hockney


Michael Wolf


Annette Messager


Alexandra Dillon

What Visual Elements can you see in this work?

E. IDENTIFYING SUCCESSES IN YOUR WORK

- Identify three formal elements in your work and explain why they are important
- Explain how you will refine a process further to develop your practical work
- Identify a gap or weakness you would like to improve.

D. Wider thinking, reading and doing:

- Create a conceptual page
- Do a large abstract experimental piece
- Contact an artist or organisation

Knowledge organiser – Enterprise – Component 2 – Planning for and pitching an enterprise activity.

Have you ever thought about running your own business? Do you believe you would be up for the challenge? In this component you will come up with an idea for your own enterprise activity.

SCAN ME

Learning Aim A

What is an entrepreneur?
A person who is prepared to take a risk to set up a new enterprise in order to make a profit.

Goods – Physical products that can be purchased
Services – Acts or tasks that can be purchased

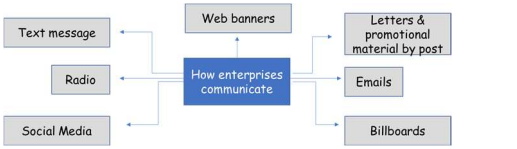
Innovation
When a new product or process is introduced to the market.

Generating ideas
Ideas come from risks that entrepreneurs are willing to take. These can come from
- Solving problems
- Thought showers
- Importing an idea from abroad
- Professional skills
- Experiences

Considerations when choosing an idea
- Resources available
- Financial forecast
- Costing and pricing
- Methods of communication and promotion
- Potential customers
- Skills of people in the group

SCAN ME

Communication
Enterprises need to communicate with customers to:
- Keep them informed
- Try to increase sales.



Point of Sales (PoS)
Sales promotions found near to /next to the checkout.

Skill
The ability to perform an action well.

Demographic
This relates to the way that a population, market, can be divided up, including age, gender, ethnic background or educational level.

Market segment
A section of the market with common characteristics.

Market segmentation
This allows to enterprise to tailor (match) its goods/service and communications to a specific segment of the market, such as:
- Demographic (age, culture)
- Geographic (location)
- Psychographic (personality, attitude)
- Behavioural (interests, needs)

Physical Resources
- Location
- Materials
- Equipment
- Fixtures & fittings
- Stock
- IT

Wages
Calculated hourly to pay for work that has been done.

Salary
Fixed annual payment divided into 12 equal monthly payments.

Risk assessment
Identifying potential risks to a business.
Considering the likelihood of them turning into problems.
Judging whether or not the benefits of something outweigh the risks.

Skills audit
The process of identifying what skills are needed and matching them to current skills to identify training and development needs.

Risk averse
Avoiding or being unwilling to take risks.

Target market
The section of the market the enterprise intends to supply.

Financial Resources
- Sources of finance
- Start-up costs
- Running/fixed costs
- Production costs/cost of sales/ variable costs

Break even
The point where income and expenditure (total money spent) are equal.

$$\text{Break Even Units} = \frac{\text{Fixed Costs}}{\text{SP} - \text{VC}}$$

Risks faced by entrepreneurs
- Lack of entrepreneurial skill
- Competitors actions
- Unexpected costs of production
- Sourcing raw materials
- Quality control issues
- Lack of customer interest

Promotional material
Flyers and brochures that help to increase sales and gain business

Revenue
The money coming into the enterprise (income)

Contingency plan
Identify potential risks and possible procedures.

Knowledge organiser – Enterprise – Component 2 – Planning for and pitching an enterprise activity.

Learning Aim B

If you have an idea for a business or product you are likely to want to sell (pitch) that idea to other people so they will invest in your business or buy your product.

Purpose of a pitch
To provide a potential investor or lender with information about the enterprise and convince them that it will be a success.

Pitch
A presentation by one or more people (entrepreneurs) to an investor or group of investors about the nature and details of an idea or start-up. Aimed at persuading a person or business to invest in the enterprise, or loan capital to start up the enterprise.

Techniques
- Presentations
- Speech - 2-10 minutes
- Images
- Facts
- Demonstrations
- Q&A

Elevator pitch
A short description of an enterprise idea, product that conveys the concept in an exciting way that can be understood in a short space of time.
Comes from the idea that the pitch should be short enough to be delivered in the time it takes an elevator (lift) to get from the bottom floor to the top.

Contents of a pitch
- Overview of the idea
- Aims
- The product or service
- Target market
- Competition
- Methods of communication
- Resources
- Finances

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Persuasive pitch

Tell a story
Stories grab people's attention and allow them to put ideas into context.

Focus on the problem being solved
Your audience must understand the features of your product or service and also how they benefit them.

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Delivering a professional pitch
Professionalism - You must act in a way that is appropriate for a professional in a certain occupation, e.g. a doctor must be courteous and respectful to patients.
Dress – it is traditional to wear a suit although some companies are more relaxed.
Greetings – most cultures greet with a hand shake and a "Hello" or "Good morning/afternoon".
Positive attitude – positivity is infectious, if you are enthusiastic, happy and smile then your audience will be positive too.
Rehearsing the pitch – being fully prepared is important, nerves are natural but rehearsing will build your confidence.

Rhetorical questions
These make the audience think and reflect on their own attitudes, opinions and feelings.

Repetition
Keep your pitch memorable, repeat key phrases such as your strap line or the main reason your idea is unique.

Use the rule of 3
People find it easier to remember things in threes. Therefore, when communicating the benefits of your idea, the reasons why people should invest, or the things that make your idea unique, always have three.

Visual aids (presentation, text & graphics, handouts)
Allows the presenter to communicate far more information rather than just talking.

Business Plan
Formal document used to outline details of a business start-up.

Professionalism
The competency, skill and behaviours expected of someone who is a professional.

The needs of the audience
Engaging and involving your audience.
- Closed questions
- Ask the audience to imagine something
- Use humour
- Give a task/exercise to do

Communication skills
- Tone, pace and volume
- Body language and gestures
- Eye contact

Responding to questions
Anticipating questions that could be asked will help you answer them.
Listen to the question carefully
Use business terminology in the answer.

Knowledge Organiser: Networks

KEY VOCABULARY	
Stand Alone	A single machine, not connected to another
Network	A collection of machines which can communicate with one another
Transparent	The end-user has no need to know the specifics of a network's infrastructure
Node	A device on a network (PC or other device)
Link	The connections between nodes
LAN	Local Area Network (Single location)
WAN	Wide Area Network (Multiple connected locations)
VPN	Virtual Private Network
UTP	Unshielded Twisted Pair – a type of cable
Client	The user machines on a network
Server	The central 'controller' machine on a network, including main data storage
P2P	Peer-2-Peer. A network without a server.
WAP	Wireless Access Point
NIC	Network Interface Controller
Router	Controls the sending of data around a network
Hub	A central connection for a small network, which broadcasts all data to all clients
Internet	A worldwide collection of networks

WHAT IS A NETWORK?

A network is where two or more computers are joined together to share files and resources.

There are many reasons to create networks of computers, and increasingly few reasons not to.

SCAN ME

Advantages	Disadvantages
Communication between users Sharing of files Sharing of peripheral devices such as printers and scanners You are able to monitoring user activity Access control or other security features Centralised administration of machines Multiple work stations available for users Possible to distribute workload for large tasks	Higher cost than single machines Requires additional hardware Requires administration Security risks—Open to attacks System failure could lead to downtime

Local Area Network (LAN)

A LAN operates on a single site such as a school or small business using their own cabling systems

SCAN ME

Wide Area Network (WAN)

- Any network in which the computers communicate using resources supplied by a "third party carrier" such as British Telecom, is a Wide Area Network
- Often under collective or distributed ownership
- A WAN uses cables, telephone lines, satellites and radio waves to connect, usually spread over a wide geographical area

PERSONAL AREA NETWORK (PAN)

- Personal Area Network centred around a single user
- Bluetooth used to connect devices
- Tethering devices – creating your own personal hotspot with your mobile phone, to connect other devices such as tablets

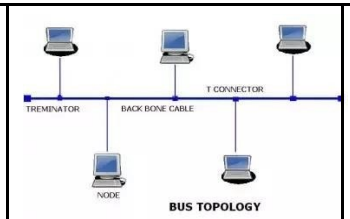
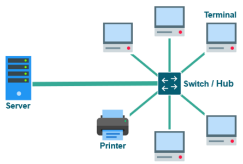
Tethering

- Tethering means linking devices using Bluetooth
  - This creates a localised personal area network
  - This may enable one device to use another's 3G Internet connection by creating a personal hotspot

	Benefits	Risks
Wired	• Faster connection • Higher bandwidth • Greater security	• Cables can be hazardous and unsightly • Not all devices can connect via cable • Can be expensive to set up
Wireless	• No wires • Easy to connect new devices • Can be used freely within range	• Connection can be slower • Subject to interference from walls, objects and other electronic devices • Less secure

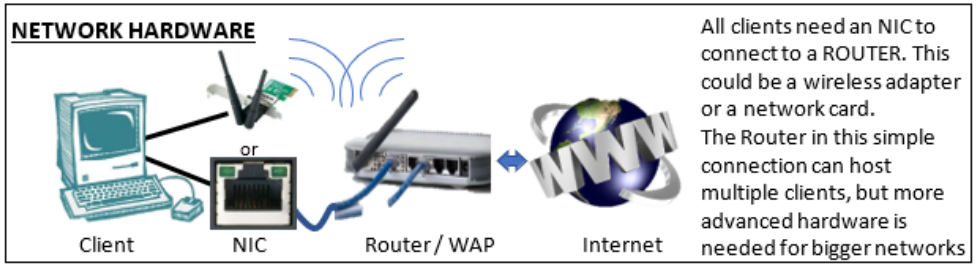
GCSE Computer Science : **Knowledge Organiser: Networks**

Network topology

Bus		Bus or Line topology is a network where all nodes are connected to a single cable (backbone).	Works well with small networks Easiest option for connecting nodes with shared peripherals Least costly in terms of hardware and cabling	Difficult to fault test because who network crashes when there are errors Additional devices slow down the network
Star		Each node connects to a hub or switch. A central machine acts as **server** whilst the outer nodes are **clients.**	Centralised management through the server Easy to add more machines to the network If 1 machine fails, the others are unaffected	Potentially higher set up costs, especially in server and switch set ups. Central server determines the speed of the network and the number of possible nodes If the server fails then the network fails

SCAN ME

KEY VOCABULARY	
WAN	Wide Area Network
VPN	Virtual Private Network
Client	The user machines on a network
Server	The central 'controller' machine on a network, including main data storage
Internet	A worldwide network of networks
DNS	Domain Name Server
Hosting	Storing a file on a web-server for access via the internet
Cloud	A service which is stored remotely
TCP/IP	Transmission Control Protocol / Internet Protocol. These are the standards that allows network nodes to communicate with one another on the internet
WWW	World Wide Web - Pages of content
email	Electronic mail, sent through the internet
URL	Unique Resource Location



SCAN ME

- **Router**
  - Sends data packets on their way in the best direction

- **Switch**
  - Smart multi-plug adaptor that only sends packets to the intended recipient, using their destination MAC address

Wireless networks come with their own set of risks:

- Theft of bandwidth from neighbouring users within range
- Compromised confidentiality without adequate encryption
- Easier to intercept data or 'hack'

Knowledge Organiser: Networks

Circuit Switching SCAN ME	•When you make a telephone call, a dedicated connection is set up between you and the person you are calling for the duration of the call •With circuit switching, we are building a connection between different locations so that we can then send data over those lines.
Packet Switching SCAN ME	The method in which packets are sent across a network from one router to the next is called **packet switching**. A file is split down into equal packets. It uses the destination IP address to find the recipient's location. The chosen route that the packets take is dependent on the traffic conditions, so it is unlikely that all packets will follow the same route and so they may arrive in an incorrect sequence. This is another reason why the control

Sender's IP address	Recipient's IP address	Protocol used	Packet sequence number	Payload *(the actual data)*	Checksum

WHY LAYER? Layering allows problems to be broken down into small chunks, and then smaller solutions created to specific parts of the problem. These small parts interact in an agreed manner, allowing the solution to be built by different teams or companies.

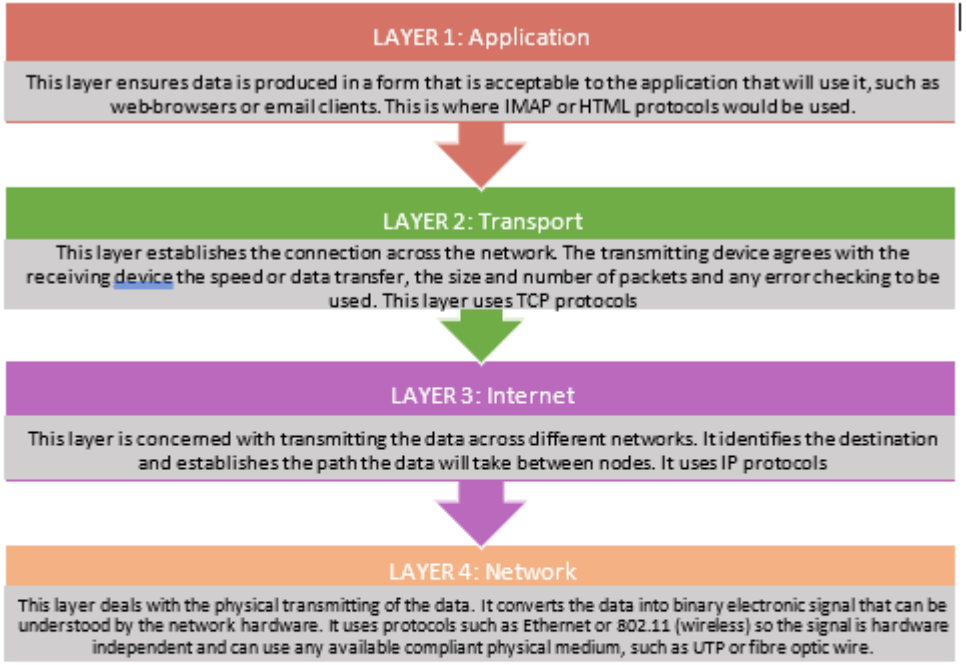
Layering is not unique to computing. In the car industry, a Ford engine might be used with a Jaguar gearbox in a Mazda car. By separating these 'layers', but agreeing on the interface between the layers, each company is free to develop their layer as they see fit, without affecting the other layers. It is also possible to swap one layer out, and replace it with another one – such as swapping an engine for a more powerful one.

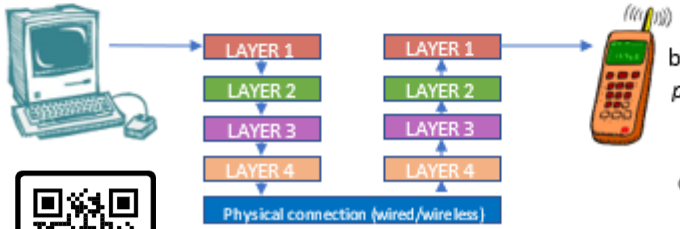
This *interoperability* is important as it allows data (in computing) to be passed from one layer to the next. Interoperability The ability for different systems and software to communicate, exchange data and use the information

In networking, **layering** means to break up the sending of messages into separate components and activities. Each component handles a different part of the communication. This can be referred to as the Transmission Control Protocol/Internet Protocol - TCP/IP - model.

Layering enables standards to be put in place and simply adapted as new hardware and software is developed.

TCP/IP Layering Model





SCAN ME

Data transfer occurs by breaking the file into small *packets*, adding each layer to the packet in order at the sending device, then decoding in reverse order at the receiving device before rebuilding the file.

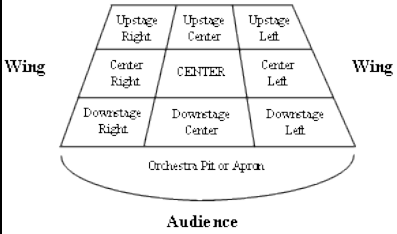
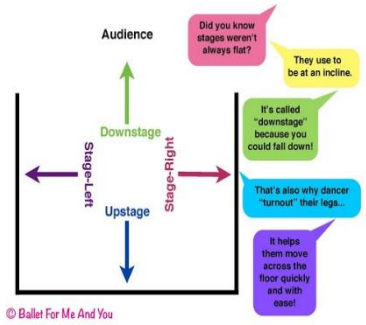
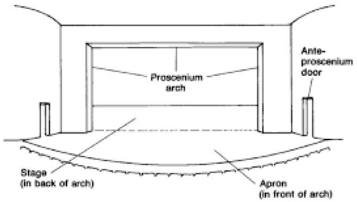
KEY VOCABULARY		
Encryption	Encryption is taking a message and changing the letters in such a way that it is not readable. The correct recipient knows how to unscramble the message and can read the text. Modern encryption is 128bit and secure against brute force attacks **<u>PUBLIC KEY ENCRYPTION</u>** Public Key Encryption is a method of securely sending data over the internet. The recipient's computer uses an algorithm to produce 2 linked keys: a public key and a private key. Alice (the sender) requests Bob's (the recipient) public key. This is shared. Alice uses Bob's public key to *encrypt* the message she wishes to send The encrypted document is sent over the internet – it is secure. When Bob receives the encrypted document he combines his public key with the secret private key. This allows the message to be decrypted and turned back into plain text	
Protocol	The rules and standards that are agreed in order to make it possible for different devices to talk to one another	
IP Address	Each node on a network is given a unique 32 bit address (4x8bits) for example 192.168.0.1 There are 4 billion possible combinations. Geographical location	
DHCP	Dynamic Host Configuration Protocol – this protocol allows the network server to control the allocation of IP addresses	
MAC Address	Media Access Control Unique addresses hard-coded into the network interface controller. Gives the manufacturer, NIC type and unique identifying number. 48 bits displayed as Hex (eg 01-23-45-67-89-ab-cd-ef) MAC Address links to actual individual address	
TCP/IP	Transmission Control Protocol / Internet Protocol	A set of protocols that governs the transfer of data over a network
HTTP	Hyper Text Transfer Protocol	Standards for writing webpages to display content for display
HTTPS	*Hyper Text Transfer Protocol Secure*	*Client-server protocol for requesting (client) and delivering (server) resources, such as HTML, securely*
FTP	*File Transfer Protocol*	*Used to directly send files from one node to another over the internet. Commonly used for uploading files to webservers*
POP	Post Office Protocol	Used by email clients to download email from the remote email server and save it onto the users computer. More or less redundant now, and has been replaced by IMAP
IMAP	Internet Message Access Protocol	An alternative to POP, allowing more control such as the complete control of remote mailboxes
SMTP	Simple Mail Transfer Protocol	An old standard for transmission of email. SMTP can only be used to *push* mail to client machines, whilst both POP and IMAP ae used by clients to *retrieve* mail.

SCAN ME

SCAN ME

SCAN ME

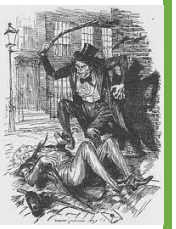
SCAN ME

	Week 1	Week 2	Week 3	Week 4	Week 5
YEAR 11 DANCE – CYCLE 3	**Basic Dance Actions** **Elevation** Jumping from the floor either on your own or with the aid of other people. **Lift** Lifting another dancer off the floor. **Leap** Jumping forward, from one leg to the other with straight legs. **Slide** Sliding either on your feet or your body, to travel whilst being in contact with the floor. **Roll** Rolling over our body to travel on the floor. **Isolation** Only moving a single body part whilst keeping the rest still e.g. head roll. **Characterisation** Creating a character through your movement and dynamic choices. **Parallel** Standing with your feet directly under your hips, with toes facing forwards.	**Higher Level Chorography** **Motif** A collection of movements which link directly to your stimulus. **Development** Changing your motif using levels, actions, travelling and dynamics. **Fragmentation** Changing the order of the movements within your motif. **Retrograde** Perform the chorography backwards. **Spatial Awareness** Knowing where the body parts are in space in relation to the rest of the body. **Co-ordination** The ability to move two or more body parts under control, smoothly and efficiently. **Quality** Different types of energy; sustained, percussive (unconnected), swinging, suspended, collapsed, and vibratory (Shake). **Suspension** A sustained movement where there is a delay of action causing a hanging in the air feeling.	**Performance Skills** **Posture:** The position in which someone holds their body when standing or sitting. Importance of Posture in Dance, your feet should be shoulder width apart, knees slightly bent, pelvis over your legs. Torso, which includes the shoulders, should be over your pelvis. Head level and over your torso, with eyes forward. **Alignment** Body Alignment for Dancers. Graceful posture is the key to beautiful dance movements. Proper body alignment allows the dancer to move freely and lessens the risk of injury. Poor body alignment puts excess strain on muscles and joints, while proper alignment helps to strengthen the dancer's muscles. **Muscle Memory** The dance eventually become nearly automatic, as if you were simply breathing. This is called muscle memory. Muscle memory is essentially a brain-power saver– when you repeat an action for an extended period of time your brain eventually knows what to do when you need to do it.	**Endurance** is the ability of a muscle or group of muscles to perform work for a long time. With endurance, a muscle is able to resist fatigue when a movement is repeated over and over or when a muscle is held in a static contraction. **Stamina** The energy and strength needed to perform physical activities at your best for an extended period of time. **Strength**. Ballet dancers must be strong to perform various dance manoeuvres. Core strength is particularly important for a ballet dancer, as a strong core promotes better balance, helps a dancer stay properly aligned and improves stability. Strong muscles in the core also decrease the risk of injury. **Flexibility** training improves a dancer's posture not only during dance lessons but in life as a whole. It helps a dancer attempt more intricate twists and turns and prevents the occurrence of injury. This group of activities improve the ability of a joint to move easily and attain a wider range of movements.	**Stage positions**   **Staging Types**: Proscenium Arch or End on. Audience at the front of the stage area. 

	Week 6	Week 7	Week 8	Week 9	Week 10
YEAR 11 DANCE – CYCLE 3	**Key Features of Contemporary** **Graham** This style looks at contraction and release of the spine, focusing on how your body moves on the ground and through travelling. **Cunningham** This style believes all movement should originate from the spine – including the 5 movements of the spine with almost every movement. Moving this body part before any other. **Musical Theatre** This is the style most used in theatres today, telling a narrative, performing as characters and often using the words for choreography. **Horton** This style originates from the hips, using sharp angles and strong, straight backs and legs.	**Key Features of Jazz** **Fosse** A jazz style which incorporates a lot of limp wrists and contractions, controlling the movements of your body. **Charleston** This is a style of rock 'n roll jazz – including a lot of fast changing in directions, jumps and lifts. **Hinge** Knees forward with heels off the floor using the stomach to hold you in a straight line. **Pas de Bourree** 3 steps; behind, side, front. **Pivot Turn** The body rotates without traveling. Supported by one or both feet, which swivel in place. **Retire** Thigh is raised with the knee bent so the pointed toes rest beside the supporting knee.	**Jazz Timeline** **1700s** Origin of jazz dance found in movements of African slaves **1800s** Minstrel shows toured portraying African Americans in large troupes **1880s** Vaudeville shows emerged which were a series of separate acts in one show **1910s** The shimmy was invented in 1917 triggered by a song by Spencer Williams **1920s** The Charleston was developed by Kathryn Wilson **1930s** Bill Robinson developed jazz tap through the placement of the feet **1940s** Jack Cole brought jazz to Hollywood movie musicals **1950s** Jerome Robbins produced West Side Story boosting jazz popularity **1970s** Bob Fosse developed his own unique jazz style producing many films **1980s** Jazz craze developed from movies such as Fame, Flash dance and Dirty Dancing **2000s** Commercial jazz developed and films came out such as 'Save the last dance'	**Revision for Knowledge Organiser test:** Pick three sections you feel you need revise. You may choose to look over one week in particular you feel you don't know as well. Use the following to support you with your revision: LOOK COVER WRITE CHECK Draw a picture to represent your chosen word/section. Create flash cards that include your words/sections and their definitions. Put your word/section into a scenario. For example, "I would flex my feet during the style of Jazz". Create a Mind Map 	**Key Vocabulary:** **Fosse** A jazz style which incorporates a lot of limp wrists and contractions, controlling the movements of your body. **Pas de Bourree** 3 steps; behind, side, front. **Alignment** Body Alignment for Dancers. Graceful posture is the key to beautiful dance movements. Proper body alignment allows the dancer to move freely and lessens the risk of injury. Poor body alignment puts excess strain on muscles and joints, while proper alignment helps to strengthen the dancer's muscles. **Retrograde** Perform the chorography backwards. **Elevation** Jumping from the floor either on your own or with the aid of other people. **Leap** Jumping forward, from one leg to the other with straight legs.

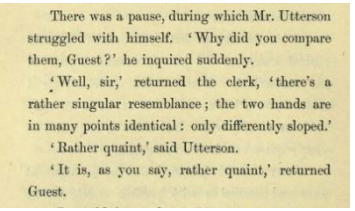
Start with Week 1. Each week, complete the next colour block. Write each word out 3 times and each definition once. Write as much of the theme/character information as you can remember. Check it all with a purple pen. Tick what is correct, fix what is wrong.

Coombeshead Academy *Inspiring Excellence*		English Learning Area			*Jekyll and Hyde* – Robert Louis Stevenson
wk	**keyword**	definition	example		
Week 1 (28th March- 1st April)	**Utterson**	The main protagonist.	The story is told through the eyes of Utterson.	**Week 1**	**Chapter 1: The Story of The Door** • We learnt that Utterson is a lawyer. • Utterson and Enfield pass a strange-looking door whilst out for a walk. Enfield tells Utterson about an incident involving a man (Hyde) trampling on a young girl.  • Enfield says the man had a key to the door (which leads to Dr Jekyll's laboratory). • The man paid the girl's family compensation via money and a cheque, which everyone assumed would be forged. However, the cheque was legitimate. • Utterson asks Enfield if he is sure that the man used a key to enter the door. Enfield is sure he did.
	Enfield	Enfield goes for a walk with Utterson every Sunday.	Yet both men look forward to their weekly Sunday walk as if it were the chief jewel of each week. (Chapter 1)		
	Victorian Gentleman	In order to fit this image, there were lots of qualities that a man would have to show.	Pious, honest, honourable, generous.		
	Reputation	The beliefs or opinions that are held about someone or something.	Jekyll has a great **reputation.**		
	Respectability	The quality of being socially acceptable.	Jekyll has a lot of **respectability** because of his job and personal qualities.		
Week2 (4th April- 8th April)	**Troglodytic**	Being characteristic of someone who lived in a cave.	Hyde is described as **troglodytic.**	**Week2**	**Chapter 2: Search for Mr Hyde** • Utterson takes the will of his friend Dr Jekyll from his safe. It contains a worrying instruction: in the event of Dr Jekyll's disappearance, all his possessions are to go to Mr Hyde. • Utterson decides to visit Dr Lanyon, an old friend of his and Dr Jekyll's. Lanyon has never heard of Hyde, and not seen Jekyll for ten years because of their differing approaches to scientific work.  • Utterson starts watching the door, and eventually sees Hyde unlocking it. Utterson is shocked by the sense of evil coming from him. • Utterson goes to warn Jekyll against Hyde, but is told by Poole that Jekyll is out and the servants have all been instructed by Jekyll to obey Hyde. • Utterson is worried that Hyde may kill Jekyll to benefit from the will.
	Slatternly	Something/someone that is dirty or untidy.	Some of the shop fronts are described as **slatternly.**		
	Metamorphosis	A stark change in physical form.	Jekyll undergoes **metamorphosis** to become Hyde.		
	Apothecary	One who prepares/sells drugs for medicinal purposes.	"He was the usual cut-and-dry **apothecary...**"		
	Pedantic	Someone obsessively concerned with small details.	Enfield describes himself as being **pedantic** when he tells Utterson the story of the door.		

Week 3 (25th April-29th April)	**Cronies**	A close friend or companion.	Utterson and Enfield could be described as **cronies.**		Week 3	**Chapter 3: Dr Jekyll was quite at ease** • Following a dinner party with friends at Jekyll's house, Utterson stays behind to talk to him about the will. • Jekyll laughs off Utterson's worries. • Jekyll's behaviour has become unusual. Utterson persists with trying to talk about the will. • Jekyll hints at a strange relationship between himself and Hyde. • Although he trusts Utterson, Jekyll refuses to reveal the details. He asks him to make sure the will is carried out. • Jekyll reassures Utterson that 'the moment I choose, I can be rid of Mr Hyde'.
	Abominable	Something that causes moral revulsion.	Hyde is **abominable** because everyone who sees him is disgusted by his appearance.			
	Transcendental	Something that relates to a spiritual realm.	Jekyll practises **transcendental** medicine- this is why Lanyon does not like it.			
	Irrepressible	Not able to be controlled or restrained.	Hyde's anger is **irrepressible.**			
	Physiognomy	The practice of assessing a person's character from their appearance.	Hyde's deformed appearance would be seen as an indicator of his savage personality.			
Week 4 (3rd May-6th May)	**Context**	The circumstances that form the setting for an event or idea.	The period of Victorian London forms part of the **context** for *Jekyll and Hyde.*		Week 4	**Chapter 4: The Carew Murder Case** • Nearly a year later, an elderly gentleman (Danvers Carew) is brutally clubbed to death in the street by Hyde. The murder is witnessed by a maid at a window, who recognises Hyde.  • A letter addressed to Utterson is found on the body and the police contact him. Utterson recognises the murder weapon as the broken half of a walking cane he gave to Jekyll. • He offers to lead the police to Hyde's house. They are told that Hyde has not been at home for two months. But when they search the house, they find the other half of the murder weapon.
	Symbolism	The use of an image to represent an idea.	Doors are used to **symbolise** the separation of two different worlds.			
	Animalistic	To be like an animal/uncivilised	Hyde can be described as **animalistic.**			
	Duality	Two contrasting or opposite ideas.	**Duality** is a key theme in Jekyll and Hyde.			
	Convention	An ingredient of a particular genre.	Gloomy weather is a **convention** of Gothic Literature.			

How to reminder:

Each week, complete the next colour block. Write each word out 3 times and each definition once. Write as much of the theme/character information as you can remember. Check it all with a purple pen. Tick what is correct, fix what is wrong.

Week 5 (9th May-13th May)	**Analysis**	Detailed examination of the elements of something.	AO2 refers to your ability to perform language **analysis.**		Week 5	**Chapter 5: Incident of the Letter** • Utterson goes to Jekyll's house and finds him 'looking deadly sick'. He asks whether he is hiding Hyde. • Jekyll assures him he will never see or hear of Hyde again. He shows Utterson a letter from Hyde that suggests that this is the case. • Utterson asks Guest, his head clerk, to compare the handwriting on the letter to that on an invitation from Jekyll. There is a resemblance between the two, though the letters slope in opposite directions.  There was a pause, during which Mr. Utterson struggled with himself. 'Why did you compare them, Guest?' he inquired suddenly. 'Well, sir,' returned the clerk, 'there's a rather singular resemblance; the two hands are in many points identical: only differently sloped.' 'Rather quaint,' said Utterson. 'It is, as you say, rather quaint,' returned Guest. • Utterson believes Jekyll has forged the letter in Hyde's handwriting to cover his escape.
	Savage	Fierce, violent and uncontrolled.	Hyde's actions are **savage.**			
	Violent	An aggressive form of behaviour intended to cause harm.	Hyde was **violent** when he murdered Carew.			
	Juggernaut	An unstoppable force.	Hyde is described as being like 'some damned **Juggernaut'.**			
Week 6 (16th May- 20th May)	**Duplicity**	The act of being deceitful.	Jekyll's life becomes absorbed in **duplicity.**		Week 6	**Chapter 6: Remarkable Incident of Dr Lanyon** • The police cannot find Hyde. • Jekyll seems happier and socialises for two months. Suddenly, he appears depressed and will not see Utterson. • Utterson visits Dr Lanyon to discuss their friend's health, but finds Lanyon on his death-bed. • Lanyon refuses to discuss Jekyll who, he hints, is the cause of his illness. • Trying to find out what has happened, Utterson writes to Jekyll. He receives a reply which suggests Jekyll has become very disturbed. • Lanyon dies and leaves a letter for Utterson in an envelope marked 'not to be opened till the death or disappearance of Dr Henry Jekyll'.  • Utterson locks it away unopened in his safe. • Utterson tries to revisit Jekyll several times, but Poole says he is will not see anyone.
	Pathetic Fallacy	When the weather or setting reflect the mood of a scene	'the fog rolled in' (Chapter 4).			
	Melancholy	Severe sadness, often with no obvious cause.	Utterson is described as: 'sitting there by the light of a **melancholy** candle...'			
	Simile	A comparison of objects using 'like' or 'as'.	"as empty as a church" (Enfield, Chapter 1)			
	atmosphere	The mood created in a text, location or between peoples	* ominous * * full of tension * scary calm * peaceful *			

Week 7 (23rd May-27th May)	**Oxymoron**	Where two contradictory terms appear in conjunction.	"trampled calmy" (Chapter 1).		Week 7	**Chapter 7: Incident at the Window** • On another of his Sunday walks with Enfield, Utterson tells his companion that he once saw Hyde and felt the same disgust as Enfield had described. • Enfield reveals that he has found out that the door is the rear entry to Jekyll's laboratory. The pair come to the courtyard near the door and step into it. They see Jekyll sitting at an upstairs window and call up to him. They encourage him to come and walk with them, but Jekyll refuses. He says his room is not fit for them to visit, so they cannot come up either. They then say they will stand and talk with him. Jekyll at first agrees, but a look of horror soon crosses his face and he slams the window shut.  • Appalled at what they have seen in Jekyll's face, Enfield and Utterson walk away.
	Morality	The belief that some behaviour is right and acceptable and other behaviour is wrong.	Hyde has a warped sense of **morality**. He does not act normally according to what is believed to be right and wrong.			
	Calamity	An event causing sudden damage and distress.	Jekyll's scientific interests have caused a **calamity.**			
	Dichotomy	A division or contrast between two things that are entirely different.	There is a **dichotomy** between Jekyll and Hyde.			
	Doggedly	Something done in a manner that that shows determination.	Utterson is **doggedly** determined to uncover the truth.			
Week 8 (7th June-10th June)	**Human Nature**	The natural ways of behaving that most people share.	Jekyll and Hyde represent the two sides of **human nature.**		Week 8	**Chapter 8: The Last Night** • Utterson and Poole go to Jekyll's house. They go to the laboratory, but the door is locked. The voice from inside does not sound like Jekyll's and both men believe it is Hyde. • Poole says the voice has been crying out for a particular chemical to be brought, but the chemicals given have been rejected. • They break down the door and inside find a body, twitching. In its hand are the remains of a vial. The body is smaller than Jekyll's but wearing clothes that would fit him. • On the table is a will dated that day which leaves everything to Utterson, with Hyde's name crossed out. There is also a package containing Jekyll's 'confession' and a letter asking Utterson to read Dr Lanyon's letter.  • Utterson tells Poole he will return before midnight, when he has read all the documents.
	Primitive	Relating to the early stage of evolutionary development of something.	Hyde's behaviour towards others could be described as **primitive**, because he doesn't know how to act in a respectable way.			
	Sibilance	Repetition of the 'S' sound for effect.	**'sn**arled a **s**avage laugh' (Chapter 2).			
	Distinguished	Successful and commanding respect.	Utterson is a **distinguished** lawyer.			
	Onomatopoeia	A word that reflects a sound.	'A dismal **screech**' (Chapter 8)			

Week 9 (13th June-17th June)	**Perverted**	Sexually abnormal or unacceptable practices.	Stevenson uses Jekyll and Hyde to explore the expectations and behaviour of gentlemen in Victorian London. Hyde would likely have been **perverted.**	
	Supremacy	State of being better than someone in terms of power/authority.	It could be argued that Hyde has **supremacy** over Jekyll.	
	Fear	An emotional response to a situation	Jekyll began to **fear** what he had created.	
	Triplet/Rule of Three	When three words/ phrases/ideas are used	**'cold, scanty** and **embarrassed** in discourse' (Chapter 1)	
	Fronted Adverbial	An adverb at the start of a sentence	**'Rather**, as there was something abnormal and misbegotten in the very essence of the 130 creature that now faced me...' (Chapter 9)	
Week 10 (20th June-24th June)	**Science**	The study of the world through observation and experiment.	Lanyon and Jekyll both work in the field of **science.**	
	Motif	A recurring image or idea that informs a major theme.	Hyde's murder of innocent people is a **motif** for the immorality of Jekyll's dark side.	
	Antagonist	The character that goes against the main character creating conflict.	Hyde is a very obvious **antagonist.**	
	Tension	The feeling of nervousness or worry about what may happen in a story.	Stevenson introduces **tension** before Poole and Utterson break down the door.	
	hyperbole	Exaggerated language not meant to be taken seriously.	"I would not have sacrificed my left hand to help you." (Chapter 9).	

Week 9

Chapter 9: Dr Lanyon's Narrative

- Chapters 9 and 10 are a series of letters explaining the previous events. The first is a letter in a letter.
- In 9, Lanyon encloses a copy of the letter written him by Jekyll, giving him a series of strange instructions. Dr. Jekyll's message urges Lanyon to go to his laboratory and get his drawer full of medicine bottles.
- He is to force the lock open, with the help of a locksmith which Poole will arrange for.
- Next, Lanyon is to return to his own home and at midnight, open the door to a short man (obviously Mr. Hyde), who will take the drawer. Lanyon, though now thinking that Jekyll has gone insane, does exactly as told and is soon met by Hyde, who comes to the door and asks for the medicine drawer.
- Soon, Hyde enters Lanyon's home, seizes a specific bottle from the drawer and proceeds to drink it in one gulp.
- Instantly, Mr. Hyde, after drinking the mixture, is transformed into the body of Dr. Jekyll.
- This shock causes Lanyon's death.

Week 10

Chapter 10: Henry Jekyll's Full Statement of the Case

- Jekyll tells the story of how he turned into Hyde.
- It began as a scientific investigation into the duality of human nature and an attempt to destroy his 'darker self'.
- Eventually he became addicted to being Hyde, who increasingly took over and destroyed him.

Week 11 (27th June-1st July)	**Contrast**	An obvious difference between two or more things.	There is a **contrast** between the way Jekyll and Hyde behave.		Week 11	**Key Theme: Appearance and Reality** • This is a theme that is heavily alluded to throughout the play. • Not everything is as it seems. An everyday example would be you claiming that you had tidied your room, when actually all you had done was put a blanket over the mess. **Key examples:** • The Door: signifies the line between appearance and reality. Jekyll/Hyde are able to keep their secrets largely through the confusion doors cause throughout. • Red Baize door: Poole has to literally break into Jekyll/Hyde's secrets. This is symbolic of the line between appearance and reality finally being broken. • The Window: Jekyll creates a physical division between his world and the outside world with the window. • Chapter names: these are not very detailed or emotionally triggering. However, what happens in the chapters is- Stevenson has deliberately misled the reader.
	Tone	The overall attitude or mood of a text.	The **tone** in Chapter 8 could be described as sinister.			
	pronouns	A noun that refers to a person (*I, you*) or to someone or something (*she, it, this*).	"If **he** be Mr. Hyde," he had thought, "**I** shall be Mr. Seek." (Chapter 2).			
	juxtaposition	When two things close together are in contrast to each other	Jekyll and Hyde's personality are a **juxtaposition** of each other.			
	Ignorant	Lacking knowledge of awareness of something.	Jekyll's staff are **ignorant** about who Hyde really is.			
	Foil	To prevent something from succeeding.	Poole and Utterson break down the laboratory door in an attempt to **foil** Jekyll's plan.			**Key Theme: Duality of Man** • The belief that we all have good and evil in us. • What is important is the side you choose to act upon. • Jekyll is a well-respected man who fits the ideals of a Victorian Gentleman. • He has an evil side; his curiosity gets the better of him and this leads to his downfall, along with Lanyon's.
	Degenerate	Having lost the physical, mental and moral qualities considered desirable.	Hyde can be considered a **degenerate.**			
	Allusion	A reference to a well-known person, place or text.	"God forgive us, God forgive us". (Chapter 7). (**Allusion** to the Bible).			
	Semantic field	A set of words that are related in meaning.	There is a **semantic field** of violence in the novella: trampled, mauled, hammered, blow, mangled.			
	Exclamation marks	Punctuation used at the end of a statement	"Hold your tongue!" (Chapter 8)			

KO Extension/Revision tasks: Language Paper 2

Writing non-fiction texts (Q5):

Have a look at the following webpages:

https://www.bbc.co.uk/bitesize/guides/zwt3rdm/revision/2

https://www.bbc.co.uk/bitesize/guides/zps4qty/revision/1

You can also use the information in your KO to help you.

Plan and write a speech on one of the following topics:

1. Your school has recently started selling nothing but burgers and chips in the canteen.
2. Facebook has introduced a new rule banning anyone from under the age of 18 from using it.

Comparing and Contrasting Writers' Viewpoints and Perspectives:

https://filestore.aqa.org.uk/sample-papers-and-mark-schemes/2019/june/AQA-87002-INS-MQP18A4-JUN19.PDF

1. Put the above link into your web browser.
2. Read the two sources.
3. Consider how the writer's talk about their journeys. Make some notes on each.
4. Jot down key quotations that really tell you something about the journeys. Note any writer's methods.

   E.G. 'storm-shaken old steamship'. The sibilance here provides the reader with a vision of the chaos of the weather as it batters the ship. The reader can imagine the ferocity of the waves as they fight the vessel.

Summarising Information (Q2):

1. Insert this link into your web browser:

https://filestore.aqa.org.uk/sample-papers-and-mark-schemes/2020/november/AQA-87002-INS-NOV20.PDF

2. Read and highlight important information in the following question:

You need to refer to Source A and Source B for this question. Both writers are accompanied by another person on their adventure: Simon in Source A, and Marius in Source B. Use details from both sources to write a summary of what you understand about the differences between the two companions, Simon and Marius.

Hopefully, you understand that the question wants you to write about the differences between Simon and Marius across the sources.

1. Make bullet point notes on how Simon is presented.
2. Make bullet point notes on how Marius is presented.
3. Think of 3 key points to make: is one helpful, one unhelpful? Is one ill, the other well? There are lots of things you could say.
4. Try writing up a response based upon your bullet points- model answers can be found on the AQA website under 'assessment resources'.

GCSE Food Preparation and nutrition

Cycle 3: Week 25 **Food choice**	**Week 26** Labelling and marketing
There are several factors that might influence the food choices that you make. Below is a mind map of the key influences. Here you need to ensure you understand each section of the mind map and be able to explain how they would affect your food choices.  Alongside all the factors that might affect food choice there are also other reasons too. These include - Cultural reasons – The culture describes laws, morals, customs and habits and these influences why we choose to eat the foods we do. - Moral and ethical beliefs - Some ethical reasons may include animal welfare, farming methods, how the food as been produced, and how the food as been transported are some examples - Religious reasons – Many religions have specific rules relating to foods. - Medical reasons – Intolerances, allergies and specific medical conditions such as diabetes	**Importance of food labelling** The information on a food label is important to a consumer because: 1. They may want to maintain weight, so are looking for the fat and sugar content in the food 2. They may have a health condition, such as diabetes or high blood pressure, so they may want to check the carbohydrate content or the salt content of the food. 3. They may have a severe allergy to an ingredient so need to check the ingredients list. 4. If they need to complain about the food, they will need the manufacturers address. 5. They may have limited knowledge and experience on how to store and cook the product so will look to the packaging for information. 6. They may want to buy local or be environmentally aware and will want to know where the food comes from. 7. The information educates them about the food that they are buying 8. They can make informed choices. Marketing is identifying consumers' needs and wants and using that information to supply consumers with products that match their needs and wants. There are a few ways that this is done well: • Media influence • Buy one get one free offer • Free samples • Price reductions and special offers • Loyalty cards and meal deals • Product placement

Week 27
Environmental impacts of food

The environment includes air, water and land on which people, animals and plants live.

To sustain our environment, we need to maintain and look after it by:

- Using less energy
- Reducing water consumption
- Avoiding waste
- Recycling and reusing as much as possible.
- Reducing our carbon footprint as much as possible

The 6 Rs

- Rethink – how much of the ingredient do we need to buy? Think about the most energy efficient cooking methods and think about reducing air miles – buying locally.
- Refuse – Don't use material that is bad for the environment or cannot be recycled.
- Reduce – Cut down the amount of packaging material on food, and conserve energy and water when you cook
- Reuse – Use leftover food to create another dish. Reuse packaging such as jars
- Recycle – Always recycle packaging
- Repair – Fix equipment before buying new ones.

Environmental impacts of food production

- Seasonal foods
- Packaging
- Food waste
- Local Produce
- Organic foods
- Transportation
- Sustainability

Week 28
Food provenance and production methods

Sustainable farming methods

Free range production

- This is a method of farming where animals have access to outdoor spaces for at least part of the day.
- Animals farmed this way include pigs, grass-fed beef, laying hens, chickens and turkeys.

Intensive farming

- This is a farming system that aims to produce as much yield as possible, usually with the use of chemical and in a restricted space.
- Intensive farming can be used with both crops and animals
- Intensive production means that animals can suffer from isolation or overcrowding, and cannot move around of behave naturally.
- Animals can be restrained from natural behaviours like grazing, foraging, running and nesting.

Genetically modified food

Genetically modified foods are food produced from plants or animals that have had their information changed by scientists. The generic information controls the features that are passed on from one generation to the next. Scientists can change a plant or animal by adding genetic information from another plan or animal to it. By doing this, they are able to precisely select characteristics that they want in the generations of foods.

Genetically modified foods could have:

- Better resistance to insects, pests or disease
- Increased storage life when harvested
- Resistance to low rainfall
- Faster growth

Week 29
Food production and processing

The process of food production

- Most food undergoes some processing before appearing at the table. The whole process is referred to as 'field to fork'.
- Field to fork describes all the stages in the production of food from its source to the consumer.

The two stages of food production are primary and secondary food processing.

- Primary processing is changing of raw food materials into food that can be eaten immediately or can be processed further into other food products. Primary processing covers the transporting, sorting, cleaning, blending, cooking, preserving, packing and storage of the raw food.
- Secondary processing is when primary products are changed into other types of food products.

Steps	Process	Why
1 Sieving and checking	Flour arrives at the bakery from the flour mill. It is stored in large silos.	It is checked for metals or any other impurities.
2 Mixing and kneading	The ingredients are pumped into a giant mixer. The ingredients are mixed at high speed for 5 minutes.	Simply blending the ingredients is not enough to start gluten development; the dough needs to be worked.
3 Dividing	The dough is removed and divided into individual pieces by a machine.	All batches must be identical.
4 First rising	Dough circulates along a conveyor belt and the yeast becomes active. This is rising.	**Rising** is when the yeast fills the dough with gas (carbon dioxide), causing it to rise.
5 Knocking back	The dough is kneaded for about 2 minutes by a machine. The kneaded dough passes along another conveyor belt until it is dropped into pre-greased tins.	This stage ensures that the gas is distributed throughout the dough in small bubbles.
6 Proving	The tins pass along the conveyor belt into a warm area. The dough is placed at 45°C for about 50 minutes to allow the yeast to work.	The dough will be three times its original size. The dough has a fine texture.
7 Baking	The tins move slowly on a conveyor belt through a huge oven for about 20 minutes. Basic bread doughs are usually baked at about 200°C.	The dough rises rapidly as the gas (carbon dioxide) is produced. The yeast dies and rising stops. The dough sets and browns.
8 Cooling	The bread loaves are mechanically sucked out of their tins and cooled.	Long, slow cooling allows crust formation.
9 Slicing	The bread is sliced mechanically and bagged.	The label gives the weight and best before dates.

Week 30 Sustainability of food – Food security	Week 31 Food processing methods	Week 32 Technological developments associated with better health
Food security is when all people, at all times, have access to enough safe and nutritious food for them to lead an active healthy life. The world is facing a possible crisis in terms of food security. It is all about meeting the challenge to provide the worlds growing population with a sustainable, secure supply of safe, nutritious and affordable high quality food, without having a negative affect on the environment. There are 4 features of food security 1. Availability of food 2. Access to food 3. Use of food 4. Stability of the supply Food security requires all four features to be met at the same time.  	**<u>Blanching</u>** Before food is canned or frozen, it is usually heated very quickly with steam or water. The water-soluble vitamins, including vitamin C and B are sensitive to heat and are reduced by blanching. Blanching is boiling fruit or vegetables for a short time to destroy enzymes, before plunging them into iced water to stop the cooking process **<u>Canning</u>** Sealed food inside a metal can and then subject to high temperature pressure cooking (at least 115 degrees) to destroy the microbes, and form a vacuum so no other microbes can enter the can until it is opened **<u>Pasteurisation</u>** Fresh food is heated very quickly in a heat exchanger to 72 degrees for 15 seconds, then very rapidly cooled to below 10 degrees Fresh milk is heat treated to kill pathogenic bacteria and make it safer to drink for several days as long as it is stored correctly **<u>Sterilisation - Ultra heat treatment</u>** Ultra-heat treatment (UHT) involves heating food very quickly in a heat exchanger to 132-135 degrees for 1-2 seconds, then rapidly cooling and packing it inside special multi-layered storage packs. These are completely sealed so that the food can be stored, un-opened and at ambient temperature for several months. Once opened, UHT foods must be stored in a fridge and consumed within a few days.	**Fortification of foods** Fortification of foods means to strengthen the food by the addition of nutrients. This can be done by increasing the original nutrients found in the food or adding other nutrients to the food that don't naturally occur. This is sometimes also called supplementation Some foods fortified by law include: • Vegetable fat spreads and low-fat spreads – Vitamins A and D • All types of flours, expect wholemeal – Iron, thiamine, niacin, calcium **Voluntary fortification** As the processing of some foods can result in nutrient losses, there are also several ways in which nutrients can be added to foods to compensate for these variations: 1. Enrichment – the addition of nutrients that would naturally occur in a specific food 2. Restoration – the addition of a nutrient to a specific food in order to restore lost nutrients 3. Standardisation – as the nutrient levels in foods vary, standardisation is the addition of nutrients to a consistent level to compensate for variations. **Cholesterol lowering food products** Natural substances called sterols and stanols that are found in plants are added to food products such as cholesterol-lowering vegetable fat spreads, yoghurts **<u>Food additives</u>** Food additives are added to foods to improve:. 1. Shelf life – Preservatives 2. Wider range of products – instant gravy, mash, custards etc.. 3. Improve flavour 4. promote benefits such as increased vitamin

Seneca completion list	
Week 25: **5.1.1 Factors Which Influence Food Choice** **5.1.2 Food Choices** **5.1.3 Religious Food Choices** **Week 26:** **5.1.4 Food Labels** **5.1.5 Mandatory Food Labels** **5.1.6 Optional Food Labels** **5.1.7 Marketing Influences** **5.1.8 End of Topic Test - Food Choice** **Week27:** **6.1.5 Food & The Environment** **6.1.6 Food & The Environment 2** **Week 28:** **6.1.1 Food Sources - Intensive & Organic Farming** **6.1.2 Food Sources - Genetically Modified Crops** **6.1.3 Food Sources - Reared Food** **6.1.4 Food Sources - Caught Food** **Week 29:** **6.2.1 Primary Food Processing** **6.2.2 Primary Food Processing 2** **Week 30:** **6.1.7 Sustainability of Food** **6.1.8 Sustainability of Food 2**	**Week: 31** **6.1.9 End of Topic Test - Environmental Impacts** **6.2.6 End of Topic Test - Food Processing & Production** **Week32:** **6.2.4 Fortification** **6.2.5 Additives** **Week 33:** **5.3.1 Taste Receptors & Olfactory Systems** **5.3.2 Sensory Testing Methods** **5.3.3 Sensory Testing Methods 2** **5.3.4 End of Topic Test - Cuisines & Senses** **Week34:** **5.2.1 British Cuisine** **5.2.2 Japanese Cuisine** **5.2.3 Japanese Ingredients & Dishes** **5.2.4 Spanish Cuisine** **5.2.5 Spanish Ingredients & Dishes** **Week35:** **Consolidation of Seneca – ensure all Seneca is complete.** **Week 36- NEA1 and NEA2 focus. Ensure you understand how to complete each piece of coursework.**

Cycle 1 super teaching week resource:

Carbohydrates	**Gelatinisation, dextrinization and caramelisation**	**Aeration**	**Fats**
Shortening and plasticity	**<u>Knowledge blocks</u> <u>Recall as much as you can from the topics we have covered in cycle 1</u>**		**Coagulation and Denaturation**
Foam formation and gluten formation	**Micronutrients**	**Water in the diet**	**Protein**

Cycle 2 super teaching week resource:

Different dietary requirements	**Diet related diseases**	**Heat transfer**	**Cooking methods**
Fermentation	**Knowledge blocks** **Recall as much as you can from the topics we have covered in cycle 2**		**Raising agents**
Lifestages	**Food safety**	**Food poisoning**	**Micro-organisms**

Cycle 3 super teaching week resource:

Food choice	**Labelling food**	**Marketing food**	**Sustainability**
Bread making process	**Knowledge blocks** **Recall as much as you can from the topics we have covered in cycle 3**		**Primary processing**
Cheese and yoghurt making	**Food provenance**	**Technological developments in food**	**Secondary processing**

Y11 French
Knowledge Organiser 3

Time expressions

le matin	*in the morning*
l'après-midi	*in the afternoon*
le soir	*in the evening*
le lundi	*on Monday(s)*
lundi dernier	*last Monday*
lundi prochain	*next Monday*
le week-end prochain	*next week-end*
le week-end dernier	*last week-end*
en été	*in summer*
en hiver	*in winter*
l'année dernière	*last year*
le mois dernier	*last month*
la semaine dernière	*last week*
hier	*yesterday*
il y a deux jours	*2 days ago*
le lendemain	*the day after*
demain	*tomorrow*
la semaine prochaine	*next week*
le mois prochain	*next month*
l'année prochaine	*next year*
maintenant	*now*
aujourd'hui	*today*
plus tard	*later*
à huit heures	*at 8 o'clock*

Opinions

☺☺☺☺☺	J'adore
☺☺☺☺	J'aime beaucoup
☺☺☺	J'aime bien
☺☺	J'aime
☺	J'aime assez
☹	Je n'aime pas beaucoup
☹☹	Je n'aime pas
☹☹☹	Je n'aime pas du tout
☹☹☹☹	Je déteste

+ le/la/les/l'
or
+ **infinitive**

I prefer	je préfère
I would prefer	je préférerais
I would have preferred	j'aurais préféré

Justify!

Connectives

et	*and*
mais	*but*
quand	*when*
ou	*or*
qui	*who,which*
parce que/ car	*because*
puisque	*as,since*
cependant	*however*
néanmoins	*nevertheless*
puis	*then*
si	*if*
donc	*therefore*
où	*where*
par conséquent	*as a result*
alors	*then/ so*
tandis que	*whereas*
par contre	*on the other hand*
d'un côté	*on one hand*
de l'autre côté	*on the other hand*

Give your opinion and justify it

je pense que	I think that	
je crois que	I believe that	
à mon avis	in my opinion	
selon moi	in my opinion	+ **parce que ….**
je trouve que	I find that	
j'ai trouvé que	I found that	
j'ai pensé que	I thought that	

Give a Reason

C'était-*it was* / **C'est**-*it is* / **Ce sera**-*it will be*

Positive

amusant (e)	*funny*
intéressant (e)	*interesting*
pratique	*practical*
fantastique	*fantastic*
parfait (e)	*perfect*
passionnant (e)	*fascinating*
délicieux (euse)	*delicious*
sympa	*nice*
fabuleux (euse)	*fabulous*
excellent (e)	*excellent*
relaxant (e)	*relaxing*

Negative

affreux (euse)	*horrible*
ennuyeux (euse)	*boring*
nul (le)	*rubbish*
dégoûtant (e)	*disgusting*
difficile	*difficult*
dangereux (euse)	*dangerous*
mauvais (e)	*bad*
effrayant (e)	*scary*
bête	*silly*
une perte de temps	*waste of time*
désastreux (euse)	*desastrous*

Adverbs

malheureusement	*unfortunately*
heureusement	*fortunately*
d'abord	*firstly*
normalement	*normally*
généralement	*generally*
de temps en temps	*from time to time*
souvent	*often*
finalement	*finally*
jamais	never

Y11 French KO3: Grade 7 /8 / 9

After having done something

Use Past Participle (pp) of the verb

après avoir regardé	= *after watching*
après avoir fini	= *after finishing*
après avoir attendu	= *after waiting*
après être allé(e)(s)(es)	= *after going*
après être sorti(e)(s)(es)	= *after going out*
après être rentré(e)(s)(es)	= *after coming home*
après m'être habillé(e)(s)(es)	= *after getting dressed*
après m'être lavé(e)(s)(es)	= *after having a wash*

While / by doing something

en jouant	*while playing*
en mangeant	*while eating*
en faisant	*while doing*
en allant	*while going*

Y means 'there'

It goes in front of the verb. Useful to avoid repetitions of a name of a place already mentioned.

J'y vais demain= *I go/ I am going there tomorrow*.

J'y suis allé(e) en vacances = *I went there on holiday*

Je vais y aller = *I am going to go there*

Je n'y suis jamais allé(e)= *I have never been there*

Direct Object Pronouns: avoid repetitions (A grade)

Find if the word you are refering to is feminine, masculine, or plural and choose your pronoun : **La**, **Le**, ***Les;*** then follow the rules below

It goes in front of the verb: **Je les aime** = *I like them*

Je l'aime = *I like it, I like him, I like her*

In a negative sentence it goes between 'ne' and the verb:

Je ne les aime pas= *I don't like them* **je ne l'aime pas** = *I don't like it, him, her*

The negative

Goes around the **verb**

ne/n'…..pas	*not*
ne….. aucune	*not any/not one*
ne…. jamais	*never*
ne …personne	*nobody*
ne…..plus	*no more/no longer*
ne…..que	*only*
ne…..rien	*nothing, not anything*
ne….pas encore	*not yet*
ne…ni…ni…	*neither nor*

Classroom Language

1. I need - J'ai besoin de
2. I have/ I don't have - J'ai / Je n'ai pas de
3. I understand - Je comprends
4. I don't understand - Je ne comprends pas
5. I have finished - J'ai fini
6. Please / thank you - S'il vous plait / merci
7. May I … - Puis-je…
8. Repeat - Répétez s'il vous plait
9. How do you say - Comment dit-on…
10. I've forgotten - J'ai oublié
11. I would like - Je voudrais…

Comparative (bigger, smaller, more expensive than)

plus …que = *more …than* - **je suis plus grand(e) que toi =** *I am bigger than you*

moins …que = *less … than* - **elle est moins grande que moi** = *she is less tall than me*

aussi …que = *as…as-* **nous sommes aussi grand(e)s que notre père** = *we are as tall as our*

Before doing something

avant de / d'+ infinitive (verb ending with ER, IR, RE)

avant de manger = *before eating*

avant d'aller = *before going*

avant de me coucher = before going to bed

Spain reaches the 'New World' c1490-1512. 1.1 Spanish Exploration

1	In the 1490s Spain had ambitions to expand its religious influence and trade prospects abroad. Crusades were used to achieve both these aims. Most of Europe was mapped. The Spice Trade with the East Indies was well established. Portugal and Spain were rivals.

Key Events

2	**1479** – Spain politically united under joint rule of Ferdinand and Isabella.
3	**1484** – Columbus approached King John of Portugal for sponsorship – refused.
4	**1486** – Columbus approached Ferdinand and Isabella for sponsorship – refused.
5	**1490** – Spain religiously united – drove out Muslims and Jews.
6	**1491** – Ferdinand and Isabella sponsored Columbus.
7	**1492** – Columbus' first voyage. Landed on San Salvador. La Navidad built on Haiti. Conquest of Granada.

Key Concepts/Questions

Explain the importance of Queen Isabella's sponsorship of Columbus for Spanish exploration.	• Pious and crusading spirit. • Crusades aimed to convert people to Christianity in unknown lands. The Catholic Church approved of these so normally approved similar expeditions. • The Pope (head of the Catholic Church) supported them. • Isabella believed she'd benefit spiritually if Spain funded expeditions. • Crusades justified the expansion of the Spanish Empire and gaining of treasure. • The Catholic monarchs realised Crusades could increase their wealth, and make them more powerful against their European rivals (England, France, and Portugal).
What challenges were there on Columbus' voyage in 1492?	• **Finding ships and crew -** Martin and Vicente Pinzon helped Columbus get ships and crew. 2 caravels (small and fast sailing ships) – the Nina and the Pinta 1 carrack (masted sailing ship used for commerce/trade) – the Santa Maria (flagship) • **Rivalry at sea -** Columbus had to change routes to avoid Portuguese caravels. • **Sailors' fears** - Columbus kept 2 different logs of the journey to stop sailors getting worried. One was accurate and he kept secret so not to worry his crew but to keep an accurate record, whereas the other log recorded shorter distances again so he did not worry his crew. • **Possible mutiny** - As the sailors had not spotted land for so long, they came close to utiny. They allowed Columbus 2 more weeks before they said they would mutiny and rn back. **uarrels** - Columbus and Martin Pinzon disagreed on the route. Columbus struggled to ep control. **nd** - On the 10th October, after 6 weeks at sea, the crew finally spotted land.

Key Words

8	**Crusade**	A campaign for religious change, often seen as a 'holy war'.
9	**The 'Catholic monarchs'**	Isabella I of Castile and Ferdinand II of Aragon, King and Queen of Spain
10	**The East Indies**	The lands and islands of South and South-East Asia, which became popular for their spices - the 'Spice islands.'
11	**The Spice Trade**	Trade between Asia and Europe in spices e.g. pepper and ginger.
12	**Christendom**	The worldwide community of Christians.
13	**Christopher Columbus**	The son of a weaver and a seaman, he was an explorer and navigator who completed four voyages across the Atlantic Ocean, opening the way for the widespread European exploration and colonization of the Americas.
14	**Navigation**	To plan and follow a route.
15	**Sponsorship**	To give someone financial support.
16	**Imperialism**	Extending a country's power and influence through colonization, use of military force, or other means. To build an Empire.
17	**Annexation**	To incorporate land into another state's political boundaries.
18	**Colony**	A country or area under the full or partial political control of another country and occupied by settlers from that country.
19	**Settlement**	A place, typically one which has previously been uninhabited, where people establish a community.
20	**Expedition**	A journey undertaken by a group of people with a particular purpose, especially that of exploration.
21	**Monopoly**	Complete control – in this case over trade with another country.
22	**Conquistador**	An armed adventurer and explorer who went to the New World looking for gold, glory, and power.
23	**Mutiny**	The refusal to obey the orders of a person in authority e.g. the captain.

Spain reaches the 'New World' c1490-1512. 1.2 Columbus reaches the New World

1	Columbus's voyage of exploration and discovery reached the 'New World' in 1492. Columbus explored the area looking for gold and founded a settlement at La Navidad, Haiti. Contact with the Caribbean natives was peaceful at first, but conflict later arose. Portugal and Spain both believed they had a claim to the New World – the dispute was resolved through the Treaty of Tordesillas, 1494.

Key Events

2	**October 1492** – Columbus discovered San Salvador Island (Guanahani).
3	**November 1492** – Rebellion! Martin Pinzon sailed away in the Pinta, without Columbus' permission, to look for gold.
4	**December 1492** – Santa Maria wrecked on a reef. Columbus used its timbers to build La Navidad.
5	**March 1493** – Columbus sailed back to Europe on board the Nina, landing first in Portugal, then Spain.
6	**1494** – Treaty of Tordesillas was agreed which divided the "New World" into land, resources, and people claimed by Spain and Portugal.

Key Concepts/Questions

Explain the importance of the Treaty of Tordesillas 1494.	• The treaty gave Spain most of the New World. Ferdinand and Isabella were now in a position to claim Mexico, North America and most of South America, in addition to the Caribbean. • This meant any gold and silver found in these territories would go only to Spain. • Spain now had a major incentive to explore further and conquer much of the New World; as a way of obtaining gold, silver, tobacco and other resources.
Explain two consequences of Columbus' return to Spain in March 1493.	• **Rewards** - Isabella and Ferdinand encouraged Columbus to carry out another voyage. Columbus was given new titles, a new coat of arms and issued a pension for life. He was also given powers to govern lands in the New World. • **The role of the Pope -** The Pope gave Isabella and Ferdinand his support for the new 'Spanish Indies'. He was excited by Columbus' discoveries and wanted Christianity to spread to these lands. • **Rivalry with Portugal -** King John believed he had claim to the lands Columbus had discovered. This led to talks with Spain to determine who had rights over what lands as Spain were getting ready to send Columbus back to govern.
Explain the importance of the settlement at La Navidad (1492) for Spanish exploration of the New World.	• 1st indication that Spaniards were in the New World to stay and therefore explore further. • The fort gave the men somewhere to live. La Navidad protected sailors from attack. • Important for all further Spanish exploration in the New World because it showed that while some native tribes were friendly, others were not and resented the entry of the Spanish into their world.

Key Words

7	**San Salvador**	An island that Columbus discovered in the Caribbean (known as Guanahani to the natives).
8	**Natives**	People who lived on the Island Columbus discovered – were referred to as 'Indians' as they originally thought they had landed in India.
9	**La Navidad**	Columbus built a fort for protection. Founded a settlement.
10	**Martin Pinzon**	Helped Columbus get ships and crew. BUT then rebelled – sailed away in the Pinta to look for gold, without asking Columbus for permission.
11	**The Pinta**	Columbus' ship – Martin Pinzon sailed away on it.
12	**The Santa Maria**	Columbus' flagship. Wreckage used to build La Navidad.
13	**The Nina**	Columbus' smallest ship.
14	**Ceiba trees**	Trees that produced light, fluffy balls of kapok that could be spun into thread or woven into cloth.
15	**Tainos**	A tribe of native people living on the Caribbean islands, who were usually peaceful.
16	**Caribs**	A tribe of native people living on the Caribbean islands who were usually war-like, and possibly cannibals.
17	**Pope**	Head of the Catholic Church. Gave support to Ferdinand and Isabella.
18	**Treaty of Tordesillas 1494**	An agreement between Spain and Portugal. An imaginary line was drawn from the North to the South Pole. All lands to the West were for Spain. Lands to the East were for Portugal.
19	**Cannibals**	A person who eats the flesh of other human beings.
20	**Samana**	On way back to Spain, Columbus and his crew landed here (now the Dominican Republic). Men went ashore and found dried human heads and large canoes. An exchange went wrong and erupted into violence. They learnt that the natives could be hostile.

Spain reaches the 'New World' c1490-1512. 1.3 Spanish claims in the Caribbean

1	Contact with the Caribbean natives in 1492 was peaceful at first, but conflict later arose. Columbus made 3 further voyages. Spanish settlement, from 1493 onwards, had significant effects on the New World and the natives. Following Columbus' discovery of the New World, the Spanish government needed to develop an imperial policy to enable it to control trade and religion in the newly discovered lands.

Key Events

2	**1493** - Columbus' second voyage. He became Governor of Haiti on this voyage.
3	**1496** – Columbus left the settlement at Isabela – left his brothers Bartholomew and Diego Columbus in charge.
4	**1499** - Francisco de Bobadilla replaces Columbus as Governor in Santo Domingo after reports of Columbus' brutality reach Spain.
5	**1500** - Columbus is sent back to Spain.
6	**1512** – The Laws of Burgos – these established the encomienda system.

Key Concepts/Questions

Explain the importance of Santo Domingo for Spanish control of the New World.	• **1496** – Columbus left the settlement at Isabela, placing his brothers, Bartholomew and Diego, in charge. Bartholomew abandoned Isabela and set up a new colony at Santo Domingo. • **1498** – Columbus returned from Spain to find the settlement at Santo Domingo in uproar. Columbus calmed the revolt by offering the settlers some rights – land and native labourers to work on it. However, discontent continued, and Columbus responded by hanging several Spaniards and natives. • Columbus appealed to Ferdinand and Isabella for help. They sent representative Bobadilla to replace Columbus as governor. Bobadilla upheld the settlers' complaints and in **1500**, Columbus was taken back to Spain to face trial.
Explain the importance of Roman Catholic missionaries for the development of the New World.	• In **1503**, Ferdinand and Isabella issued a series of rules about educating the Indians: -Indians were to live in towns and pay taxes. -Taught about Christianity and expected to live as Christians. -Taught how to read, write and dress. • Reports reached Spain about the abuses of Indians. Dominicans were sent to stop the mistreatment, as the Spanish were shocked at the mistreatment of natives. • The conversion of the region was viewed as crucial for colonization. The missions created by members of Catholic orders were often located on the outermost borders of the colonies. The missions facilitated the expansion of the Spanish empire through the religious conversion of the indigenous peoples occupying those areas. While the Spanish crown dominated the political, economic, and social realms of the Americas and people indigenous to the region, the Catholic Church dominated the religious and spiritual realm.
Explain two consequences of Spanish settlement in the New World.	• Gold mines set up in Haiti – most of the work done by natives. • Tainos and Carib societies destroyed in order to provide work for the Spanish. • Columbus had captured natives to sell as slaves – Isabella not pleased and sent slaves back to Haiti. • Encomienda system set up. Nicolas de Ovando set this up in **1502**. • Diseases like smallpox killed many natives. **1492** around 500,000 natives. By **1507** only 60,000.

Key Words

7	**Isabela**	Columbus formed a new settlement 'Isabela' – but it was unsuccessful because of the poor location and most Spanish settlers were more interested in gold.
8	**Santo Domingo**	Bartholomew Columbus built Santo Domingo after abandoning Isabela.
9	**Las Cortes**	The Spanish Parliament – mainly nobles and middle-class men.
10	**Francisco de Bobadilla**	Representative of the Spanish government, sent to replace Columbus in the New World.
11	**Encomienda**	A Spanish labour system that rewarded conquerors with the labour of particular groups of conquered non-Christian people. The laborers, in theory, were provided with benefits by the conquerors for whom they laboured, such as protection from other tribes.
12	**Encomendero**	The name given to a man in charge of an encomienda.
13	**Smallpox**	An infections disease caused by a virus. Symptoms = rash that develops into blisters in the mouth and skin. Can cause blindness and death. Survivors have pock-marked skin.
14	**Imperial policy**	The policy developed by the Spanish government towards its growing empire in the New World.
15	**Monopoly**	Complete control – in this case, over trade with another country.
16	**Franciscan**	A member of a Roman Catholic religious community (monk) seeking to persuade people to become Christians by example – by living a life of poverty and humility, as Christ had done.
17	**Dominican**	A member of a Roman Catholic religious community (monk) seeking to persuade people to become Christians by teaching and preaching about Christ.
18	**Casa de Contratación**	House of Trade – to ensure Spain controlled all trade with the Caribbean.
19	**Catholic Missionaries**	Catholic monks and nuns – taught natives about Christianity.
20	**Laws of Burgos December 1512**	Laws maintained the encomienda system – which turned the natives into slaves. Allowed Spanish officials to punish natives who broke the laws.

The conquistadors, 1513-1528. 2.1 The start of an Empire

1	Between 1513 and 1528, the Spanish conquistadors conquered Panama, Cuba, Mexico and Peru, and circumnavigated the globe. Between 1511-1514 **Velázquez** conquered Cuba, giving Spain complete control over the Caribbean. **Magellan**'s voyage around the globe resulted in the opening up of the Pacific for trade and exploration and gave Spain control over the Philippines.

Key Events

Vasco Núñez de Balboa conquers Central America	
2	**1509** – Balboa rescued a Spanish expedition in trouble on mainland America.
3	**1510** – Founded the first permanent settlement on mainland America, Santa María la Antigua del Darién.
4	**1511** – Confirmed, by King Ferdinand, as captain general and governor of Darién.
5	**1513** – Expedition across Isthmus of Panama – found the Pacific and claimed it and surrounding lands for Spain.
6	**1514** – Planned an expedition to sail south on the Pacific. Replaced as governor by Pedrarias Dávila. Arrested for treason, tried and beheaded.

Diego Velázquez de Cuéllar conquers Cuba	
7	**1511** – Hatuey a native chief living in Haiti, flees to Cuba with 400 natives to escape Spanish cruelty. Velazquez and 300 conquistadors pursue them.
8	**1512** – After strong native resistance, Hatuey is captured and burned alive.
9	**1513** – Massacre at Caonao – 1000s of natives killed.
10	**1514** – Conquest of Cuba complete. City of Santiago de Cuba founded and becomes capital of Cuba.
11	**1515** – City of Havana founded.

Key Concepts/Questions

Explain 2 consequences of Balboa's exploration of the Isthmus of Panama.	• Panama was founded as a Spanish territory under Pedrarias as Royal Governor and became an important colony. • From Panama, Pedrarias explored the Pacific coast. Balboa is also credited as being the first European to see the Pacific Ocean from the New World. • The route through Panama led to Magellan's circumnavigation of the World. • Balboa helped establish the first stable European settlement on the mainland of South America. The colony of Darien in Panama helped Spain establish a vast colonial empire in the Americas.
Write a narrative account analysing the key events of the Spanish conquest of Cuba.	• Velázquez sailed from Hispaniola to create a Spanish settlement on Cuba, beginning a war with the native Tainos people. • The native population was defeated, which made it possible for the Spanish to begin colonising the island. • The first Spanish settlement was founded in Havana, which gave the Spanish a base from which to colonise the rest of the island. • As the Spanish spread across the island, they captured the native population and placed them on reservations, removing this threat to their authority. • Tobacco plantations made Cuba an extremely successful colony for the Spanish, who started using it as their main base in the Caribbean.
Explain two consequences of the voyage of Magellan (1519-22)	• It established the earth was round and that Columbus was correct in his belief that the East Indies could be reached by sailing westwards. • It opened up the Pacific, leading to the exploration of the East Indies and the Philippines. Ships could also sail up the Pacific coast opening up the west coast of North America to exploration and trade. By the mid 1540s, places such as California were being visited by Spanish explorers. • New trade route was found. It meant that Spain could claim the Spice Islands – as they had found a western route to it. • It brought prestige to Spain – Magellan and his ships were the first to complete a voyage of global circumnavigation.

Key Words

12	**Conquistador**	An armed adventurer and explorer who went to the New World looking for gold, glory and power.
13	**Isthmus**	A narrow strip of land, with sea on both sides.
14	**Balboa**	Spanish explorer and conquistador.
15	**Darién**	Abandoned Indian village – became a Spanish settlement called Santa María la Antigua del Darién.
16	**Panama**	Founded as a Spanish territory under Pedrarias Dávila.
17	**Pedrarias**	Royal Governor of Panama.
18	**Gaspar de Espinosa**	Pedrarias Dávila's second in command.
19	**Velázquez**	Spanish explorer and conquistador who conquered Cuba.
20	**Hatuey**	A native chief who had escaped from Haiti with 300 followers. Captured in 1512. Burned to death.
21	**Massacre at Caonao, 1513**	2000 native people were massacred by the Spanish, who ran amok in the village.
22	**Ferdinand Magellan**	Voyage opened up Pacific for trade and exploration.
23	**Circumnavigate**	To travel (usually sail) around the world.

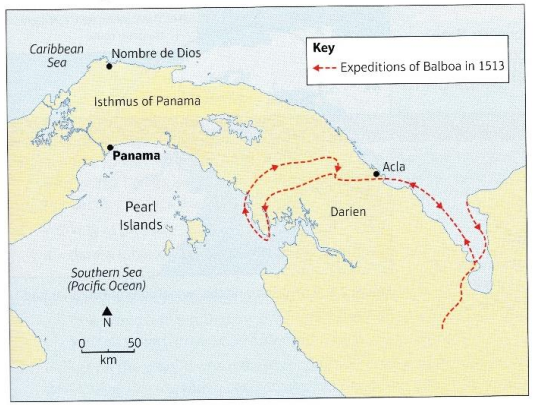


Figure 2.2 A map showing the expeditions of Balboa in 1513.

The conquistadors, 1513-1528. 2.2 The conquest of Mexico

1	Cortés' 1519 expedition to Mexico resulted in the collapse of the Aztec Empire and in Spanish control over Central America. The Spanish invasion had far-reaching effects for the Aztecs.

Key Events

2	**1519** – Cortés' expedition to Mexico. They arrived March 1519 and were given La Malinche (Mayan woman who became an interpreter).
3	**October 1519** – Massacre at Cholula.
4	**November 1519** – The Spanish entered Tenochtitlan. Montezuma submitted to the Spanish and became a 'puppet ruler'.
5	**June 1519** – Montezuma was killed and the Spanish were forced out of Tenochtitlan during the Night of Tears.
6	**August 1521**– Tenochtitlan fell to the Spanish and the Aztecs surrendered.
7	**1523** – Cortés was named as Governor of New Spain.
8	**1528** – Cortés was removed as Governor and returns to Spain.

Key Concepts/Questions

Explain two consequences of the Spanish conquest of the Aztecs.	• One consequence of the conquest of the Aztecs was the human cost. Evidence to support this is that when Cortes arrived in Mexico there were about 25 million Aztecs in the empire. However by 1555 there were only about 6.2 million Aztecs left. Over 2/3rds of the population had died from war, disease and famines. This meant that the Aztec society and culture was destroyed. Therefore, Spanish conquest of the Aztecs had the consequence of removing the Aztec culture and leaving a vacuum for the Spanish to fill. • Another consequence of the Spanish conquest of the Aztecs was the spreading of Christianity**.** Evidence to support this is Franciscan and Dominican Friars went to Mexico and attempted to convert the Aztecs. They used the hierarchy of Aztec society to spread Christianity. This meant that the Aztec's polytheistic religion was replaced by the monotheism of Christianity and was absorbed into the structure of Aztec society. Therefore the conquest of the Aztecs led to the spreading of Christianity and the death of the polytheism of the Aztecs.
Write a narrative account analysing the key events of Cortés' expedition to Mexico, 1519.	• **February 1519** – Sailed from Cuba, despite Velázquez's attempts to stop him. • **March** – Landed on the Yucatan Peninsula and claimed the land for Spain. • **April** – Fought Tabascan natives and took control of city of Pontonchon. They made peace with the Tabascans and became allies with them. Cortés was given Mayan woman, La Malinche who acts as an interpreter. • **July** – Re-established a Spanish settlement at Vera Cruz. Sunk his ships. • **August** – Met by cheering natives at Cempoala and became allies with them. • **September** – Fought Tlaxcalans – enemies of the Aztecs –made peace and allies with them.

Key Words

9	**Hernán Cortés**	Spanish explorer and conquistador who conquered Mexico.
10	**Flotilla**	A small fleet of ships or boats.
11	**Aztec Empire**	Worshipped many Gods. Human sacrifices.
12	**Tenochtitlan**	Aztec capital – 300,000 people (pronounced Ten-och-ti-clan).
13	**Malinche**	Cortés' mistress and interpreter.
14	**Montezuma**	Ruled the Aztec Empire.
15	**Cholula**	Massacre of 3000 people.
16	**Tlaxcalan**	A native tribe who became allies with the Spanish.
17	**'Puppet King'**	A person who appears to be ruling, but in reality someone else is telling them what to do.
18	**Night of Tears**	Spaniards are massacred as they flee from Tenochtitlan and spend nearly a year re-grouping and planning.

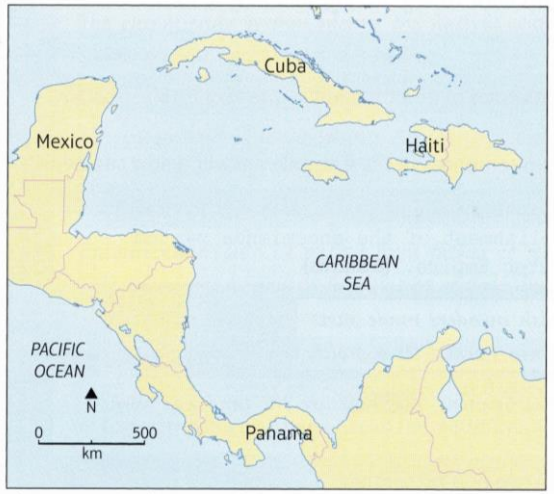


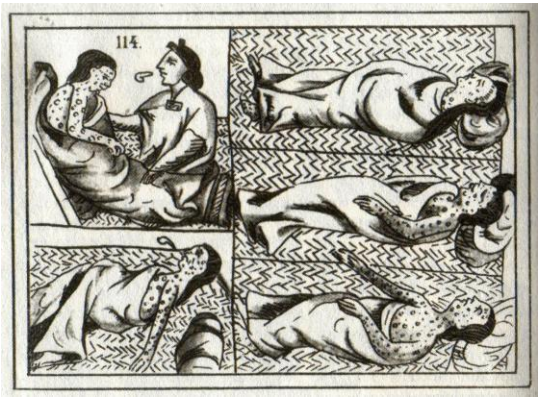
Figure 2.13 Outline map of the Caribbean and Panama.

The conquistadors, 1513-1528. 2.3 The impact of Spain in the New World

1	The capture of Tenochtitlan marked the end of the Aztec Empire, enabling Cortés, as Governor and Captain-General, to turn Central America into New Spain. The Spanish invasion had far reaching effects for the Aztecs.

Key Events

2	**1519** – Cortés first set foot in Mexico. It was home to 25 million natives.
3	**1523** – Cortés was given title of Governor and Captain-General of New Spain.
4	**1528** – Cortés was removed as Governor and returned to Spain.
5	**1555** – There were only 6.2 million natives left in Mexico.



Key Concepts/Questions

Explain two consequences of the Spanish conquest on the Aztecs.	• One consequence of the conquest of the Aztecs was the human cost. When Cortés arrived in Mexico there were about 25 million Aztecs in the empire. By 1555 there were only about 6.2 million Aztecs left. Over 2/3 of the population had died from war, disease and famines. This meant that the Aztec society and culture was destroyed. Therefore, Spanish conquest of the Aztecs had the consequence of removing the Aztec culture and leaving a vacuum for the Spanish to fill. • Another consequence of the Spanish conquest of the Aztecs was the spreading of Christianity. Franciscan and Dominican Friars went to Mexico and attempted to convert the Aztecs. They used the hierarchy of Aztec society to spread Christianity. This meant that the Aztec's polytheistic religion was replaced by the monotheism of Christianity and was absorbed into the structure of Aztec society. Therefore the conquest of the Aztecs led to the spreading of Christianity and the death of the polytheism of the Aztecs.
Explain the importance of Cortés' actions as Governor and Captain-General of New Spain for Spanish control of Mexico.	• Cortés claimed the land for Spain and founded new cities, which encouraged more Spaniards to move to and settle in New Spain. • Cortés built Mexico City, which became an important seat of political power from which Spain could control the rest of the country. • Cortés introduced Catholicism and requested large numbers of friars from Spain, who converted a lot of the native population and spread the Spanish language. This decreased resistance to Spanish rule. • Cortés encouraged agriculture and thousands of plants were cultivated across the country, increasing New Spain's independence as a colony and encouraging settlement of the whole country.
Explain the importance of the encomienda system in the establishment of a Spanish empire.	• The Encomienda system was important for the establishment of a Spanish empire because it enabled the Spanish to control the land. Evidence to support this is that the Spanish Encomenderos controlled all of the land in the New World but obeyed the laws of Spain and produced what the Spanish wanted. For example, cloth, silver gold, maize and avocado pears. This shows that the encomienda system was important for the establishment of a Spanish empire because it meant that the New World followed the laws and needs of Spain and supplied Spain with materials that it wanted. Therefore the Encomienda system enabled the Spanish to control the land in the New world and establish an empire. • The Encomienda system was important for the creation of a Spanish empire because they ensured that the Spanish would want to colonise the New World. Evidence to support this is that the Encomienderos were like 'little dictators ' who could do as they like with their Encomiendas and the peoples who lived on them. The land was passed from father to son like a kingdom. This shows that the encomienda system was important for the creation of a Spanish empire because it provided an incentive for Spanish people to move to and settle in the New World. Therefore the encomienda system resulted in the establishment of a Spanish empire.

Key Words

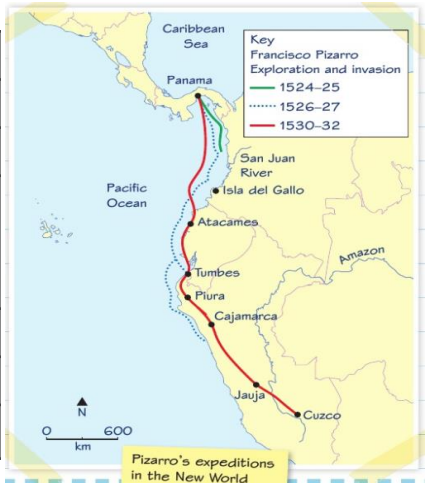
6	**New Spain**	The name given by Spain to the Aztec Empire conquered by Cortés, centred on Mexico.
7	**Council of the Indies**	A council of Spanish officials originally set up by Ferdinand and Isabella to study the problems of colonisation in the Caribbean. It was based in Spain. By the time of Charles I, it exercised supreme power over the administration of Spanish lands in the New World.
8	**Encomienda**	A Spanish labour system that rewarded conquerors with the labour of particular groups of conquered non-Christian people. The laborers, in theory, were provided with benefits by the conquerors for whom they laboured, such as protection from other tribes.
9	**Monotheistic**	The belief that there is only one god.
10	**Polytheistic**	The belief in or worship of more than one god.
11	**Tribute**	Payment made regularly to ensure protection/show dependence on a ruler e.g. natives paid tribute to encomenderos such as gold.
12	**Tenochtitlan**	The capital of the Aztec empire: founded in 1325; destroyed by the Spanish in 1521; now the site of Mexico City.
13	**Charles I/V**	King of Spain from 1516-1556/Holy Roman Emperor from 1519 (grandchild of Ferdinand and Isabella).
14	**Friars**	A member of a religious orders of men. Franciscan/Dominican friars worked with the Aztecs to convert them to Christianity.
15	**Hierarchy**	Order of importance.

The Spanish Empire, 1528-1555. 3.1 Pizarro and the conquest of the Incas

1	Francisco Pizarro, a conquistador and mayor of Panama city, launched a series of expeditions southwards to find Peru, which eventually brought him into contact with the Incas. Pizarro's third expedition arrived in Peru in 1532 to find an empire weakened by smallpox. In 1533, Pizarro had Atahuallpa executed and installed Manco, his half-brother, on the throne, leading to the Inca revolt and the siege of Cuzco, 1536-37.

Key Events

2	**1524** – Pizarro's first expedition.
3	**1526-27** – Pizarro's second expedition.
4	**1530-32** – Pizarro's third expedition.
5	**16th November 1532** – **Battle of Cajamarca.** The ambush and seizure of the Inca ruler Atahuallpa by a small Spanish force led by Francisco Pizarro. The Spanish killed thousands of Atahuallpa's commanders, and unarmed attendants in the great plaza of Cajamarca. The capture of Atahuallpa marked the start of the conquest of the Inca.
6	**1533** – The murder of Atahuallpa.
7	**1536** – Revolt of the Incas.
8	**1536-37** – The Siege of Cuzco.



Key Concepts/Questions

Explain two consequences of the Siege of Cuzco (1536-37) for the Spanish conquest of Peru.	•Spanish atrocities throughout the 10 months further lowered morale among the Inca troops, which led to their eventual surrender. •Manco Inca withdrew from Cuzco and launched a new Inca state elsewhere, which meant that the Spanish were able to continue their conquest of Peru without any significant threat. •The Spanish destroyed the Inca settlement at Cuzco and built a Spanish settlement over the top of it, which provided them with a base to help them colonize the rest of Peru. • The conquistadors took gold and silver, shipping some back to Spain. • Disease devastated the Inca population reducing it by 93% by 1591.
Write a narrative account analysing the Spanish conquest of Peru in the years 1528-48.	• In 1528 Pizarro secured a licence from the Spanish Crown that resulted in him being named Governor of Peru. • In 1530 Pizarro arrived in Peru and took advantage of the Inca Civil War, which weakened opposition to Spain's forces. • Pizarro was able to launch a successful attack against Atahualpa, who was executed in 1533. • The capital, Cuzco, was attacked in 1533 and this led to the setting up of a new capital at Lima. • In 1536 the Incas revolted against Spanish rule, leading to a ten-month siege of Cuzco which ultimately resulted in a victory for Spain. • Despite some resistance in 1548, Pedro de la Gasca was able to establish Spanish authority over Peru.
Explain the importance of Pizarro's expedition of 1526-27 for the growth of the Spanish Empire.	• Pizarro's expedition of 1526-27 brought evidence to Spain of Inca wealth, including llamas, silver and gold. • Pizarro's discoveries in his expedition meant that he wanted to launch a further expedition to Peru. However, he was refused permission to do so by the governor of Panama, so he returned to Spain in 1528 to petition the king to approve an expedition to conquer Peru. This resulted in a licence called La Capitulación de Toledo in July 1529, giving Pizarro permission to launch an expedition aimed at adding Peru to the Spanish Empire.

Key Words

9	**Francisco Pizarro**	A conquistador, best known for his expeditions that led to the Spanish conquest of Peru and defeat of the Inca.
10	**Inca Empire**	A civilization which flourished between 1400-1532 CE along the Andes Mountains in South America, in modern day Peru, with the capital city of Cuzco.
11	**Inca**	'Ruler' or 'emperor'. Huayna Capac was his people's Inca. Inca also refers to people living in the Inca Empire.
12	**Huaya Capac**	A powerful Inca Emperor.
13	**Atahuallpa and Huascar**	Sons of Huaya Capac.
14	**Manco**	The half brother of Atahuallpa and Huascar – Pizarro installed him as Inca.
15	**Civil War**	A war between organised groups within the same country.
16	**Smallpox**	An infections disease caused by a virus. Symptoms: a rash that develops into blisters in the mouth and skin. It can cause blindness and death. Survivors have pock-marked skin. This disease reached Peru in 1527 thanks to Spanish expeditions.
17	**Encomienda**	A Spanish labour system that rewarded conquerors with the labour of particular groups of conquered non-Christian people. The laborers, in theory, were provided with benefits by the conquerors for whom they laboured, such as protection from other tribes.
18	**Viceroys**	A ruler exercising authority in a colony on behalf of a monarch. They were appointed to govern Spanish territories.
19	**Mangrove swamp**	Mangroves are small trees that grow along many tropical coastlines. They form dense barriers for people trying to land.
20	**La Capitulación de Toledo**	July 1529 – Authorized Pizarro to conquer Peru.

The Spanish Empire, 1528-1555. 3.2 Expansion of the Spanish Empire

1	The discovery of silver led to the development of mining towns with increased use of slave labour and brought significant wealth to the Spanish Empire. The New World was conquered for Spain by the conquistadors, but the Spanish government had to find a way of governing this newly won territory effectively. The city of La Paz, founded in 1548, became the administrative centre of the Spanish Empire.

Key Events

2	**1524** – The Council of the Indies was formed. This was responsible for the governing of the Spanish Empire, and controlled the colonies and territories.
3	**1527** – Bartolomé de las Casas entered a monastery and wrote 'A Short Account of the Destruction of the Indies.'
4	**1542** – The New Laws were created which intended to improve the lives of the natives.
5	**1545** – Silver was found in Potosi Mountain (Bolivia). It was mined by Spanish.
6	**1546** – Silver was found in Zacatecas mountains (Mexico). By **1550** there were 34 mines mining for silver.
7	**1548** – Silver was found in Guanajuato region (Mexico). It was mined by Spanish.
8	**1548** – La Paz was founded. It became the centre of Spanish authority in the New World..

Key Concepts/Questions

Explain two consequences of the discovery of silver in the Spanish Empire for Spain.	• The huge quantities of silver being shipped back encouraged more Spaniards to move to the New World to seek their fortunes. • The job and wealth opportunities led to vast mining camps being formed in the area around Potosi, increasing the number of Spaniards settled in the New World. • Spaniards moved to the region from Spain due to an increase in the number of skilled jobs available, for example, those connected to the mining industry. • Supply routes and new towns, most notably La Paz, became established on the route connecting Potosi with Lima, entrenching Spanish control.
Write a narrative account analysing the conquistador revolt in Peru, 1544.	• The New Laws were unpopular among the encomenderos as they reduced their power and took away the right to pass their land to heirs. • This led to a serious revolt in Peru led by Gonzalo Pizarro, brother of Francisco Pizarro. • The rebellion was initially successful, and Gonzalo was able to rule the Inca territory for two years. • However, the arrival of a Spanish army resulted in his execution and the restoration of Spanish authority. • The revolt posed a problem about how Spain could govern its territories and control the rebellious encomenderos and conquistadors. This led to the founding of La Paz in 1548.
Explain the importance of viceroys for governing Spain and its Empire in the New World.	• Viceroys in the New World were powerful as they governed on behalf of the Spanish government. • They were the official representative of the Spanish crown. • The laws they passed affected both Spanish and native people.

Key Words

9	**Acquiring**	Gold and silver objects were acquired either as gifts through barter or by stealing. These were melted down and formed into ingots (block of gold or silver).
10	**Prospecting**	The process of searching for gold and silver. The Spanish began prospecting for gold. Many employed natives to wash out surface gold from streams and rivers.
11	**Mining**	Digging for gold and silver. In the **1530s** the Spanish took over existing gold mines from the natives. In the **1540s**, extensive deposits were found and silver mines opened.
12	**Smelt**	The process of heating the rock until the mineral turns to liquid.
13	**Ore**	A naturally occurring solid material from which a metal or valuable mineral can be extracted e.g. gold or silver.
14	**Viceroy**	A ruler exercising authority in a colony on behalf of a monarch. They were appointed to govern Spanish territories.
15	**Cabildos**	The town councils in the New World that managed daily life following orders from the Viceroy.
16	**Audiencia courts**	Courts that managed justice in the New World.
27	**Bartolomé de las Casas**	A priest who travelled to the New World in 1512. He wrote about the atrocities faced by the natives, and he supported New Laws.
18	**La Paz 1548**	A town that was founded to commemorate the ending of Pizarro's revolt and to demonstrate that Spain was the highest authority – not the conquistadors.

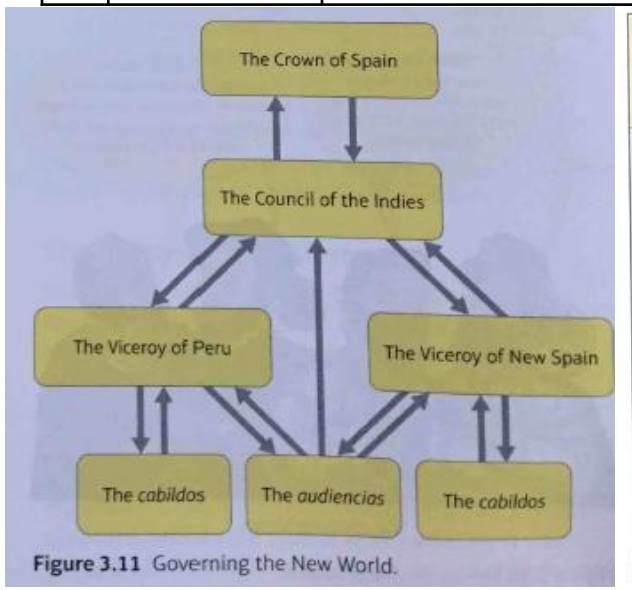


Figure 3.11 Governing the New World.

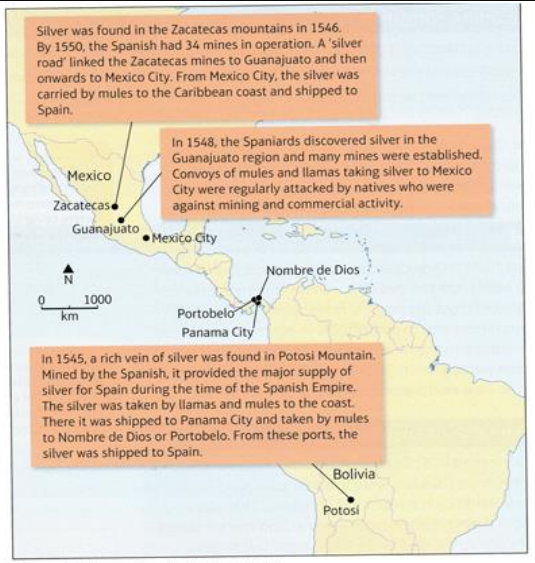
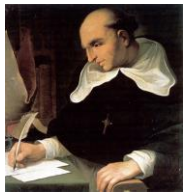


Figure 3.9 Silver mines in the New World.

The Spanish Empire, 1528-1555. 3.3 The impact of the New World on Spain

1	Silver, and some gold, was used to make coins and played an important role in enabling Spain to trade with the wider world. Spain's monopoly of trade with the New World led to the development of Seville as a port, and growing labour shortages led to an expansion of the slave trade. A system of government, based in Castile, Spain, was developed to govern the New World. The role of the Casa de Contratación and the Council of the Indies was to regulate trade.



Key Events

2	**1520s** – Bullion (treasure) arrived in Spain.
3	**1522** – The Spanish government sent fleets of ships to escort returning ships into port.
4	**1542** – Full scale war with France. Attacks on Spanish treasure fleets intensified.
5	**1542-46** – Spain adapted ships and developed systems to protect their fleets.
6	**1543** – Consulado de Mercaderes (merchants' guild) was founded.
7	**By 1555** – Seville had the monopoly on trade with the New World.

Key Concepts/Questions

Explain two consequences of the encomienda system in the New World.	• The encomienda system brought the land under the control of Spanish families, who imposed Spanish laws and systems on the New World. This increased Spanish control. • *Encomiendas* were hereditary (passed from father to son). As a result, families moved to the New World and settled permanently, creating a permanent society. • Native labour formed part of the encomienda system. As a result, millions of natives became enslaved. • The most lucrative *encomiendas* were reserved for the biggest investors, which meant that more people were encouraged to join and invest in conquest expeditions, leading to further conquest.
Write a narrative account analysing the effect of silver on Spain's economy.	• 75% of the treasure that arrived in Spain went to Spanish merchants and conquistadors. The rest went to the Spanish treasury. • It was used to make 'pieces of eight' (pesos), which allowed extensive trade with other European countries. • Demand for goods increased, which enabled foreign traders to put up their prices. • This led to inflation as Spanish merchants passed on price rises to ordinary people, many of whom demanded higher wages. • The silver was vital to support Spain's European Empire, equipping soldiers to make war against France (1542-46) and providing ships to guard the treasure fleets. • However, as Spain's economy was based on the looted silver, people did not have to make money in other ways, with the result that Spanish industries developed more slowly than in other European countries.
Explain the importance of the New Laws (1542) for governing the New World.	• The laws were intended to improve the rights of the native people, but encomenderos opposed them and the Viceroy of Peru refused to implement them. • This led to revolts in Peru: the most serious (1544) had to be put down by the Spanish government and led to a temporary halt in the Spanish conquest of the New World in 1550. • Though forced to suspend the New Laws, Charles I insisted that encomiendas be passed back to the Crown on the death of an encomendero, with Royal Agents in charge. The agents continued to exploit the native people, against the wishes of Las Casas.

Key Words

8	**Monopoly**	Complete control – in this case, over trade with another country.
9	**Bullion**	A word that refers to all kinds of treasure – but mainly gold and silver.
10	**Pieces of eight**	Silver coins.
11	**Inflation**	A situation where prices rise more quickly than wages.
12	**Privateers**	Private ships that were licensed by rival governments (e.g England, France, Portugal) to attack, sink or capture enemy ships.
13	**Broadside**	A ship firing broadside fired its canons from the sides of the ship.
14	**Galleons**	Spanish ships.
15	**'Tierra Firma'**	A convoy system to protect ships. This route sailed to South America.
16	**'New Spain'**	A convoy system to protect ships. This route sailed to Mexico.
17	**Seville**	A port in Spain. It became one of wealthiest cities in Europe by 1550.
18	**Casa de Contratación**	House of Trade – A system of government, based in Castile, Spain, was developed to govern the New World.
19	**Consulado de Mercaderes**	A merchant's guild (group) that worked with the Casa de Contratación to control trade with the New World.
20	**Council of the Indies**	Controlled all matters involving New World. They sent orders to the Viceroys in the new World.
21	**Encomienda**	A Spanish labour system that rewarded conquerors with the labour of particular groups of conquered non-Christian people. The laborers, in theory, were provided with benefits by the conquerors for whom they laboured, such as protection from other tribes.

GCSE Mathematics Foundation Tier

Number · Algebra · Ratio, proportion and rates of change · Geometry & measures · Probability · Statistics

Here is pretty much all the Foundation Tier content we could fit onto an A3 sheet of paper, including all the formulae you are required to know for GCSE. An ➔ points to an illustrative example. The codes refer to the DfE subject content. Pin this to a wall, keep it on your desk, carry it in your bag, make notes on it (sorry, don't take it into the examination)…

BIDMAS N3

…or BODMAS. Use the correct order of operations; take care when using a calculator.

- **B**rackets
- **I**ndices (or p**O**wers)
- **D**ivision and **M**ultiplication
- **A**ddition and **S**ubtraction

Types of number N4

Integer: a "whole" number
Factors; the divisors of an integer
➔ **Factors of 12 are 1, 2, 3 ,4, 6, 12**
Multiples; a "times table" for an integer (will continue indefinitely)
➔ **Multiples of 12 are 12, 24, 36 …**
Prime number: an integer which has exactly two factors (1 and the number itself). Note: 1 is not a prime number.

HCF, LCM N4

Highest **C**ommon **F**actor (HCF)
➔ **Factors of 6 are 1, 2, 3, 6**
Factors of 9 are 1, 3, 9
HCF of 6 and 9 is 3
Lowest **C**ommon **M**ultiple (LCM)
➔ **Multiples of 6 are 6, 12, 18, 24, …**
Multiples of 9 are 9, 18, 27, 36, …
LCM of 6 and 9 is 18

Prime factors N4

Write a number as a product of its prime factors; use indices for repeated factors:
➔ $720 = 5 \times 3^2 \times 2^4$

Powers and roots N6, N7

Special indices: for any value a:

$$a^0 = 1$$

$$a^{-n} = \frac{1}{a^n}$$

➔ $3^{-4} = \frac{1}{3^4} = \frac{1}{81}$

Calculating with fractions N8

Adding or subtracting fractions; use a common denominator…
➔ $\frac{4}{5} - \frac{1}{3} = \frac{12}{15} - \frac{5}{15} = \frac{7}{15}$
Multiplying fractions; multiply numerators and denominators…
➔ $\frac{4}{7} \times \frac{2}{3} = \frac{8}{21}$
Dividing fractions; "flip" the second fraction, then multiply…
➔ $\frac{2}{7} \div \frac{5}{6} = \frac{2}{7} \times \frac{6}{5} = \frac{12}{35}$

Fractions, decimals N10

Fraction is numerator ÷ denominator
➔ $\frac{5}{8} = 5 \div 8 = 0.625$
Use place values to change decimals to fractions. Simplify where possible.
➔ $0.45 = \frac{45}{100} = \frac{9}{20}$
Learn the most frequently used ones:

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{3}{4}$
0.5	0.25	0.1	0.2	0.75

Surds N8

Look for the biggest square number factor of the number:
➔ $\sqrt{80} = \sqrt{16 \times 5} = 4\sqrt{5}$

Standard form N9

Standard form numbers are of the form $a \times 10^n$, where $1 \le a < 10$ and n is an integer.

Standard units N13

1 tonne = 1 000 kilograms
1 kilogram = 1 000 grams

1 kilometre = 1 000 metres
1 metre = 100 centimetres
= 1 000 millimetres
1 centimetre = 10 millimetres

1 day = 24 hours
1 hour = 60 minutes = 3 600 seconds
1 minute = 60 seconds

Rounding N15

Truncate the number, then use a "decider digit" to round up or down.
Decimal places: use the decimal point
➔ **162.3681 to 2dp;**
162.36 | 81 **= 162.37 to 2dp**
Significant figures: use the first non-zero digit.
➔ **162.3681 to 2sf;**
16 | 2.3681 **= 160 to 2sf**
➔ **0.007 039 to 3sf;**
0.007 03 | 9 **= 0.007 04 to 3sf**

Error intervals N15

Find the range of numbers that will round to a given value:
➔ $x = 5.83$ **(2 decimal places)**
$5.825 \le x < 5.835$
➔ $y = 46$ **(2 significant figures)**
$45.5 \le y < 46.5$
Note use of ≤ and <, and that the last significant figure of each is 5.

Algebraic notation A1

$$ab = a \times b$$
$$3y = y + y + y$$
$$a^2 = a \times a$$
$$a^3 = a \times a \times a$$
$$a^2b = a \times a \times b$$
$$\frac{a}{b} = a \div b$$

Equations and identities A3

An equation is true for some particular value of x…
➔ $2x + 1 = 7$ **is true if** $x = 3$
…but an identity is true for every value of x
➔ $(x + a)^2 \equiv x^2 + 2ax + a^2$
(note the use of the symbol ≡)

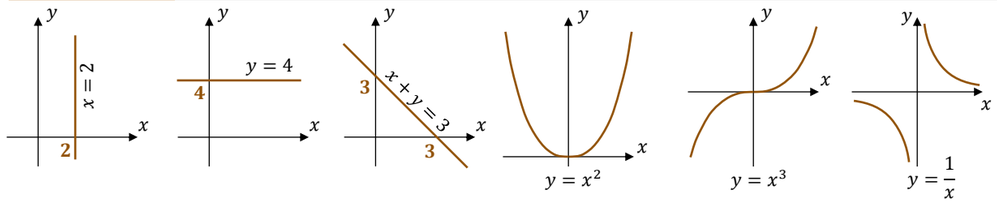
Laws of indices A4

For any value a:

$$a^x \times a^y = a^{x+y}$$
$$\frac{a^x}{a^y} = a^{x-y}$$
$$(a^x)^y = a^{xy}$$

➔ $\left(\frac{2pq^4}{p^3q}\right)^3 = \frac{8p^3q^{12}}{p^9q^3} = \frac{8q^9}{p^6}$ or $8q^9p^{-6}$

Standard graphs A12



$y = mx + c$ A9

Equation of straight line $y = mx + c$
m is the gradient; c is the y intercept:
➔ **Find the equation of the line that joins (0 , 3) to (2 , 11)**
Find its gradient…

$$\frac{11 - 3}{2 - 0} = \frac{8}{2} = 4$$

…and its y intercept…
Passes through (0 , 3), so c = 3.
Equation is $y = 4x + 3$.

Parallel lines: gradients are equal;
➔ $y = 2x + 3$ **and** $y = 2x - 5$ **both have gradient 2, so are parallel.**

Expanding brackets A4

$$p(q + r) = pq + pr$$
➔ $5(x - 2y) = 5x - 10y$
$$(x + a)(x + b) = x^2 + ax + bx + ab$$
➔ $(2x - 3)(x + 5)$
$= 2x^2 - 3x + 10x - 15$
$= 2x^2 + 7x - 15$
Reverse of expanding is factorising - putting an expression into brackets.

Quadratics A18

Solve a quadratic by factorising.
➔ **Solve** $x^2 - 8x + 15 = 0$
Put into brackets (taking care with any negative numbers)…
$(x - 3)(x - 5) = 0$
…then either $x - 3 = 0$ or $x - 5 = 0$, so that $x = 3$ **or** $x = 5$.

Difference of two squares A4

$$a^2 - b^2 = (a + b)(a - b)$$
➔ $x^2 - 25 = (x + 5)(x - 5)$

Simultaneous equations A19

➔ **Solve** $\begin{cases} 2x + 3y = 11 \\ 3x - 5y = 7 \end{cases}$
Multiply to match a term in x or y
$\begin{cases} 10x + 15y = 55 \\ 9x - 15y = 21 \end{cases}$
Add or subtract to cancel…
$19x = 76$, **so** $x = 4$
Finally, substitute and solve…
$2 \times 4 + 3y = 11$, **so** $y = 1$

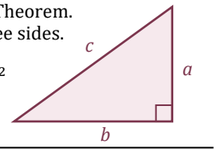
Rearrange a formula A5

The subject of a formula is the term on its own. Use rules that "balance" the formula to change its subject
➔ **Make** x **the subject of**
$2x + 3y = z$
Here, subtract $3y$ from both sides…
$2x = z - 3y$
…then divide both sides by 2…

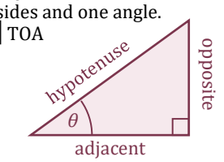
$$x = \frac{z - 3y}{2}$$

Right angled triangles G20, G22

Pythagoras Theorem.
Links all three sides.
No angles.
$a^2 + b^2 = c^2$



Trigonometry.
Links two sides and one angle.
SOH | CAH | TOA



$\sin\theta = \frac{\text{opp}}{\text{hyp}}$ $\cos\theta = \frac{\text{adj}}{\text{hyp}}$ $\tan\theta = \frac{\text{opp}}{\text{adj}}$

Use "2ndF" or "SHIFT" key to find a missing angle

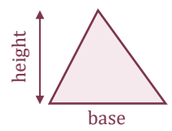
The longest side of any right angled triangle is the hypotenuse; check that your answer is consistent with this.

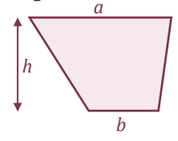
Special values of sin, cos, tan
Learn (or be able to find without a calculator)…

$\theta°$	$\sin\theta°$	$\cos\theta°$	$\tan\theta°$
0	0	1	1
30	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{3}}$
45	$\frac{1}{\sqrt{2}}$	$\frac{1}{\sqrt{2}}$	1
60	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$\sqrt{3}$
90	1	0	

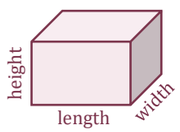
Areas and volumes G16, G17, G18, G23

Area of triangle = $\frac{1}{2} \times$ base $\times$ height



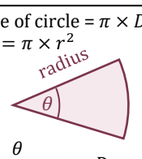


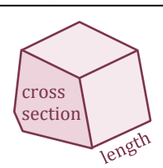
Volume of cuboid = length × width × height

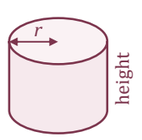


Area of trapezium = $\frac{1}{2}(a + b) \times h$

Circumference of circle = $\pi \times D$
Area of circle = $\pi \times r^2$







Arc length = $\frac{\theta}{360°} \times \pi \times D$

Area of sector = $\frac{\theta}{360°} \times \pi \times r^2$

Volume of cylinder = $\pi r^2 \times$ height

Volume of prism = area of cross section × length

Transformations G7, G8

Reflection
- Line of reflection

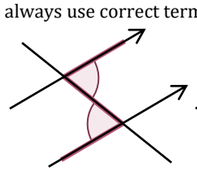
Translation
- Vector

Rotation
- Centre of rotation
- Angle of rotation
- Clockwise or anticlockwise

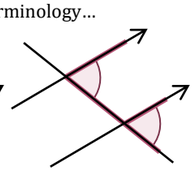
Enlargement
- Centre of enlargement
- Scale factor (if SF < 1 the shape will get smaller).

Angle facts G3

Equal angles in parallel lines: always use correct terminology…

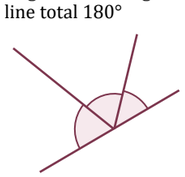


Alternate angles

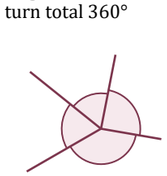


Corresponding angles

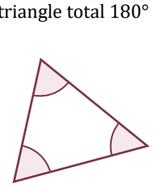
Angles on a straight line total 180°



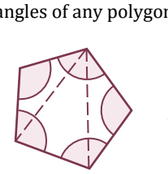
Angles in a full turn total 360°



Interior angles in a triangle total 180°

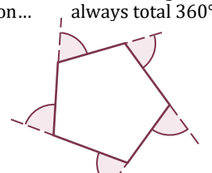


Use this for the interior angles of any polygon…



…or 180° × $(n - 2)$

Exterior angles always total 360°



Sequences A24, A25

Triangular numbers:

1st	2nd	3rd	4th	5th
1	3	6	10	15

Square numbers ($n^2 = n \times n$):

1^2	2^2	3^2	4^2	5^2
1	4	9	16	25

Cube numbers ($n^3 = n \times n \times n$):

1^3	2^3	3^3	4^3	5^3
1	8	27	64	125

nth term of an arithmetic (linear) sequence is $an + d$
➔ n**th term of 5,8,11,14,… is** $3n$**+2 (always increases by 3; first term is** $3 \times 1 + 2 = 5$.**)**
Geometric sequence; multiply each term by a constant ratio
➔ **3, 6, 12, 24, … (ratio is 2)**
Fibonacci sequence; make the next term by adding the previous two …
➔ **2, 4, 6, 10, 16, 26, 42, …**

Probability P8, P9

$$p = \frac{n(\text{equally likely favourable outcomes})}{n(\text{equally likely possible outcomes})}$$

$p = 0$	impossible
$0 < p < 0.5$	unlikely
$p = 0.5$	evens
$0.5 < p < 1$	likely
$p = 1$	certain

Probability rules P8, P9

Multiply for independent events
➔ **P(6 on dice and H on coin)**

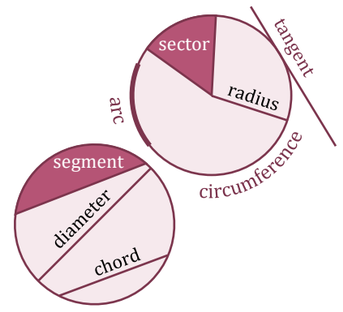
$$\frac{1}{6} \times \frac{1}{2} = \frac{1}{12}$$

Add for mutually exclusive events
➔ **P(5 or 6 on dice)**

$$\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$$

Apply these rules to tree diagrams.

Parts of a circle G9



Division using ratio R5

Use a ratio for unequal sharing
➔ **Divide £480 in the ratio 7 : 5**
7 + 5 = 12, then £480 ÷ 12 = £40
7 × £40 = £280, 5 × £40 = £200
(check: £280 + £200 = £480 ✓)

Ratio and fractions R8

Link between ratios and fractions
➔ **Boys to girls in ratio 2 : 3**
$\frac{2}{5}$ **are boys,** $\frac{3}{5}$ **are girls.**

Percentages R9

$$y \text{ percent of } x = \frac{y}{100} \times x$$

➔ **Increase £58 by 26%.**

$$\frac{26}{100} \times £58 = £15.08$$

£58 + £15.08 = £73.08

$$y \text{ as a percentage of } x = \frac{y}{x} \times 100\%$$

➔ **The population of a town increases from 3 500 to 4 620. Find the percentage increase.**

$$\frac{1\,120}{3\,500} \times 100\% = 32\%$$

Note: fraction $= \frac{\text{increase}}{\text{original}}$

Learn the most frequently used ones:

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{100}$
50%	25%	10%	20%	1%

Speed, distance, time R11

$$\text{Speed} = \frac{\text{distance}}{\text{time}}$$

➔ **A car travels 90 miles in 1 hour, 30 minutes. Find its average speed.**
90 miles ÷ 1.5 hours = 60 mph

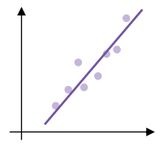
Averages S4

Mode: most frequently occurring
Median: put the data in numerical order, then choose the middle one

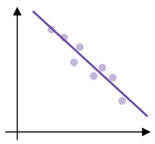
$$\text{Mean} = \frac{\text{total of items of data}}{\text{number of items of data}}$$

Correlation S6

Positive correlation



Negative correlation



GCSE Mathematics Higher Tier

Number · Algebra · Ratio, proportion and rates of change · Geometry & measures · Probability · Statistics

Here is pretty much all the Higher Tier content we could fit onto an A3 sheet of paper, including all the formulae you are required to know for GCSE. An ➔ points to an illustrative example. The codes refer to the DfE subject content. Pin this to a wall, keep it on your desk, carry it in your bag, make notes on it (sorry, don't take it into the examination)…

Listing strategies N5

Product rule for counting:
➔ **$4 \times 3 \times 2 \times 1 = 24$ ways to arrange the letters P, I, X and L.**

Powers and roots N6, N7

Special indices: for any value a:

$$a^0 = 1$$
$$a^{-n} = \frac{1}{a^n}$$
$$a^{\left(\frac{p}{q}\right)} = \sqrt[q]{a^p}$$

➔ $3^{-4} = \frac{1}{3^4} = \frac{1}{81}$

➔ $8^{\left(\frac{2}{3}\right)} = \sqrt[3]{8^2} = 4$

Surds N8

Look for the biggest square number factor of the number:
➔ $\sqrt{80} = \sqrt{16 \times 5} = 4\sqrt{5}$

Rationalise the denominator N8

Multiply the numerator and denominator by an expression that makes the denominator an integer:

➔ $\frac{4}{\sqrt{7}} = \frac{4 \times \sqrt{7}}{\sqrt{7} \times \sqrt{7}} = \frac{4\sqrt{7}}{7}$

➔ $\frac{2}{4+\sqrt{5}}$

$= \frac{2}{4-\sqrt{5}} \times \frac{4-\sqrt{5}}{4-\sqrt{5}} = \frac{2(4-\sqrt{5})}{11}$

Standard form N9

Standard form numbers are of the form $a \times 10^n$, where $1 \le a < 10$ and n is an integer.

Recurring decimals N10

Make a recurring decimal a fraction:
➔ $n = 0.2\dot{3}6$
(two digits are in the recurring pattern, so multiply by 100)
$100n = 23.\dot{6}$
(this is the same as $23.6\dot{3}6\dot{)}$
$99n = 23.6\dot{3}6 - 0.2\dot{3}6 = 23.4$
$n = \frac{23.4}{99} = \frac{234}{990} = \frac{13}{55}$

Error intervals N15

Find the range of numbers that will round to a given value:
➔ **$x = 5.83$ (2 decimal places)**
$5.825 \le x < 5.835$
➔ **$y = 46$ (2 significant figures)**
$45.5 \le y < 46.5$
Note use of ≤ and <, and that the last significant figure of each is 5.

Equations and identities A3

An equation is true for some particular value of x…
➔ **$2x + 1 = 7$ is true if $x = 3$**
…but an identity is true for every value of x
➔ $(x + a)^2 \equiv x^2 + 2ax + a^2$
(note the use of the symbol ≡)

Laws of indices A4

For any value a:

$$a^x \times a^y = a^{x+y}$$
$$\frac{a^x}{a^y} = a^{x-y}$$
$$(a^x)^y = a^{xy}$$

➔ $\left(\frac{2pq^4}{p^3q}\right)^3 = \frac{8p^3q^{12}}{p^9q^3} = \frac{8q^9}{p^6}$ or $8q^9p^{-6}$

Difference of two squares A4

$$a^2 - b^2 = (a+b)(a-b)$$
➔ $x^2 - 25 = (x+5)(x-5)$

Rearrange a formula A5

The subject of a formula is the term on its own. Rearrange to
➔ **Make x the subject of**

$$2x + ay = y - bx$$
$$2x + bx = y - ay$$
$$x(2+b) = y - ay$$
$$x = \frac{y-ay}{2+b}$$

Functions A7

Combining functions:
$fg(x) = f(g(x))$
➔ **If $f(x) = x + 3$ and $g(x) = x^2$**
$fg(x) = x^2 + 3$
$gf(x) = (x+3)^2$

The inverse of f is f^{-1}
➔ **If $f(x) = 2x + 5$ then**
$f^{-1}(x) = \frac{x-5}{2}$

$y = mx + c$ A9

Equation of straight line $y = mx + c$
m is the gradient; c is the y intercept:
➔ **Find the equation of the line that joins (0 , 3) to (2 , 11)**
Find its gradient…
$\frac{11-3}{2-0} = \frac{8}{2} = 4$
…and its y intercept…
Passes through (0 , 3), so c = 3.
Equation is $y = 4x + 3$.

Parallel lines: gradients are equal; perpendicular lines: gradients are "negative reciprocals".
➔ **$y = 2x + 3$ and $y = 2x - 5$ are parallel to each other; $y = 2x + 3$ and $y = -\frac{1}{2}x + 3$ are perpendicular**

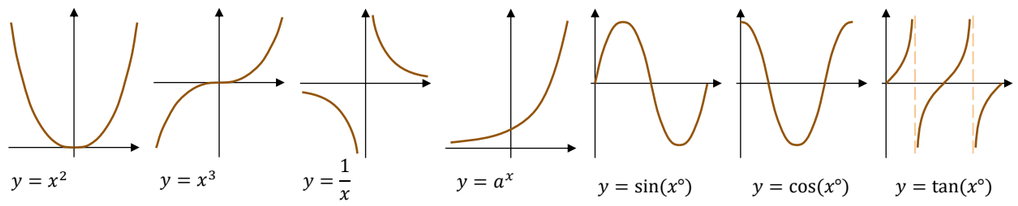
Transformations of curves A13

Starting with the curve $y = f(x)$:
Translate $\binom{0}{a}$ for $y = f(x) + a$
Translate $\binom{-a}{0}$ for $y = f(x + a)$
Reflect in x axis for $y = -f(x)$
Reflect y axis for $y = f(-x)$

Velocity - time graph A15

Gradient = acceleration (you may need to draw a tangent to the curve at a point to find the gradient);
Area under curve = distance travelled.

Standard graphs A12



Quadratics A11, A18

If a quadratic equation cannot be factorised, use the formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

➔ **Solve $2x^2 + 3x - 7 = 0$**

$x = \frac{-3-\sqrt{9-(-56)}}{2\times2} = -2.73$

or $x = \frac{-3+\sqrt{9-(-56)}}{2\times2} = 1.23$

Complete the square to find the turning point of a quadratic graph.
➔ $y = x^2 - 6x + 2$
$y = (x-3)^2 - 9 + 2$
$y = (x-3)^2 - 7$
Turning point is (3 , –7)

Equation of a circle A16

$x^2 + y^2 = r^2$ is a circle with centre (0 ,0) and radius r.
➔ **$x^2 + y^2 = 25$ has centre (0 , 0) and radius 5.**

Simultaneous equations A19

One linear, one quadratic;
➔ **Solve $\begin{cases} x + 3y = 10 \\ x^2 + y^2 = 20 \end{cases}$**
Rearrange the linear, and substitute into the quadratic
$x = 10 - 3y$
$\text{so } (10 - 3y)^2 + y^2 = 20$
Expand and solve the quadratic
$100 - 60y + 9y^2 + y^2 = 20$
$10y^2 - 60y + 80 = 0$
$y = 2 \text{ or } y = 4$
Finally, substitute into the linear and solve, pairing values…
$x + 3 \times 2 = 10 \text{ so } (x , y) = (4 , 2)$
$x + 3 \times 4 = 10 \text{ so } (x , y) = (-2 , 4)$

Sequences A24, A25

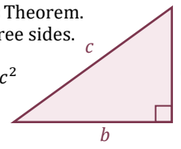
nth term of an arithmetic (linear) sequence is $bn + c$
➔ **nth term of 5,8,11,14,… is $3n+2$ (always increases by 3; first term is $3 \times 1 + 2 = 5$.)**
nth term of a quadratic sequence is $an^2 + bn + c$
➔ **First three terms of $n^2 + 3n - 1$ are 3, 9, 17, …**
Geometric sequence; multiply each term by a constant ratio
➔ **3, 6, 12, 24, … (ratio is 2)**
Fibonacci sequence; make the next term by adding the previous two …
➔ **2, 4, 6, 10, 16, 26, 42, …**

Iteration A20

You will be given the formula to use:
➔ **Solve $x^3 + 6x + 4 = 0$ by using the iteration $x_{n+1} = \sqrt[3]{6x_n - 4}$.**
Start with $x_1 = -2.8$.
$x_2 = \sqrt[3]{6 \times (-2.8) - 4} = -2.750\ldots$
$x_3 = \sqrt[3]{6 \times (-2.750\ldots) - 4} = \cdots$
Repeat until you know the solution, or you do as many as the question says.

Right angled triangles G20

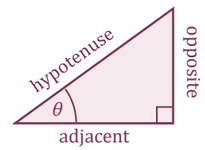
Pythagoras Theorem.
Links all three sides.
No angles.
$a^2 + b^2 = c^2$



Trigonometry.
Links two sides and one angle.
SOH | CAH | TOA

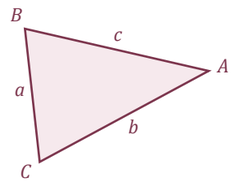
$\sin\theta = \frac{\text{opp}}{\text{hyp}}$ $\cos\theta = \frac{\text{adj}}{\text{hyp}}$ $\tan\theta = \frac{\text{opp}}{\text{adj}}$

Use "2ndF" or "SHIFT" key to find a missing angle



The longest side of any right angled triangle is the hypotenuse; check that your answer is consistent with this.

Advanced trigonometry G21, G22



A is opposite a
B is opposite b
C is opposite c

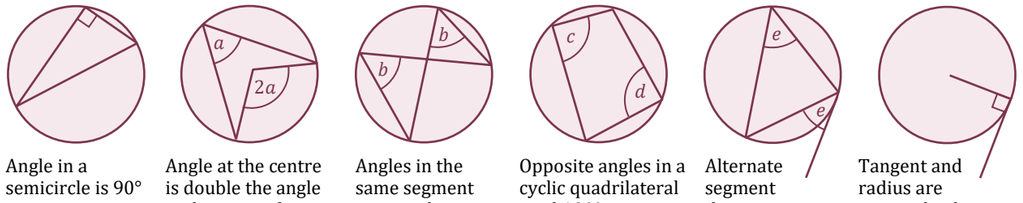
Sine Rule
Use if you are given an angle-side pair
Missing side: $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$
Missing angle: $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$

Cosine Rule
Use if you can't use the sine rule
Missing side: $a^2 = b^2 + c^2 - 2bc\cos A$
Missing angle: $\cos A = \frac{b^2 + c^2 - a^2}{2bc}$

Special values of sin, cos, tan
Learn (or be able to find without a calculator)…

$\sin0° = 0$,	$\cos0° = 1$,	$\tan0° = 0$
$\sin30° = \frac{1}{2}$,	$\cos30° = \frac{\sqrt{3}}{2}$,	$\tan30° = \frac{1}{\sqrt{3}}$
$\sin45° = \frac{1}{\sqrt{2}}$,	$\cos45° = \frac{1}{\sqrt{2}}$,	$\tan45° = 1$
$\sin60° = \frac{\sqrt{3}}{2}$,	$\cos60° = \frac{1}{2}$,	$\tan60° = \sqrt{3}$
$\sin90° = 1$,	$\cos90° = 0$	

Circle theorems G10



Angle in a semicircle is 90°

Angle at the centre is double the angle at the circumference

Angles in the same segment are equal

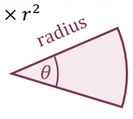
Opposite angles in a cyclic quadrilateral total 180°

Alternate segment theorem

Tangent and radius are perpendicular

Areas and volumes G16, G17, G18, G23

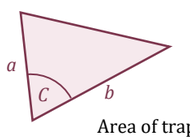
Circumference of circle = $\pi \times D$
Area of circle = $\pi \times r^2$

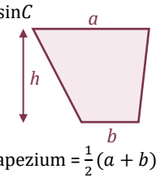


Arc length = $\frac{\theta}{360°} \times \pi \times D$

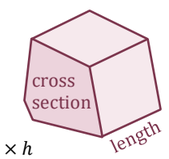
Area of sector = $\frac{\theta}{360°} \times \pi \times r^2$

Area of triangle = $\frac{1}{2}ab\sin C$

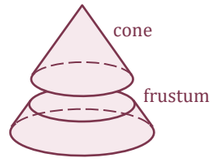




Area of trapezium = $\frac{1}{2}(a+b) \times h$



Volume of prism = area of cross section × length



Volume of cone = $\frac{1}{3}\pi r^2 h$
Volume of frustum is difference between the volumes of two cones

Transformations G7, G8

Reflection
- Line of reflection

Translation
- Vector

Rotation
- Centre of rotation
- Angle of rotation
- Clockwise or anticlockwise

Enlargement
- Centre of enlargement
- Scale factor (if −1 < SF < 1 the shape will get smaller).

Similar shapes G19

Ratios in similar shapes and solids:

• Length/perimeter	$1:n$	$a:b$
• Area	$1:n^2$	$a^2:b^2$
• Volume	$1:n^3$	$a^3:b^3$

Percentages: multipliers R9, R16

Percentage increase or decrease; use a multiplier (powers for repetition)
➔ **Initially there were 20 000 fish in a lake. The number decreases by 15% each year. Estimate the number of fish after 6 years.**
$20\,000 \times 0.85^6 = 7\,500$ (2sf)

Formula for compound interest
Total accrued = $P\left(1 + \frac{r}{100}\right)^n$
➔ **I invest £600 at 3% compound interest. What is my account worth after 5 years?**
$£600 \times \left(1 + \frac{3}{100}\right)^5 = £695.56$

Direct & inverse proportion R10

y is directly proportional to x:
$y = kx$ for a constant k
➔ **b is directly proportional to a^2; $a = 6$ when $b = 90$. Find b if $a = 8$.**
$b = ka^2$; $a = 6$ and $b = 90$ for k;
$90 = k \times 6^2$ so $k = 2.5$, $b = 2.5a^2$
$b = 2.5 \times 8^2 = 160$
y is inversely proportional to x:
$yx = k$ or $y = \frac{k}{x}$ for a constant k

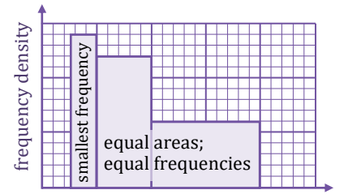
Probability rules P8, P9

Multiply for independent events
➔ **P(6 on dice and H on coin)**
$\frac{1}{6} \times \frac{1}{2} = \frac{1}{12}$
Add for mutually exclusive events
➔ **P(5 or 6 on dice)**
$\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$
Apply these rules to tree diagrams.

In general…
P(A or B) = P(A) + P(B) − P(A and B)
P(A and B) = P(A given B) × P(B)

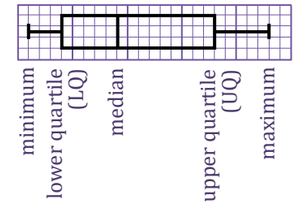
Histograms S3

Frequency = frequency density multiplied by class width. This means that bars with the same frequency have the same area.



Box plots S4

Interquartile range (IQR) = UQ − LQ



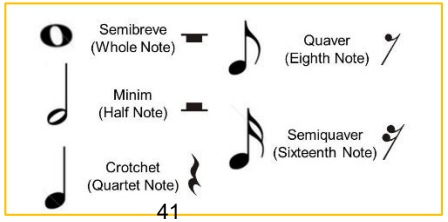
Music Composition Knowledge Organiser

Steps to create your own composition	
Be able to generate musical ideas from starting points	
Generating material	Pitches, rhythms, chords, harmonic systems, themes, texts, images.
Musical starting points	Hooks and riffs, melodic ideas, rhythmic pattern, chord progressions, sound pallets.
Working to a brief	Interpreting a brief and devising appropriate musical ideas.
Know how to extend, develop and manipulate musical material	
Extending and developing an idea	Repetition, decoration, variation, sequence and contrast.
Manipulating techniques	Transposition, transformations (inversion, retrograde, retrograde inversion) and processes (canon, phrasing, addition, subtraction, augmentation, diminution, displacement).
Working with layers	Instrumentation, textures, contrasts.
Be able to form musical material into completed compositions	
Form and structure	Binary, ternary, rondo, arch, ground bass, introductions, codas, song structures, 12-bar blues, effective use of repetition and contrast.
Pace	Maintaining momentum, contrasts, balancing repetition and change.
Be able to present compositions appropriately	
Appropriate presentation methods	Conventions of particular styles, genres and scores
Type of score	Full score, lead sheet, chord chart, relevant computer software.

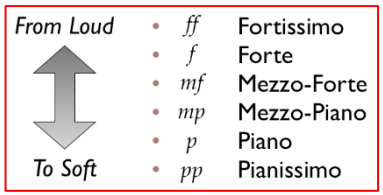
Musical Element	Definition	Examples
Dynamics	The volume of a piece of music.	piano, forte, crescendo and diminuendo.
Rhythm	The pattern of beats.	Semibreve, minim, crotchet, quaver, semiquaver, rests, broken chords, triplets.
Pitch	The intervals between different notes.	High, low, ascending, descending, stepwise
Structure	The sections that make up the music.	Binary, ternary, rondo, arch, ground bass, introduction, codas, 12-bar blues,
Melody	The main tune	Scalic, passing note, repetition, phrases, ostinato
Instrumentation	The different instruments used within the music.	Orchestra, pop band, chamber band, choir, duet, trio.
Texture	The different layers within the music.	Monophonic, homophonic, polyphonic, melody and accompaniment.
Tonality	The key the music is in	Major, minor, modal, chromatic.
Tempo	The speed of the music.	Allegro, Adagio, Andante, Largo, Presto
Timbre	The sound quality of each instrument.	Deep, light, clear, dark
Harmony	The way the notes sound together.	Chords, added note chords, inversions, transpositions.

Musical Symbols

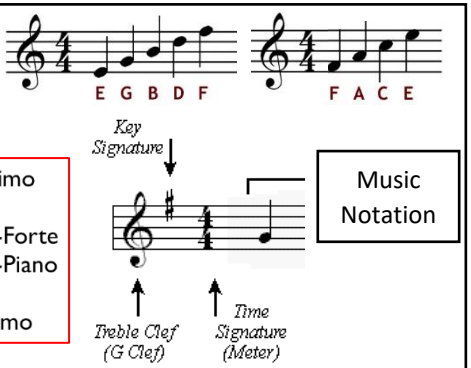
Rhythmic Notation



Dynamics

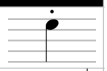
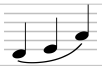
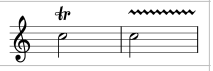


Music Notation



WCT 1650-1910: **Wolfgang Amadeus Mozart** 27th Jan 1756 - 5th Dec 1791
Clarinet Concerto in A Mvt III Rondo (For Anton Stadler: Friend and Virtuosic Clarinettist**)**

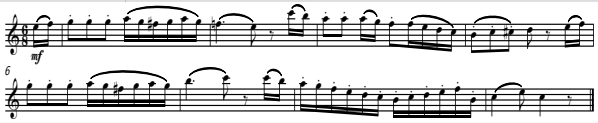
Key terms	
1. (H) Tonic	I degree of a scale (In A = A)
2. (H) Dominant	V degree of a scale (In A = E)
3. (H) Sub-dominant	IV degree of a scale (In A = D)
4. (H) Tonic Pedal	A repeated note in the bass on the tonic
5. (H) Harmonic Flux	Extended use of falling chromatics
6. (H) Dominant Key	E Major (4#'s - F, C, G, D)
7. (H) Relative Minor Key	F# minor (3#'s - F, C, G)
8. (H) Sub-dominant Key	D Major (2#'s - F, C)
9. (H) Inversion	Notes of a chord in a different order
10. (H) Discord	Lack of harmony between notes
11. (I) Quintet	Five instrument ensemble
12. (I) Contrabasso	Double bass
13. (I) Orchestral Instrument Omissions	Oboes, trumpets and timpani
14. (I) Fagotti	Bassoon
15. (M) Basset Horn (Clarinet in F) - Transposition	Sounds a fifth lower (C = F)
16. (M) Chalumeau register	Lowest register (written) Low E - B♭ above middle C
17. (M) Clarion register	Middle register (written) B above middle C - C two octaves above
18. (M) Altissimo register	Top register (written) notes above the C two octaves above middle C
19. (M) Horns in A - Transposition	Sound a minor third below written pitch (C = A)
20. (M) Clarinet in A - Transposition	Sounds a minor third below written pitch (D = B)
21. (M) Theme	A recognisable melody/motif
22. (M) Chromatic	A non-diatonic note
23. (M) Two bar balanced phrase	A complete musical idea lasting two bars
24. (M) Sequence	A restatement of the melody at a higher/lower pitch
25. (R) Compound time	Time signatures where the top number is divisible by three
26. (R) Anacrusis	Unstressed note before the bar-line/ downbeat
27. (R) Syncopation	Stressing a normally unaccented beat
28. (T) Chamber feel	Strings only
29. (T) Tutti	All play together
30. (T) Antiphonal	Music played by alternating sections of an ensemble

Rudiments/Chords	
1. Staccato	To play short and sharp 
2. Legato	To play smoothly 
3. Trill	Rapid alternation of two adjacent notes 
4. Sforzando piano	An accented note, directly followed by a decrease in volume 
5. Ib: F#m	Tonic in F# first inversion (A C# F#)
6. Ic: A	Tonic in A second inversion (E A C# E)
7. V7d: F#m	Dominant 7th in F# third inversion (B C# E# G#)
8. Dominant 7th with a flattened 9th: A	In A (E G# B D F)
9. Diminished 7th: (D#)	D# F# A C
10. Neapolitan 6th	A chord built on the flattened sixth of a scale (A = F)
11 	6|8 Time signature, six quaver beats in a bar

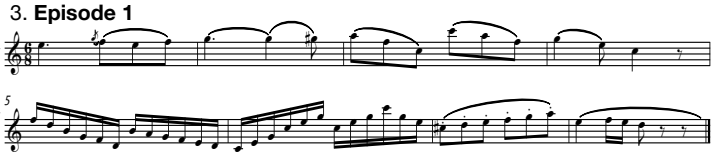
Structure - Rondo Form	
1. A - Rondo Theme	b.1-56 - Tonic: A Major
2. B - First Episode	b. 57-113 - Tonic: A Major (Contrasting section)
3. A - First return of Rondo Theme	b. 114-137 - Tonic: A Major
4. C - Second Episode	b. 138-246 - Relative Minor: F# minor
5. A - Final return of Rondo Theme	b. 247-300 - Tonic: A Major
6. Coda	b.301-353 - Tonic: A Major (Concluding section)

Practical	
1. K622 Key	A Major (3#'s - F, C, G) 

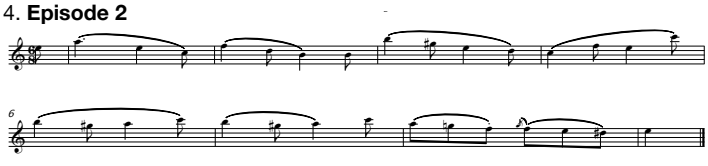
2. **Theme**



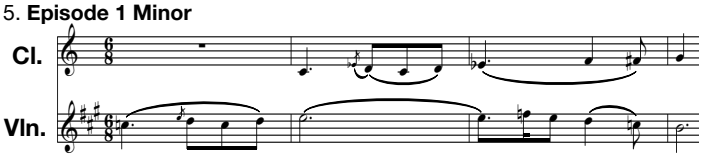
3. **Episode 1**



4. **Episode 2**



5. **Episode 1 Minor**



SPANISH KNOWLEDGE ORGANISER 3

Connectives

y (*e* before i/hi) = and
porque = because
pero = but
sin embargo = however
también = also
o / u = or
si = if
como = as, like
pues = then, later
por ejemplo = for example

cuando = when
donde = where
que = that, which, who
aunque = although
aún si = even if
ya que = since / given that
además = additionally / furthermore
a pesar de = in spite of
por fin = finally
quizás = maybe / perhaps
por lo tanto - therefore

antes de + infinitive = before ___ing
después de + infinitive = after ___ing
así que = therefore / so
aún = even
lo primero (de todo) = first (of all)
mientras = whilst
o… o… = either … or…
ni… ni… = neither… nor…
por eso = therefore (for that reason)
a causa de = because of

Opinions phrases

Pienso que - I think that
Siento que - I feel that
Creo que - I believe that
Me parece que - It seems to me that
En mi opinión - In my opinion
Según yo - according to me
A mi modo de ver - In my opinion
Me gusta(n) – I like
No me gusta(n) – I don't like
Me encanta(n) – I love
Odio – I hate
Me interesa(n) – I'm interested in
Considero que – I consider/ think that
Me gustaría – I would like
Prefiero - I prefer
Sé que – I know that

Questions

¿Quién?	Who?
¿Qué?	What?
¿Dónde?	Where?
¿Por qué?	Why?
¿Cuándo?	When?
¿Cómo?	How?
¿Cuánto/a?	How much?
¿Cuántos/as?	How many?
¿Cuál?	Which?
¿Quiénes?	Who?
¿Cuáles?	Which (ones)?
¿A quién?	To whom?
¿De quién?	From whom?
¿Con quién?	With whom?
¿A dónde?	To where?
¿De dónde?	From where?

Exclamations

1. *¡Qué lástima!* What a shame!
2. *¡Qué problema!* What a problem!
3. *¡Qué vista!* What a view!
4. *¡Qué bonita!* How cute!
5. *¡Qué difícil!* How difficult!
6. *¡Qué aburrido!* How tedious / boring!
7. *¡Qué raro!* How odd!
   ¡Qué extraño! How strange!
8. *¡Qué interesante!* How interesting!

Comparisons

1. *mejor que …*	better than…
2. *peor que..*	worse than..
3. *mayor que…*	older than…
4. *menor que…*	younger than…
5. *el/la mejor…*	the best
6. *el/la peor…*	the worst
7. *más…*	more…
8. *menos…*	less…
9. *más … que*	more … than
10. *menos … que*	less … than
11. *tan … como…*	as … as …
12. *tanto … como…*	as much/many… as

Quantifiers

algunos/as de = some
bastante/s = enough / quite
mucho/a/os/as = a lot
demasiado/a/os/as = too
un poco/a = a little
un par de = a pair of
la mayoría de = most
la mitad de = half of
el resto de = the rest of

Negatives

no…nada = nothing
no…nadie = nobody
ningún/o/a/os/as = no/none
no..nunca = never
no…jamás = never, ever
no…tampoco = neither

Key Verbs

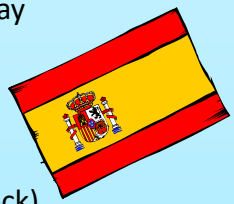
dar – to give
deber – to have to
estar – to be
hacer – to do
hacerse- to become
hay – there is/are
ir – to go
ser – to be
poder – to be able
querer – to want
tener – to have
soler – to usually
jugar = to play
ver – to see
comer – to eat
escuchar – to listen
vivir – to live
salir – to go out
hablar – to speak
poner – to put
comprar – to buy
volver - to return

SPANISH Y11 Knowledge Organiser 3

Time phrases

en el pasado = in the past
el año pasado = last year
el mes pasado = last month
el fin de semana pasado = last weekend
ayer = yesterday
hace ___ años = ___ years ago
hace ___ meses = ___ months ago

este año = this year
este fin de semana = this weekend
este mes = this month
hoy = today
por la mañana = in the morning
por la tarde = in the afternoon
por la noche = at night
una vez por semana = once a week
dos veces por semana = twice a week
todos los días = every day
luego = then
desde hace = since
siempre = always
nunca = never
a (las ocho) = at (8 o'clock)

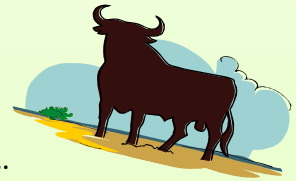


en el futuro = in the future
el año que viene – next year
el mes que viene – next month
mañana = tomorrow
el verano que viene = next summer
el invierno que viene = next winter

Past Tense Cheat Sheet

Fui = I went *Fuimos* = we went

Era / no era…= It was / it wasn't …
Tenía … = It had …
Había … = There were…



Fui a = I went to
Viajé en … = I travelled by…
El vuelo duró… = The flight lasted …
Me alojé en / Me quedé en = I stayed in
Pasé una semana = I stayed a week
Vi lugares de interés = I visited places of interest
Conocí a mucho gente = I met lots of people
Fui de excursión = I went on a trip.

Lo pasé (muy) bien = It was (very) good
Lo pasé fenomenal = It was wonderful
Lo pasé guay = It was great
Lo pasé mal = It was rubbish
Lo pasé fatal= It was horrible
*Lo mejor era q*ue … = The best thing was that…
Lo peor era que … = The worst thing was that…

Future Tense Cheat Sheet

Voy a ir…. = I am going to go…
Vamos a ir … = We are going to go…

Seré = I will be
Iré = I will go
Tendré = I will have
haré = I will do
jugaré = I will play
viajaré = I will travel

Va a ser …= It is going to be...
(no) será = It will (not) be
Tendrá = It will have
Empezaré = I will begin
Comeré = I will eat
Intentaré = I will try

Vamos a ver = we are going to watch
Voy a salir con… = I am going to go out with…
Voy a disfutar de unas vistas espléndidas = I am going to enjoy some splendid views.
Voy a conocer a mucho gente = I'm going to meet lots of people
Va a ser una tragedia = it's going to be a tragedy
Voy a ir de excursión = i am going to go on a trip

Imperfect tense (I used to…)

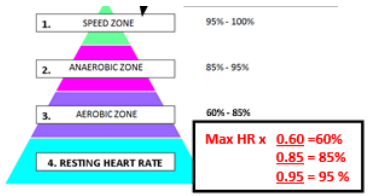
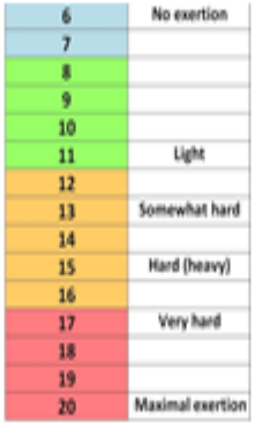
vivía = I used to live
Comía = I used to eat
tenía = I used to have
estudiaba = I used to study
bebía = I used to drink
trabajaba = I used to work

The conditional Tense

me gustaría = I would like
haría = I would do
podría = I could
comería = I would eat
podríamos = we could
bebería = I would drink
compraría = I would buy
hablaría = I would talk

The perfect tense

he decidido = I have decided
hemos decidido = we've decided
he visitado = I have visited
hemos visitado = we've visited
he cambiado = I have changed
hemos cambiado = we've changed

	Week 1	Week 2	Week 3	Week 4	Week 5
BTEC SPORT UNIT 1	**Components of Fitness Learning aim A** **Physical Fitness** 1. Body Composition 2. Aerobic Endurance 3. Strength (Muscular) 4. Speed 5. Flexibility 6. Muscular Endurance **Skill - related Fitness** 1. Co-ordination 2. Reaction time 3. Agility 4. Balance 5. Power Can you link these components to different sports?	**Exercise Intensity Learning aim A** 220-Age=Max HR Training Pyramid  **BORG Scale – Rating of Perceived Exertion (RPE)**  RPE x 10 = Heart rate bpm E.g Level 13 x 10 =130bpm	**Principles of Training Learning aim A** **FITT Principle** Frequency – How often do you train? (How many times a week) Intensity – How hard do you train? (Heart rate/pyramid, BPM, BORG scale RPE) Time – How long you train for? (min. 30mins) Type – What type of training method (e.g. weight, circuit, interval…?) **SPARRV Principle** Specificity – training specific to the individual needs of athlete (Sport, Position, Component of fitness, Age, Gender) Progressive Overload – Make training gradually harder so body gradually improves and adapts (increase *FREQUENCY/INTENSITY/TIME)* Adaptation – Body adapts in response to training (gets stronger because of strength training etc.) Rest and Recovery –Allows adaptation to take place and to avoid injuries due to fatigue/tiredness (have rest days) Reversibility – Body will reverse back if training is stopped for a prolonged time (illness, injury, and motivation) Variation – Training must be varied to avoid boredom (use different *TYPEs* of training methods)	MID CYCLE ASSESSMENT OF LEARNING AIM A List 3 areas you need to improve on from Learning aim A 1 2 3 **Learning aim B** **Warm up** - Pulse raiser, stretches, joint mobilisation **Cool down** – Pulse lowering, Static stretches, Developmental stretches (PNF)	**Flexibility training** **1. Static Stretching – Active (you), Passive (someone/thing else)** **2. Ballistic Stretching – bouncing, actions** **3. PNF Stretching – stretch, hold, tension, stretch further** **Strength, muscular endurance and power training** **1. Free weights – Sets, reps, barbell, dumbbell** **2. Circuit Training – stations** **3. Plyometric – bouncing, throwing, jumping**

	Week 6	Week 7	Week 8	Week 9	Week 10
BTEC SPORT UNIT 1	**Aerobic Endurance Training** **1. Continuous training – non-stop 30 mins** **2. Fartlek Training – 'Speed play', slow, medium, fast/different terrain** **3. Interval Training – work, rest, work, rest** **Speed Training** **1. Hollow Sprint - broken up by 'hollow' lower level work** **2. Acceleration Sprints - jogging to striding and finally to sprinting at maximum speed.** **3. Interval Training -– work, rest, work, rest**	MID CYCLE ASSESSMENT OF LEARNING AIM A List 3 areas you need to improve on from Learning aim A 1 2 3 **Learning aim C** Why are tests important? Pre-test procedures: • Consent • Calibration of equipment Accurate measurements and recording results Reliability, validity and practicality	**Muscular Endurance** **Sit up and press up tests** Count how many sit ups or press-ups completed in 1 minute ✓ Quick and easy ✓ Little equipment ✓ Large groups at once ➢ Arguments of correct technique can affect results **Power** **Vertical Jump test** Stand side on to wall reach up and mark/set the measure. Standing jump as high as possible touching wall. Measure between two marks/measures ✓ Quick and easy ➢ Technique can affect result as need to jump and mark wall **Strength** **Grip dynamometer** 3 attempts, squeeze grip dynamometer measure result in Kg or KgW. ✓ Simple and easy test ✓ Lots of normative data ➢ Must be adjusted for hand size which may affect results **Flexibility** **Sit and Reach test** Both feet against the **sit and reach box**, reach forward and measure result in centimetres ✓ Well known test ✓ Quick and easy to perform ➢ measures lower back & hamstrings only ➢ length of arms and legs affect results	**Agility** **Illinois Agility test** Cones set up as in the image, lie face down on the floor at the start, measure time to complete course in seconds ✓ Cheap and easy to conduct ➢ Human error with timing can affect results ➢ Weather or surface conditions can affect results **Speed** **35m sprint test** Sprint from one line/cone to another in a straight line over 35m. Record time and compare to normative data ✓ Little equipment so cheap to run ➢ Human error when timing can affect results **Aerobic Endurance** **Multi Stage Fitness Test (MST/Bleep test)** Cones/Lines **20m apart**, run in-between to the sound of a beep. **Gradually gets faster**. Longer you can keep up the higher the level ✓ Can test a large group at once ✓ Tests to maximum effort ➢ Practice can affect score ➢ If outside environment may affect ➢ Scores can be subjective **Forestry Step Test** Step/ bench- 33cm for females and 40cm for males. Step up and down for 5 minutes to a metronome. **(90bpm/22.5steps a min)**. Record pulse and compare to table ✓ Low cost ✓ Can be performed inside or outside ✓ Can test on your own ➢ People may struggle to keep with the stepping pace on metronome	**Body Composition** **Body Mass Index (BMI)** $BMI = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$ ➢ Easy to carry out ➢ Results can be misleading as muscles weighs more than fat **Bioelectrical Impedance Analysis (BIA)** BIA = electricity passed through body from **WRIST** to **ANKLE.** Measures the resistance from muscle and fat ✓ Quick and gives instant results ✓ Can be repeated over time with no bad effects ➢ Needs expensive equipment **Sum of Skinfolds** Use **CALLIPERS** to measure skin on the **BICEP, TRICEP, SHOULDER BLADE** and **HIP.** Add measurements together and use to the **JACKSON-POLLOCK** nomogram (4 lines) • Provides accurate percentages of body fat ➢ Needs specialist equipment ➢ Problems with people revealing bare skin