Year 10 Knowledge Organiser

Autumn 2026

Name: _____

Tutor Group: _____



ORMISTON DENES ACADEMY

[OAT] Ormiston Academies Trust

ACHIEVING MORE TOGETHER

Your Knowledge Organiser

What are Knowledge Organisers?

A Knowledge Organiser is a set of key facts or information that students need to be able to know and recall in order to master a unit or topic. In order to produce our Knowledge Organisers, our departments have effectively extracted from their curriculum content the key vocabulary, facts and information that it would help students to commit to long-term memory.

Why are we using Knowledge Organisers?

All of us, throughout our lives, will benefit from understanding how best we learn – and what strategies for learning we can employ in order to commit information to long-term memory. At school, we talk a lot about the way that knowledge is accumulated over time– and about the importance of over-learning and consolidation. Knowledge Organisers are designed to provide students with opportunities to over-learn and consolidate recently learned information. They encourage use of active and multi-sensory revision practices, repetition, and spaced retrieval. We believe that Knowledge Organisers are important because they are designed to teach students the metacognitive study skills that they will require throughout their adult learning lives; effectively, what we are using Knowledge Organisers to introduce is a five-year programme of revision aimed at developing the skills required for effective revision and developing the knowledge they will need to be effective adults and further learners.

What is Metacognition?

Metacognition is the awareness and understanding of one's own thought processes. When we talk about developing metacognitive skills in students, we're talking about students developing an understanding of how they learn best. For example, a student who wishes to commit key quotations from a text to long term memory may decide to make flashcards. When making those flashcards, a student may make all sorts of decisions such as 'using the colour yellow will help me to remember that…' The decision regarding which multi-sensory strategy to employ (flashcards) and the decisions that are made during active employment of the strategy…both are examples of metacognition.

How to Use Your Knowledge Organiser:

CHUNK IT	RE-LEARN IT	WRITE IT	SPEAK IT
Split the knowledge organiser into manageable chunks. Choose a chunk at a time to memorise. Start with the most important or the most difficult.	Re-read your notes on the chosen topic. Do some wider research on the internet until you understand it.	Write a detailed description or an explanation about everything that you know about this topic. Try to do this without your notes. Write key facts you need to memorise over and over until you have memorised them.	Give a verbal explanation about this topic as if you were teaching it. Repeat the facts you need to remember 20 times. Record key facts from the knowledge organiser into your phone.

How to Use Your Knowledge Organiser:

TRANSFORM IT	REDUCE IT	SORT IT	LINK IT
Transform key facts into a series of images. Transform what you have learned into a diagram. Transform your learning into a poem or a story.	Reduce what you have learned to five key bullet points or prompts. Reduce the three most important facts linked to a topic into 10 words.	Rank the most important pieces of information from your knowledge organiser. Categorise your key facts into groups, you choose the group headings.	Find three links between this topic and others you have studied. Link the key points together.

English

Power and Conflict Poetry Anthology

Methods

Language

Metaphor
Extended metaphor
Emotive language
Triplets
Tone
Alliteration
Anaphora
Personification
Pathetic fallacy
Hyperbole
Oxymoron / contrast/ juxtaposition
Onomatopoeia
Rhetorical question
Repetition
Simile
Sensory description
Sibilance
Semantic field

Structure

Enjambment
Volta
Caesura
Perspective
Cyclical / linear
Rhyme
Rhythm

How to learn your quotes:

1. Cover, write, check
2. Quizzing
3. Fill in the blanks
4. Flashcards: Quote on one side, analysis on the other

How to explode your quotes:

1. What is the quote about?
2. What is the implied meaning?
3. Zoom in on key words. What is the connotation of these words?
4. Identify methods and their impact.
5. Look for alternative meanings. What else could your quote / word/ method suggest?
6. How does your quote link to context?
7. What is the author's intention? Criticise/ teach/ warn/ reflect/ expose/ praise

Poetic forms / genres

Dramatic monologue: a speaker addressing a silent listener
Persona poem: the poet takes on a character's voice
Sonnet: 14 lines, regular rhyme and rhythm, volta
Free verse: No regular rhyme or rhythm
Blank verse: regular rhythm but not rhyme
Ballad: narrative poem with a regular, song-like rhythm
Autobiographical: based on the poet's life
Bildungsroman: a narrative about the journey from childhood to adulthood

Themes

- Power
- Conflict
- War
- Nature
- Human power
- Psychological conflict
- Memory and loss
- Oppression and inequality
- Identity
- Relationships
- Fear
- Suffering

Colour code the poems on the next page. Which themes can you link them to?

Checklist

Comparison
Quote Poem 1
Implied meaning
Zooms
Methods
Context
Author's intent
Quote Poem 2
Zooms
Methods
Context
Author's intent

Challenge:

1. Integrate your comparisons
2. Look for alternative interpretations

Ozymandias "Two vast and trunkless legs of stone stand in the desert" "Wrinkled lip, and sneer of cold command" "Stamped on these lifeless things" "The hand that mocked them and the heart that fed" "Look on my works, ye Mighty, and despair!" "Nothing beside remains. Round the decay"	**London** "Marks of weakness, marks of woe" "In every cry of every man, in every infant's cry of fear" "The mind-forged manacles I hear" "Runs in blood down palace walls" "Blights with plague the marriage hearse"	**The Prelude** "One summer evening (led by her" I found a little boat tied to a willow tree" "Small circles glittering idly in the moon, until they melted all into one track of sparkling light" "Growing still in stature the grim shape towered up between me and the stars" "O'er my thoughts there hung a darkness, call it solitude or blank desertion"	**My Last Duchess** "That's my last duchess painted on the wall, looking as if she were alive" "'Twas not her husband's presence only, called that spot of joy into the duchess' cheek" "As if she ranked my gift of a nine hundred-years-old name with anybody's gift" "I gave commands; then all smiles stopped together" "Notice Neptune, though, taming a sea-horse"	**The Charge of the Light Brigade** "Cannon to the right of them, cannon to the left of them, cannon in front of them" "Into the jaws of death, into the mouth of Hell" "Theirs not to make reply, theirs not to reason why, theirs but to do and die" "Honour the Light Brigade, noble six hundred!"
Exposure "Our brains ache, in the merciless iced east winds that knive us" "Dawn massing in the east her melancholy army attacks once more in ranks upon shivering ranks of grey" "Sudden successive flights of bullets streak the silence" "All their eyes are ice, but nothing happens"	**Storm on the Island** "We are prepared" "Nor are there trees which might prove company when it blows full blast" "Exploding comfortably down on the cliffs ... spits like a tamed cat turned savage" "It is a huge nothing that we fear"	**Bayonet Charge** "Suddenly, he awoke, and was running – raw" "In what cold clockwork of the stars and nations was he the hand pointing that second?" "Threw up a yellow hare ... its mouth wide open silent, its eyes standing out" "King, honour, human dignity etcetera, dropped like luxuries in a yelling alarm"	**Remains** "Probably armed, possibly not" "I see every round as it rips through his life, I see broad daylight on the other side" "and the drink and the drugs won't flush him out – he's here in my head when I close my eyes" "His bloody life in my bloody hands"	**Poppies** "Crimped petals, spasms of paper red" "the world overflowing like a treasure chest" "After you'd gone I went into your bedroom, released a song bird from its cage" "The dove pulled freely against the sky" "I listened, hoping to hear your playground voice catching on the wind"
War Photographer "In his dark room he is finally alone with spools of suffering set out in ordered rows" "Running children in a nightmare heat" "a hundred agonies in black and white" "he earns his living and they do not care"	**Tissue** "Paper that lets the light shine through" "pages smoothed and stroked and turned transparent with attention" "Never wish to build again with brick or block, but let the daylight break through" "turned into your skin"	**The Emigree** "It may be at war, it may be sick with tyrants" "I am branded by an impression of sunlight" "My city comes to me ... I comb its hair and love its shining eyes" "They accuse me of being dark in their free city"	**Checking Out Me History** "Dem tell me/ Dem tell me/ wha dem want to tell me" "Blind me to me own identity" "Toussaint de thorn to de French, Toussaint de beacon" "But now I checking out me own history, I carving out me identity"	**Kamikaze** "A shaven head full of incantations and enough fuel for a one-way journey into history" "like a huge flag waved first one way then the other in a figure of eight, the dark shoals of fishes flashing silver" "my mother never spoke again in his presence, nor did she meet his eyes and the neighbours too" "he must have wondered which had been the better way to die"

Power and Conflict Poetry: Knowledge Organiser

Shelley's ***Ozymandias*** In the opening lines of Ozymandias, Shelley uses the decaying statue as a metaphor to explore the fragility of human accomplishments and how they are gradually consumed by the natural world.

Browning's ***My Last Duchess*** In the opening of My Last Duchess, an exploration of the violent objectification of women, Browning traces the speaker's desire to exert full physical and psychological control over his dead wife through her portrait.

Blake's ***London*** Blake opens the poem with the speaker mourning the loss of his city: the wonder and wild beauty of London is shown to be lost to rationalism, modernity and work.

Rumen's ***The Emigrée*** In the opening lines of The Emigrée Rumens contrasts the idealised and nostalgic memories of the speaker's home with the reality of the place now "sick with tyrants".

Agard's ***Checking Out Me History*** In the opening lines of Checking Out Me History Agard reveals the destructive nature of a British school system that has silenced the voices of its previous colonial subjects.

Wordsworth' s ***Extract from The Prelude*** As The Prelude opens, Wordsworth presents nature as a submissive, and even sensual pleasure: the speaker seems to exude confidence and control.

Heaney' s ***Storm on The Island*** Unlike the Romantic poets, Heaney describes the landscape as bleak and inhospitable, something to be endured in order to survive

Dharker's ***Tissue*** In the opening stanzas Dharker uses the metaphor of "tissue" to explore the connections that paper creates between individual nostalgia, personal relationships and wider human history.

Tennyson's ***Charge of The Light Brigade*** Tennyson presents the Battle of Balaclava in Charge of The Light Brigade as a solemn and unified journey which is both dramatic and exciting.

Owen's ***Exposure*** Owen opens the poem by establishing that, despite the rapid and terrifying mechanisation of warfare during WWI, it is the elements which cause soldiers the most suffering.

Hughes's ***Bayonet Charge*** Hughes opens the poem in medias res, disorienting the reader by throwing them straight into the action and forcing them to share the soldier's experience.

Armitage's ***Remains*** Armitage starts the poem almost mid-conversation: it is as if the narrator is confiding in a third party, a psychiatrist, family member or the reader.

Garland's ***Kamikaze*** Garland opens the poem with the speaker imagining a woman's father preparing to "embark" on a kamikaze mission during the final, desperate days of WWII.

Weir's ***Poppies*** Weir opens Poppies by revealing the conflict between nostalgia, parental pride and modern perceptions of remembrance with subtle yet violent imagery of war.

Duffy's ***War Photographer*** Duffy opens War Photographer in a moment of personal reflection: she explores the dual role of the photographer's work, to rearrange and give order to the chaos of war, whilst also to change and heal the world like a priest.

English Language Paper 1: Explorations in Reading and Creative Writing Knowledge Organiser

1 hour 45 minutes

The absolute basics:



Read the text – 5 mins

Section A
Q1 – List 4 things (5 mins)
Q2 – How does the writer use language to… (10 mins)
Q3 – How does the writer structure the text to… (10 mins)
Q4: [statement] To what extent do you agree? (30 mins)

Section B
Q5: Writing to describe or narrate (45 mins inc. planning time)

READ

Start of the exam (5 mins)

1. **Read the blurb** given for the text. Highlight key words which given you a clue about what you will be reading e.g. character, setting, time.

2. **Read the passage carefully.** Take time to make sure you understand it and text mark (highlight) as you go.

Look out for:

1. Key quotes about character or setting
2. Pivotal moments
3. Sentences which build a particular tone or mood.

Section A: **Question 1 (5 mins, 4 marks)**

Question stem: *Write down four things you learn…*

Planning

1. Read the question and highlight the key words, including the lines it asks you to focus on.

2. Draw a box around the lines you need to focus on in the insert.

Writing
1. Write in full sentences.
2. One point per line.
3. Keep it simple i.e. explicit inferences

Question 2 (10 mins, 8 marks)

Question stem: How does the writer use language to…

Planning

1. Read the question and highlight the key words to ensure you understand what the focus of your answer will be.

2. Re-read the section of text the question asks you to focus on.

3. Highlight key quotations which will help you answer the focus of the question. Consider the use of different language devices.

Basic things to look out for: 5 senses, colour, adjectives and verbs.

Grade 7+: extended metaphors, semantic fields, assonance.

Writing

1. You are writing 3 clear PEAs to answer the question.

2. Each should focus on a different language device used.

Grade 7+ = Develop PEAs into PEAEAs to show how devices are used across the extract and an overall effect is created.

3. Your 'Points' should use the wording of the question.

Useful sentence starters
Possible intro if time:

Throughout the extract the writer creates a … tone/atmosphere.

Point:

The writer has used a [language device] to suggest/imply/create…

Evidence:

For instance, '…'

ANALYSE

Analysis:

The use of … makes it sound like…
The word/phrase/subject term '…' creates an impression of…
We might realise/imagine/feel…

Question 3 (10 mins, 8 marks)

Question stem: How has the writer structured the text to interest you as a reader?

structure

Planning

1. Read the question and highlight the key words. This question is about *how the text is put together and organised*, rather than the language devices used.

2. At the top of the answer booklet write: **STOPSEC**

Setting
Time
Opening
Perspective
Shift in focus
Ending
Character



3. Skim through the whole source again. Highlight and label where you see different STOPSEC features- particularly focus on how the opening and ending are effective.

Top tip: for a really clear response, think about what the writer focuses your attention on at the beginning, what they focus you on at the end-and whether this is similar or different. Then ask WHY?

TOP TIP

Writing

1. Aim for 3 PEA paragraphs: *beginning contrasted to the end-to give a general overview of the text first of all, then consider how your focus shifts in the middle of the extract and why* –your analysis isn't focusing on the use of words and phrases, but on the atmosphere/tone created by the different structural (STOPSEC) features used at different points. A final PEA could be written about another interesting structural feature: repetition, juxtaposition, tone, sentences etc.

Useful sentence starters:
Possible intro if time:

Throughout the extract the reader carefully structures the text to interest the reader. They particularly consider [insert STOPSEC feature/s you will focus on.]
Point:
The writer opens the text by introducing/using [insert STOPSEC feature] in order to suggest/create…
This links to/is contrasted with the ending of the text, where there is a shift in focus to…
Evidence:
For instance, this is seen when '…'
Analysis:
The use of … creates a sense of…
It tells us…
We are shown that…
The … develops…
This interests the reader because…

Notice: The analysis is NOT on words but on the effect of the structure and the impressions it creates for us.

Question 4 (30 mins, 20 marks)

Question stem: '[statement about the text]' To what extent do you agree?

Planning

1. Read the question and highlight the key words, including the section of the text if specified. Think carefully about how far you agree with the statement.

Top Tip: Usually it is best to AGREE with the statement. But consider how far you agree. Is there evidence to argue against this opinion? Create a debate in your answer.

TOP TIP

2. Draw a box around the section of the text if specified.

3. Read through and highlight words/phrases/language devices you will use to argue FOR, and maybe against the statement.

Writing

1. Aim for 3 PEAEALs in 20 mins. Pick out key words in each and explore their effect.

Useful sentence starters (see previous questions too – you can reuse these if appropriate!):

To some extent I agree with…
I certainly agree that…
However, it could also be argued that…
Overall I agree that…

PROOF READ YOUR WORK!

(Allow 5 mins for this)

-Spelling inc. homophones e.g. to/too/two or there/their/they're

-Improve any dull words to make them more exciting!

Section B: **Question 5 (45 mins, 40 marks)**

Question focus: Writing to narrate (story) or describe.

Planning (THIS IS REALLY IMPORTANT!)

1. Decide which task you would like to do (narrate or describe). There might not be a choice! Reminder of the structure for each below:

Describe		Narrate
Panoramic Zoom Zoom Zoom Panoramic	Consider STOPSEC to structure your writing in both tasks!	Rule of 1: 1 setting, 1 character, 1 event, 1 hour Hook → Character intro → Development → Turning point → Resolution

2. Plan using the structures above. You should also consider:

-What good vocab could you use from the extract you have just read?

Writing

Vary your sentence openers with verbs, adverbs, prepositions, adjectives.

Use a semi-colon (instead of because)

Remember these things →

Use plenty of description, even in a narrative.

Vary the length of your sentences (inc, at least 1 holophrastic phrase) and your paragraphs.

Commas after subordinate clauses

Variety of language devices

Year 10 Physics

Students should be able to select and apply the following equations from the Physics equation sheet.

Equations required for Higher Tier papers only are indicated by HT in the left hand column.

Equation number	Word equation	Symbol equation
1 HT	pressure due to a column of liquid = height of column × density of liquid × gravitational field strength (g)	$p = h \rho g$
2	(final velocity)^2 – (initial velocity)^2 = 2 × acceleration × distance	$v^2 - u^2 = 2 a s$
3 HT	force = $\frac{\text{change in momentum}}{\text{time taken}}$	$F = \frac{m \Delta v}{\Delta t}$
4	elastic potential energy = 0.5 × spring constant × (extension)^2	$E_e = \frac{1}{2} k e^2$
5	change in thermal energy = mass × specific heat capacity × temperature change	$\Delta E = m c \Delta \theta$
6	period = $\frac{1}{\text{frequency}}$	
7	magnification = $\frac{\text{image height}}{\text{object height}}$	
8 HT	force on a conductor (at right angles to a magnetic field) carrying a current = magnetic flux density × current × length	$F = B I l$

The Periodic Table of Elements

1	2											3	4	5	6	7	0
							1 **H** hydrogen 1										4 **He** helium 2
7 **Li** lithium 3	9 **Be** beryllium 4											11 **B** boron 5	12 **C** carbon 6	14 **N** nitrogen 7	16 **O** oxygen 8	19 **F** fluorine 9	20 **Ne** neon 10
23 **Na** sodium 11	24 **Mg** magnesium 12											27 **Al** aluminium 13	28 **Si** silicon 14	31 **P** phosphorus 15	32 **S** sulfur 16	35.5 **Cl** chlorine 17	40 **Ar** argon 18
39 **K** potassium 19	40 **Ca** calcium 20	45 **Sc** scandium 21	48 **Ti** titanium 22	51 **V** vanadium 23	52 **Cr** chromium 24	55 **Mn** manganese 25	56 **Fe** iron 26	59 **Co** cobalt 27	59 **Ni** nickel 28	63.5 **Cu** copper 29	65 **Zn** zinc 30	70 **Ga** gallium 31	73 **Ge** germanium 32	75 **As** arsenic 33	79 **Se** selenium 34	80 **Br** bromine 35	84 **Kr** krypton 36
85 **Rb** rubidium 37	88 **Sr** strontium 38	89 **Y** yttrium 39	91 **Zr** zirconium 40	93 **Nb** niobium 41	96 **Mo** molybdenum 42	[98] **Tc** technetium 43	101 **Ru** ruthenium 44	103 **Rh** rhodium 45	106 **Pd** palladium 46	108 **Ag** silver 47	112 **Cd** cadmium 48	115 **In** indium 49	119 **Sn** tin 50	122 **Sb** antimony 51	128 **Te** tellurium 52	127 **I** iodine 53	131 **Xe** xenon 54
133 **Cs** caesium 55	137 **Ba** barium 56	139 **La*** lanthanum 57	178 **Hf** hafnium 72	181 **Ta** tantalum 73	184 **W** tungsten 74	186 **Re** rhenium 75	190 **Os** osmium 76	192 **Ir** iridium 77	195 **Pt** platinum 78	197 **Au** gold 79	201 **Hg** mercury 80	204 **Tl** thallium 81	207 **Pb** lead 82	209 **Bi** bismuth 83	[209] **Po** polonium 84	[210] **At** astatine 85	[222] **Rn** radon 86
[223] **Fr** francium 87	[226] **Ra** radium 88	[227] **Ac*** actinium 89	[261] **Rf** rutherfordium 104	[262] **Db** dubnium 105	[266] **Sg** seaborgium 106	[264] **Bh** bohrium 107	[277] **Hs** hassium 108	[268] **Mt** meitnerium 109	[271] **Ds** darmstadtium 110	[272] **Rg** roentgenium 111	[285] **Cn** copernicium 112	[286] **Nh** nihonium 113	[289] **Fl** flerovium 114	[289] **Mc** moscovium 115	[293] **Lv** livermorium 116	[294] **Ts** tennessine 117	[294] **Og** oganesson 118

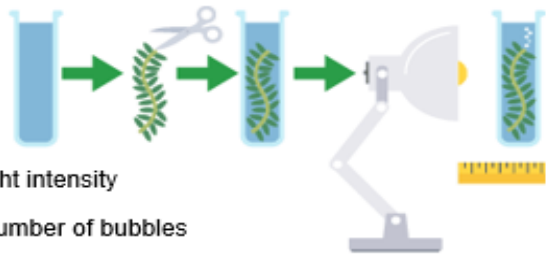
Key

relative atomic mass
atomic symbol
name
atomic (proton) number

Year 10 Biology

Keywords: respiration photosynthesis vaccination communicable non communicable disease antibiotics painkillers placebo clinical trial cancer benign pathogen immune system white blood cell

Required practical : Investigating the effect of light intensity on photosynthesis



IV: Light intensity

DV: Number of bubbles

Control : Temperature, bulb , time , CO_2 concentration

To increase the light intensity, move the lamp towards the light – the rate of photosynthesis can be measured by the number of bubbles released over a given time

The light intensity can be changed by moving the lamp

Communicable Disease – caused by pathogens (diease causing micro organisms)

Pathogen	Example in animals	Example in plants
Viruses	HIV potentially leading to AIDS	Tobacco mosaic virus
Bacteria	Salmonella	Agrobacterium
Fungi	Athlete's foot	Rose black spot
Protists	Malaria	Downy mildew

Communicable disease

Type of disease	Name	Symptoms
Bacterial	Gonorrhoea	STD. yellow/ grteen discharge from penis or vagin a, pain urinating. Treated with antibiotics . Condoms prevent transmission
	Salmonella	Uncooked food and unhygeintic kitchens , uncooked poultry. All poultry are vaccinated against it , cook food throughly
Protist	Malaria	A palsmodium protist is sporead by mosquitos feeding from infected to uninfected person. No vaccination. Avoiding insect bites is the best form of prevention
Virus	TMV	Reduces groth of tobabcco plants , transmitted by farmers. No cure
	HIV/AIDS	Transmitted through body fluids , attacks the immune system until a secondary infection kills you .No cure.
	Measles	Highly infectious diease . Often kills children. Can cause infertility on adults , people are vaccinated against it
Fungal	Atheletes foot	Found between peoples toes, spread in swimmingh pools or infected surfaced. Treated with antifungal medication
	Rose black spot	Causes blackening of leaves and then reduces photosynthesis and growth. Transmitted by direct contact , remove infected plants

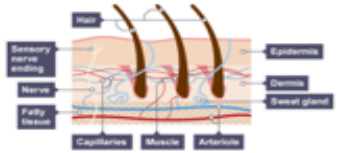
Type	Examples
Direct contact	This can be sexual contact during intercourse or non-sexual contact, like shaking hands.
Water	Dirty water can transmit many diseases, such as the cholera bacterium.
Air	When a person who is infected by the common cold sneezes, they can spray thousands of tiny droplets containing virus particles to infect others.
Unhygienic food preparation	Undercooked or reheated food can cause bacterial diseases like Escherichia coli which is a cause of food poisoning.
Vector	Any organism that can spread a disease is called a vector. Many farmers think tuberculosis in their cattle can be spread by badgers.

Preventing the spread of disease

Method	Example	How it works
Sterilising water	Cholera	Chemicals or UV light kill pathogens in unclean water.
Suitable hygiene - food	Salmonella	Cooking foods thoroughly and preparing them in hygienic conditions kills pathogens.
Suitable hygiene - personal	Athlete's foot	Washing surfaces with disinfectants kills pathogens.Treating existing cases of infection kills pathogens.
Vaccination	Measles	Vaccinations introduce a small or weakened version of a pathogen into your body, and the immune system learns how to defend itself.
Contraception	HIV/AIDs	Using barrier contraception, like condoms, stops the transfer of bodily fluids and sexually transmitted diseases.

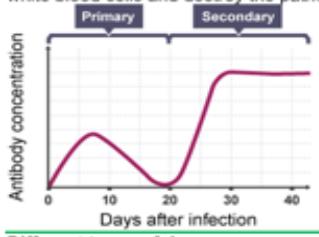
Defence against pathogens

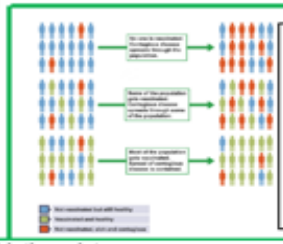
Defence	Works by
Skin	Waterproof physical barrier, forms scabs , antimicrobial enzymes
Nose	Hairs which trap pathogens
Airways	Ciliated cells move mucus (made by goblet cells) which has trapped pathogens , out of the lungs
Stomach	Stomach acid (hydroichloric) kills pathogens in food or water



The skin
The immune system: White blood cells
Phagocytosis , produce antibodies, produce Anti toxins

Devloping drugs – A drug is a substnace which physically or mentally alter the organism
Vaccination : 1. Inject inactive/dead pathogen 2. White blood cells recoignise the pathogenic antigen 3. The body produces antibodies to destroy the pathogen and memory cells
If exposed to the pathogen again the ,me mepory cells quickly produce antibpody producing white blood cells and destroy the pathogen

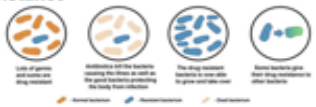




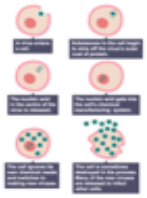
Herd immunity: Enough of the population is immune or vaccinated which reduces the risk of coming onto contact with infection

Different types of drugs
Painkillers : Remove symptoms
Aspirin ibruprofen paracetamol
Antibiotics: Stop or slow the rate of Growth of bacteria, penicillin is an example

Antibiotic resistance



All viruses cause illness



Antibiotic rtesistance has arisen because of
Overuse ,Failing to comlete courses of antibiotics on farms
Ways to redcue antibiotic resistance
Only prescribe antibiotics when needed ,Use specific antibiotics
Specific infectiosn, isolate patients, clean hospitals

Discovering new drugs – safety , effectiveness , dosage
Placebo : fake drug
Preclinical: cells , tissues , animals and computer models
Clinical trial 1: Test on healthy people to see if it is safe
Clinical trial 2: Test on patients to see if it works
Clinical trial 3: Dosage

Non communicable disease – Cannot be spread from another source. Not caused by a pathogen
Cancer : Uncontrolled cell division results in the growth of a tumour. Benign tumours do not spread, malignant can spread . Treated by chemotherapy , radio therapy and surgery
Risk factors
Obesity – Blood sugar is unregulated – leads to type II diabetes
Alcohol – Scar tissue forms in the liver which stops it working – leads to liver cirrhosis
Smoking – damages lungs and increased risk of premature babies – lung cancer

Year 10 Biology

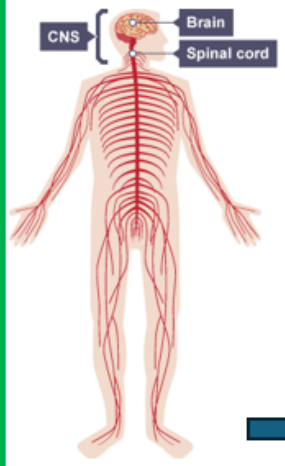
Homeostasis

Maintaining constant internal conditions for optimum enzyme action

- Temperature
- Water
- pH
- Glucose concentration

This is achieved through the **nervous and endocrine (hormonal) systems**

Nervous system



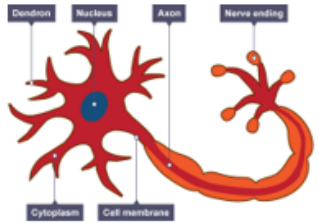
Nerve cells – neurones : carry electrical impulses

Receptor to CNS – **sensory neurone**

Within the CNS – **relay neurones**

CNS to muscle - **motor neurone**

Features of all neurones
Long insulated axon
Tiny branches making connections with other neurones
The cell body contains the nucleus which contains DNA



All control systems include

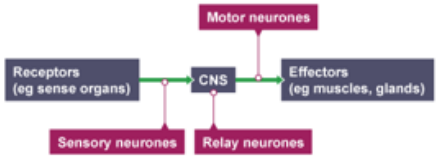
Receptors – detect internal or external stimuli (change in the environment)

Coordination center – brain , spinal cord ort pancreas which receive and process information from around the body

Effectors – Muscles or glands which bring about responses

Receptors to effectors

Stimulus – receptor – CNS- effector – response



Receptors

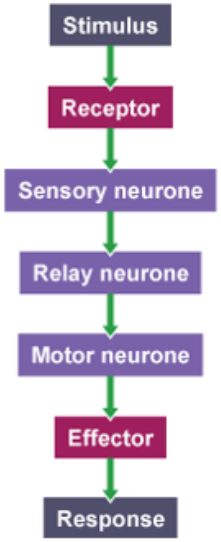
Sense organ	Stimulus
Skin	Touch, temperature and pain
Tongue	Chemicals (in food and drink, for example)
Nose	Chemicals (in the air, for example)
Eye	Light
Ear	Sound and position of head

Reflex

Reflex – Automatic and rapid response to keep the organism, from damage top danger (done not involve conscious "thinking" parts of the brain)

Examples : moving a hand away from a hot object , pancreas producing insulin adrenals producing naline

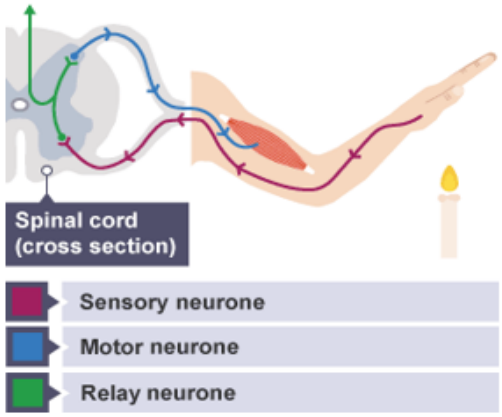
A reflex action



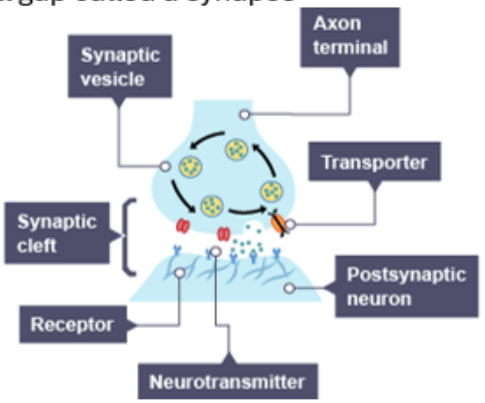
The reflex arc

1. **Receptor in the skin detects a stimulus (the change in temperature).**
2. **Sensory neurone sends electrical impulses to relay neurone, which are located in the spinal cord. They connect sensory neurones to motor neurones.**
3. **Motor neurone sends electrical impulses to an effector.**
4. **Effector produces a response (muscle contracts to move hand away).**

The reflex arc



Synapse: Where 2 neurones meet there is a small gap called a synapse



1. Impulse reases the axon termninal
2. Vesiciles containg neurotransmitter are produced
3. Neurotransmitter is released across the synapse
4. Neurotransmistter diffuses across the synpase
5. Neurotransmistter is detected by the next neurone
6. The neurone produces an electrical impulse

Required practical: The ruler drop test : Investigating human reaction times

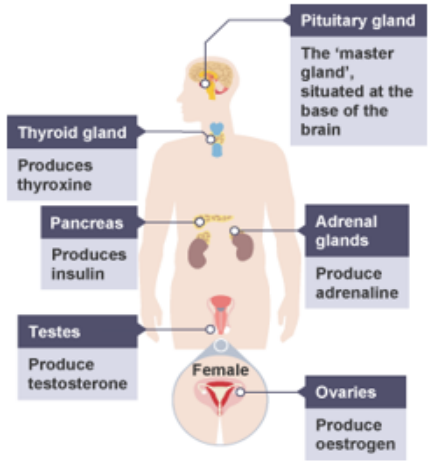
1. Work with a partner.
2. Person A holds out their hand with a gap between their thumb and first finger.
3. Person B holds the ruler with the zero at the top of person A's thumb
4. Person B drops the ruler without telling Person A and they must catch it.
5. The number level with the top of person A's thumb is recorded in a suitable table. Repeat this ten times.
6. Swap places, and record another ten attempts.
7. You can use the conversion table to help convert your ruler measurements into reaction time or just record the catch distance in cm.



Hormonal control (The endocrine system) vs Nervous control

	Nervous system	**Endocrine system**
Type of signal	Electrical (chemical at synapses)	Chemical
Transmission of signal	By nerve cells (neurones)	By the bloodstream
Effectors	Muscles or glands	Target cells in particular tissues
Type of response	Muscle contraction or secretion	Chemical change
Speed of response	Very rapid	Slower
Duration of response	Short (until nerve impulses stop)	Long (until hormone is broken dow

The endocrine system



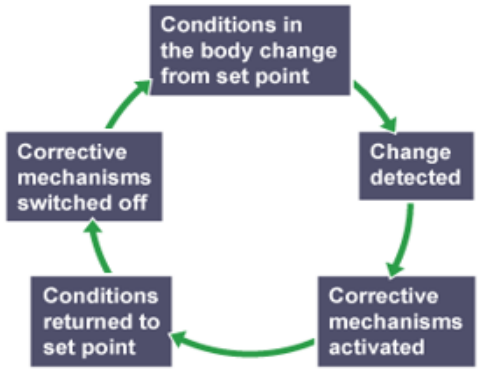
Hormones – chemical messengers, made by glands, carried by the blood to target organs

Gland	Produces	Effect
Pituitary	FSH , LH	Control of menstrual cycle in females
Thyroid	Throxine	Controls metabolic rate
Pancreas	Insulin and glucagon	Insluin - lowers blood glucose (storing as glycogen) Glucagon – releases glucose from glycogen
Adrenal	Adrenaline	Fight or flight reponse
Testes	Testosterone	Secondary male sexual characteristics
Ovaries	Oestrogen	Secondary female sexual characteristics

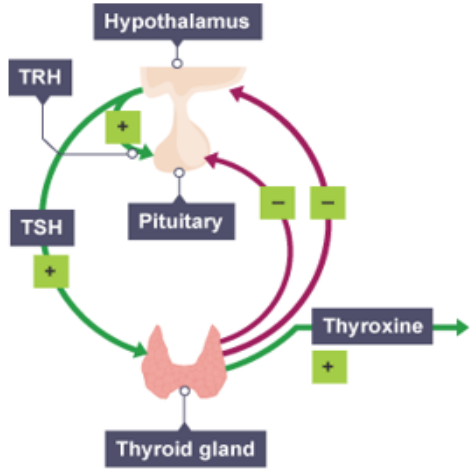
Target organs : have specific shaped receptors for the hormone . Only the target oprgan has these receptors so the hormone only binds with the target organ resulting in a response

HT only – Negative feedback

A mechanism to lower raised levels of something, and to raise reduced levels of something.



HT: Throid and negative feedback



1. **Low thyroxine** levels in the bloodstream stimulate the hypothalamus to release TRH and this causes the pituitary to release TSH so the thyroid releases more thyroxine. So blood levels return to normal.
2. **Normal thyroxine** levels in the bloodstream inhibit TRH release from the hypothalamus and this inhibits the release of TSH from the pituitary, so normal blood levels are maintained.

Adrenaline :

Produced by the adrenal glands
Prouced during times of stress or fear
Targets vital organs boosting heart rate and breathing rate to gain more oxygen

When adrenaline is released into the bloodstream it creates multiple effects:

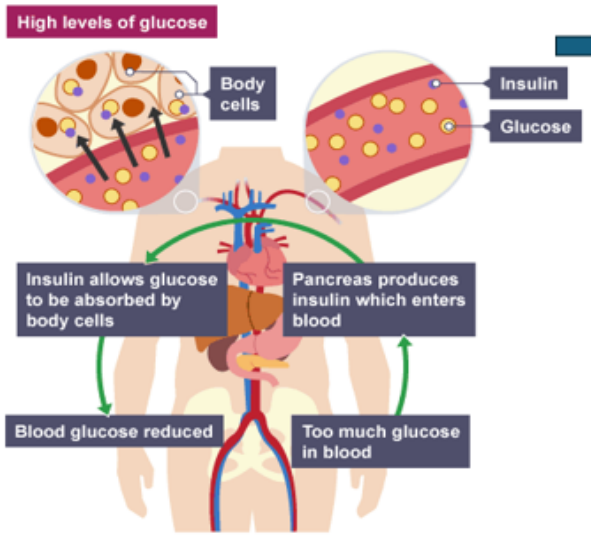
- increases breathing rate, heart rate, and conversion of glycogen to glucose so more energy is released in the muscles
- it diverts blood away from areas, such as the digestive system, towards the muscles

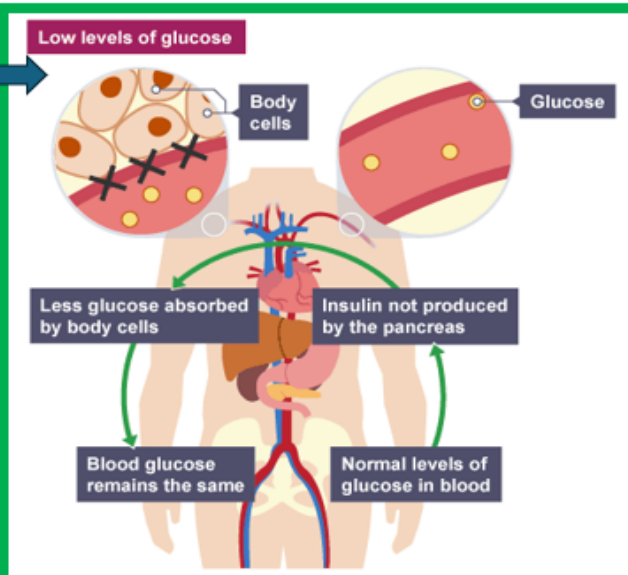
Control of glucose

	Low glucose	High glucose
Effect on pancreas	Insulin not secreted into blood	Insulin secreted into blood
Effect on liver	Glucose not stored as glycogen	Glucose stored as glycogen
Effect on blood glucose	Increases	Decreases

Glucagon

Low blood glucose – glucagon is propduced – glycogen broken down into glucose





Diabetes:

Type I : Pancreas does not produce insulin **, treated with insulin injections**

Type II: The body does not respond to insulin **, controlled by diet and exercise**

Obesity and type II diabetes: 80% of type II diabetes is thought to be as a result of obesity

Obesity is a **risk factor** for developing type II diabetes

Hormones and puberty

Boys only	Boys & girls	Girls only
Voice breaks	Pubic hair grows	Voice deepens gradually
Hair grows on face and body	Underarm hair grows	Hips get wider
Body becomes more muscular	Sexual organs grow and develop	Breasts develop
Testes start to produce sperm cells		Ovaries start to release egg cells - menstruation starts

The menstrual cycle – hormones

Hormone	Produced	Role
FSH (follicle stimulating hormone)	Pituitary gland	Causes an egg to mature in an ovary. Stimulates the ovaries to release oestrogen
Oestrogen	Ovaries	Stops FSH being produced (so that only one egg matures in a cycle). Repairs, thickens and maintains the uterus lining. Stimulates the pituitary gland to release LH.
LH (luteinising hormone)	Pituitary gland	Triggers ovulation (the release of a mature egg)
Progesterone	Ovaries	Maintains the lining of the uterus during the middle part of the menstrual cycle and during pregnancy.

The menstrual cycle

Day 1 : First day of menstrual period

Day 5 – 14: Lining of uterus thickens (FSH stimluates an egg to ripen)

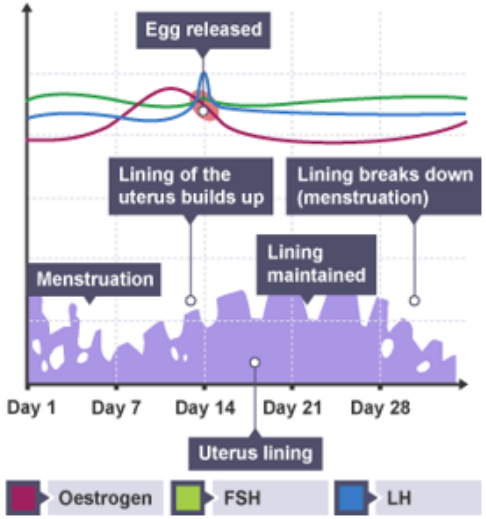
Day 14: Ovulation: An egg is released by an ovary (LH)

Day 14-28 : Lining thickens, egg travels to the uterus (oestrogen thickens lining , progesterone is produced by the egg)

If the egg is not feertilised it dies and the production of progesterone ceases.

The lining of the uterus sheds and the next menstrual period begins

The menstrual cycle



Non Hormonal contraception



Benefits and risks

- Condoms are easy and quick to use, but sometimes they can tear or rip.
- Diaphragms need to be put in just before sex and left in several hours afterwards.
- IUDs need to be fitted by a health professional. IUD can remain in position for up to 10 years. However, there is a small risk of causing an ectopic pregnancy.
- Spermicidal agents can be added to other physical barriers such as condoms, but some people can have allergic reactions to these.
- Abstaining can be used successfully, but if the timings are not accurate the chance of pregnancy is high.
- Surgical methods cannot be reversed, and is considered permanent

Hormonal methods of contraception

Pill, patch , implant and injection

The oral contraceptive, which is known as the pill, contains *oestrogen* or *progesterone*. These hormones inhibit the production of *FSH*, and eggs cannot mature.

Benefits and risks

Oral contraceptives are more than 99% effective if taken correctly and can reduce the risk of certain cancers.

However, there are possible side effects, such as changes in weight, mood and blood pressure due to high levels of oestrogen. Modern pills contain much less oestrogen.

Contraceptive injections, implants or skin patches contain slow release progesterone to inhibit the maturation and release of eggs.

Non hormonal contraception

Physical barrier methods such as condoms and diaphragms, which prevent the sperm reaching an egg

Intrauterine devices (IUD) also known as a coil, prevent the implantation of an embryo or release of a hormone

Spermicidal agents which kill or disable sperm

Abstaining from intercourse when an egg may be in the oviduct

Surgical methods of male and female sterilisation.

Barrier methods: Prevent the transmission of STIs such as HIV , gonohorrea and chalymidia

Fertilility treatments

1.FSH / LH given top the woman to sitmulate many eggs to ripen in the ovaries

2. Eggs harvested from the ovaries

3. Fetilised in a dish using sperm from the father / donor in the laboratory

4. The fertilised eggs develop into embryos.

5.At the stage when they are tiny balls of cells one or two embryos are inserted into the mother's uterus (womb)

IVF success – Low rates of live births

- 32.2% for women under 35
- 27.7% for women aged 35-37
- 20.8% for women aged 38-39
- 13.6% for women aged 40-42
- 5% for women aged 43-44
- 1.9% for women aged over

Advantages of IVF

- It allows people to have babies of their own, who otherwise can't due to a variety of reasons.
- It has a safe track record and has been used since 1978. The embryos can be screened for genetic diseases, which is important for families that already have an affected child. Only unaffected embryos are used.
- Unused eggs can be used for research or donated to other couples.

Disadvantages of IVF

- There are side effects form the drugs used, such as hot flushes and severe headaches.
- There is a possibility of multiple births, which is dangerous for mother and babies.
- Ovarian hyper-stimulation syndrome (OHS), when too many eggs develop in the ovaries.
- It is very emotionally and physically stressful.
- The success rates are not high.

Ethical concerns

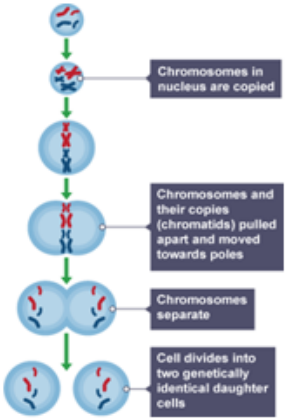
Some people worry about the ethical implications of IVF. They are concerned that couples may want 'designer babies' with 'desirable' qualities, so may only want certain fertilised eggs. For example, they may want a girl if they have lots of boys in the family.
Also, the embryos that are not used may be destroyed. Some people consider embryos to be new lives and view their destruction as unethical.

Asexual reproduction

1 parent , no gametes , gentically identical clones to the parent are produced
Bacteria , fungi spores, strawberries , potatoes and daffodils

Sexual reproduction : 2 parents , gametes produced by meiosis fuse to produce a zygote which is genetically unique
Sexual reproduction introduces **variation** . variation may lead to **advantage** which drives the process of **natural selection**

Uses the process of mitosis



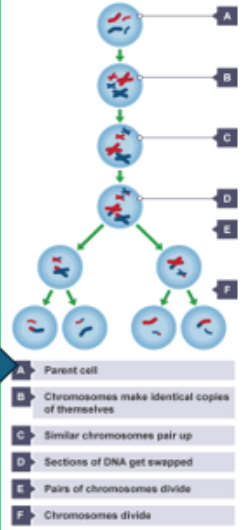
2 identical haploid cells are produced

Mitosis

Mitosis is part of the cell cycle, which involves: cell growth, and the increase of the number of structures in the cell (mitochondria, ribosomes) genetic material is copied mitosis occurs leading to *chromosomes* separation and cell division
Mitosis is also used for:

- growth
- repair to damaged tissue
- replacement of worn-out cells

Meiosis

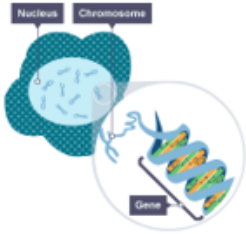


Comparing sexual and asexual reproduction

Type of Reproduction	Benefits to the species
Asexual Reproduction	◦ Allows species to grow numbers rapidly ◦ Little or no parental care ◦ All successful genes will be passed on to all offspring ◦ As there is no mate required it allows individuals that live in isolation to reproduce successfully
Sexual Reproduction	◦ Increase genetic variation (differences) in a population. The offspring will be different form all other members of the species ◦ Each offspring has a unique combination of genes, half passed on from its mother and half passed on from its father ◦ Increased variation ensures survival of the species as individuals may have genes that give them better characteristics e.g. disease resistance. This means they are more likely to survive and thrive in a changing environment

Genes and DNA

DNA is stored in chromsomes in the nucleus
DNA is a **polymer** forming a **double helix**
Gene: A section of DNA which codes for a characteristic
Genome: the entire genetic material of an organism
DNA is also called the genetic chemical , genetic molecule, Genetic information



The human genome

In 2003 the entire human genome was mapped
This was completed as part of a multinational project called " The human genome project"
There are around 20 000 genes which only makeup around 1.5% opf the entire genome
Understanding the human genome allows us to :

- search for genes linked to different types of disease
- understand inherited disorders and their treatment
- trace human migration patterns from the past

Knowledge Organiser – History
Topic 1: Medicine in Medieval Britain c.1250-Present

Medieval Britain	
1	Medieval Britain is the period between **1250-1500** also known as the 13th-16th century or the Middle Ages.
Key events	
2	**1123** Britain's first hospital, St Bartholomew's was set up in London
3	**1350** Average life expectancy is 35 years of age
4	**1348-49** The Black Death kills 1/3 of England's population
5	**1388** Parliament passes the first law requiring streets and rivers to be kept clean by the people
Key Concepts	
6	**The Medieval Church** –The official religion of medieval Britain was Roman Catholic. Daily life and power was dominated by the Church, they controlled education and many people feared God.
7	**The Four Humours.** First suggested by Greek doctor Hippocrates. **Black Bile, Yellow Bile, Blood and Phlegm.** These humours linked to elements and seasons. Hippocrates believed that if these humours became unbalanced you would get ill. To get better, you needed to balance them. Galen, a Greek doctor working in Rome continued the theory and added his own ideas. His '**Theory of Opposites**' to heal illness suggested using hot to cure cold.
8	**Medieval Power** The emphasis in Medieval Britain was on authority. The King had total power, but the Church had considerable control. People followed authority and would not question the views of King/Church as it would mean risking their lives.

Key Words		
9	**Superstition**	A belief, not based on knowledge, but on the supernatural. For example, witchcraft or astrology
10	**Purging**	To rid the body of an 'excess' like blood or vomit
11	**Leeching**	The use of leeches for bloodletting
12	**Cupping**	Using glass cups to draw blood to the surface
13	**Fasting**	To avoid eating or drinking
14	**Pilgrimage**	A journey to a religious shrine and relics to show your love of God and to cure an illness
15	**Mass**	Public worship in the Roman Catholic Church
16	**Astrology**	Study of the planets and their effect on humans
17	**Miasma**	Bad air which was blamed for spreading disease
18	**Apothecary**	A medieval pharmacist or chemist
19	**Wise Woman**	A female healer, who used folk medicine and herbal remedies to cure illnesses.
20	**Vademecum**	A medieval medical book carried by doctors
21	**Urine Chart**	Used to examine urine to define an illness
22	**Physician**	A male medically trained doctor
23	**Barber Surgeon**	Untrained surgeon, who practiced basic surgery
24	**Dissection**	To cut open a human and examine the insides
25	**Epidemic**	A widespread outbreak of a disease
26	**Trepanning**	Cutting a hole in the skull
27	**Amulet**	A charm that bought protection from disease
28	**Black Death**	A term to describe the bubonic plague
29	**Monastery**	A building where monks live, eat and pray

Knowledge Organiser – History
Topic 2: The Medical Renaissance in England 1500-1700

Renaissance England	
1	The Renaissance was the period between 1500-1700 in England. Art and Science were growing in importance.
Key events	
2	**1543** – Vesalius published *The Fabric of the Human Body*. It showed how the human body worked.
3	**1565** – the first dissection was carried out in Cambridge
4	**1628** Harvey published his book *An Anatomical Account of the Motion of the Heart and Blood* which showed blood moving around the body
5	**1645** – The first meeting of the Royal Society
6	**1665** The Great Plague in London. 75,000 died
Key Concepts	
7	**The King –** Despite some scientific developments, people still believed that the King could cure diseases such as **scrofula** (a skin disease). Being touched by the King was as close as you could get to being touched by God.
8	**Renaissance** – this was a time of change (re-birth) when people became interested in all things Greek and Roman. Printing was developed so that books could be published (e.g. Galen, Vesalius). People realised the Greeks had loved enquiry – asking questions and challenging old ideas. They started to do the same – e.g challenging Galen's theories
9	**Evidence** – rather than believing & accepting old ideas (e.g. The Four Humours) without question, scientists and doctors were more willing to experiment (e.g. dissecting bodies) to make scientific discoveries. People started to look to evidence over tradition.

Key Words		
10	**Continuity**	Things or ideas that stayed the same over time
11	**London Treacle**	A medicine that was solve to cure the Plague. It contained herbs, spices, honey and opium
12	**Autopsy**	Dissecting a body after someone has died to establish cause of death
13	**Diagnosing**	Finding out what disease someone has by e.g. taking their pulse and observing the patient
14	**Royal Society**	A group of people interested in science who met weekly. They had a laboratory with microscopes. King Charles II was a patron.
15	**Anatomy**	The study of the human body and how it works
16	**Physiology**	The workings of the body
17	**Microscope**	A new invention that allowed things to be magnified
18	**Thermometer**	A new invention that allowed someone's temperature to be taken
19	**Mortality Bill**	A document in each parish which recorded who had died and what had killed them.
20	**Pesthouse**	A hospital for people suffering from infectious diseases, e.g the Plague.
21	**Printing**	The process of creating a book. This was developed during the Renaissance

Knowledge Organiser – History
Topic 3: Medicine in 18th and 19th Century Britain

18th and 19th century Britain	
1	This was a time of breakthroughs in medicine in England. There were many scientific discoveries but also many Public Health problems.
Key events	
2	**1798** – Edward Jenner developed the first vaccine for Smallpox
3	**1847** – James Simpson developed chloroform as an anaesthetic
4	**1848 –** The First Public Health Act
5	**1854** – John Snow's maps proved the source of cholera
6	**1854 –** Florence Nightingale improves conditions in hospitals
7	**1861** – Louis Pasteur's germ theory was published
8	**1866 -** most of London was connected to a sewer network devised by Joseph Bazalgette
9	**1867-** Lister used antiseptic to prevent infection
10	**1875 –** The Second Public Health Act
11	**1882** Robert Koch identified bacteria that caused specific diseases
Key Concepts	
12	**Nursing** – Nurses are responsible for the care of patients in hospital. Before 1800, hospitals were dangerous places where death was very likely. The development of nursing changed that.
13	**Breakthrough –** a scientific discovery that dramatically alters the way people understood disease – e.g. the discovery of bacteria. This then helps the problem to be solved.
14	**Public Health –** when the government takes measures to prevent diseases spreading and to help the population become healthier. The government increasingly took on this role after the development of germ theory

Key Words		
15	**Vaccine**	The injection into the body of killed or weakened organisms to give the body resistance against disease
16	**Smallpox**	A dangerous disease causing fever that was beaten by vaccination
17	**Anaesthetic**	Drugs given to make someone unconscious before or after surgery
18	**Infection**	The formation of disease causing germs
19	**Cholera**	A bacterial infection caused by drinking water
20	**Germ Theory**	The theory that germs cause disease
21	**Antiseptic**	Chemicals used to destroy bacteria and prevent infection
22	**Medical Officer**	A person appointed to look after the public health of an area
23	**Contagion**	The passing of disease from one person to another
24	**Epidemic**	A widespread outbreak of a disease
25	**Sanitation**	Providing disposal of human waste and dispensing clean water to improve public health
26	**Workhouses**	Accommodation for poor people who could not afford to pay for rent and food.
27	**Dispensary**	A place where medicines are given out
28	**Voluntary hospital**	Hospitals supported by charitable donations
29	**Chloroform**	A liquid whose vapour acts as an anaesthetic and produces unconsciousness
30	**Industrial Revolution**	A period of British history when industries (e.g. coal, steel) transformed society

Knowledge Organiser – History
Topic 4: Modern Medicine – 1900 - Present

Modern Britain	
1	From 1900-Present, there have been massive changes in medicine and treatment
Key events	
2	**1900 –** life expectancy was still below 50 years of age
3	**1909** – The first Magic Bullet – Salvarsan 606
4	**1911 –** National Insurance Bill introduced – gave help if workers were sick or unemployed
5	**1914-1918** World War One leads to developments in surgery and treatment
6	**1928** – Fleming discovered penicillin
7	**1932 –** The second Magic Bullet – Prontosil
8	**1938 –** Florey and Chain developed use of penicillin
9	**1948 –** The NHS begins following the Beveridge report (1942)
10	**1953** – Crick and Watson discovered the structure of DNA
Key Concepts	
11	**War** – World War One and World War Two forced developments in treatment and surgery – e.g. plastic surgery and the use of antibiotics in WW2.
12	**Technology** – huge improvements in technology greatly improved the understanding and treatment of disease – e.g. X-ray, DNA, Pacemakers, dialysis and keyhole surgery
13	**National Health Service** - After WW2, the government introduced the NHS in 1948. This offered free healthcare at the point of delivery. The expansion of who could vote and the shared experience of suffering in WW2 bought about this development.

Key Words		
14	**X-Ray**	Technology using particular light rays . Used in WW1 to locate bullets in the body.
15	**Transplant**	When a faulty or damaged organ (e.g. liver) is swapped with a healthy one through surgery
16	**Radiotheraphy /Chemotherapy**	Treatment of a disease, such as cancer, by the use of chemicals
17	**Superbugs**	Bacteria that are not affected/destroyed by antibiotics or cleaning
18	**Gene therapy**	Medical treatment using normal genes to replace defective ones.
19	**Dialysis**	Technology that replicates the function of the kidneys
20	**Polio**	A contagious disease that can cause paralysis and death
21	**Penicillin**	The first antibiotic drug produced from the mould of penicillin to treat infections
22	**Pacemaker**	Implanted technology that regulates heartbeat
23	**Antibiotics**	A drug made from bacteria that kill other bacteria and so cure an infection or illness
24	**Magic bullets**	A chemical that kills a particular bacteria and nothing else
25	**Electron microscope**	Developed 1931. Allows doctors to see cells in fine detail.
26	**DNA**	Deoxyribonucleic acid, the molecule that genes are made of
27	**Cancer**	A group of related diseases. Cells divide and spread into the surrounding tissue.

Geography

Measuring Development

Development measures how economically, socially, culturally or technologically advanced a country is. It suggests: advancement, evolution, expansion, growth, improvement, increase, maturity, progress, changes for the better.

Development Indicators

GNI	Gross National Income (Money earned by residents of a country including money earned abroad).
HDI	Human Development Index. Calculated using life expectancy, education, and per capita income.
Infant mortality	How many children per 1000 die before they are 1.
Literacy rate	The % of adults that read and write acceptably.

You must know advantages and disadvantages of each of these measures.

Classifying the World's Development



- An HIC has an GNI per capita of over $12,000.
- A NEE has an economy that is rapidly progressing.
- A LIC has a GNI per capita of below $800.

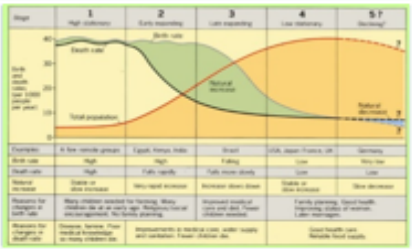
In the 1980's, Dr Brandt classified the world into the rich north and the poor south. He drew this line called the Brandt Line or the North-South Divide. However, over time countries in the south began to develop e.g. Singapore and China, and the line became outdated.

Key terms

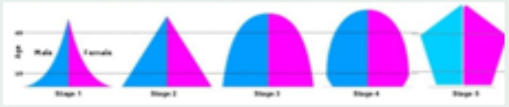
Standard of living refers to the economic level of a person's daily life.
Quality of life is a social measure of wellbeing.

Measuring Population

The demographic transition model shows how a country's population changes as it becomes more developed, from subsistence farming cultures (LICs) to HICs.



Population pyramids change over time too – from having a lot of babies (a wide base), to good healthcare and more elderly people (a wide top).



Factors Causing Uneven Development

Physical Environment

- Soil erosion, desertification, climate (and climate change), overgrazing and infertile soils affect farming.
- Areas without fertile land, natural resources, water and energy suffer.
- Natural hazards make little progress with development e.g. Haiti.

Health

- Diseases can make people too weak to work or go to school.
- 80% of all developing world disease is water-related. 2 million die a year.
- LIC's are unable to invest in good quality health care

Trade

- Trade blocs favour member states.
- Primary products sold by LICs are sold for cheap prices that can fluctuate. HICs make more expensive products so earn more.
- Poor infrastructure or conflict means some people cannot sell their goods at all.

History

- Colonialism: Many countries in Asia, South America and Africa have spent a lot of time and money on civil wars and political struggles for power since being made separate from European superpowers.
- Many LICs haven't had time to develop fully.

Unit 2b
The Changing Economic World

AQA

Solutions to Uneven Development

TNC investment	Aid
Industrial Development	Intermediate Technology
Fair Trade	Debt Relief
Microfinance loans	Tourism

Tourism in Jamaica

Background: Jamaica is one of the largest islands in the west Indies. Population 2.7 million. Its economy is partly based on minerals, agriculture and some manufacturing. It has suffered slow growth, debt and high unemployment.

Attractions: Beach holidays with beautiful sandy beaches and clear seas. Warm sunny climate and rich cultural heritage. Jamaica is a hub for cruise ships

Positive Impacts	Negative Impacts
-Provides jobs for 200,000 people - Helps further boosts the economy as people spend money in shops and on services -Improves infrastructure. New port and cruise liner facilities -Quality of life	- Not all areas improved in terms of infrastructure -Inequality in standard of living in other parts of the island - Mass tourism can create environmental problems

Sustainable Tourism

Sustainable tourism aims to support local communities socially and economically whilst causing no harm to the environment e.g. small-scale lodge developments employing local people and using local foods in Kenya.

UK Links

Ports

- The UK's port industry is the biggest in Europe due to our large coastline.
- There are 120 ports in the UK. Dover is the largest and Teesport is the 3rd biggest.
- 12 million people and 700,000 freight lorries travel from Dover a year.

Air

- Heathrow is the UK's busiest airport with 1 plane taking off every 45 seconds.
- 300,000 people are employed in UK aviation.
- As well as large international airports small centres e.g. Cambridge airfield allow internal flights.

Roads

- The first motorway the UK was opened in 1958.
- By 2008 there were 2,200 miles of motorways allowing rapid movement around the country.
- The A1 is the longest road in the UK and connects London and the north-east.

UK Global Links

Political

Commonwealth
- In 1922 Britain ruled over an empire of 458 million people (about 20% of the world's population and 53 countries).
- Many expats (Brits who live abroad) live in these ex-colonies.
- Many of these ex-colonies are part of the Commonwealth, choosing to keep close ties.

EU
- The UK joined the EU in 1973 with the aim of becoming part of the common market and improving trade between countries.
- The UK opted to leave in 2016. Brexit negotiations are ongoing and outcomes are unsure.
- About 50% of exports and imports are to the EU.

Other links
- The UK is a member of the G8, a group of 8 countries whose leaders meet to discuss important issues.
- The UK is a member of NATO (North Atlantic Treaty Organisation) a group of European countries and the USA. Leaders meet to keep peace.
- The UK is a member of the UN Security Council in which 15 countries meet to keep peace.

Trade

- 50% of the UK's exports go to EU countries, and 50% went to non-EU countries such as the USA and China. The USA takes the most.
- A lot of trade is now finance and communications following deindustrialisation.

Transport

- More than 750,000 international flights depart from the UK annually to 400 airports in 114 countries.
- Heathrow is the 4th busiest airport in the world.
- Eurotunnel links Britain to Europe.

Culture

- Spoken English has helped create strong links with countries.
- British exams can be sat abroad; recognised for their quality.
- UK TV productions have a global audience.
- We are a culture of immigration leading to a unique and multicultural society.

Technology

- The UK is a centre for submarine internet cables connecting the whole world.
- 18 million British businesses run from home.

Economic and Industrial Change in Nigeria

History and Landscape

- West Africa, North of the Equator
- Largest population of Africa – 184 million
- NEE – 3rd largest manufacturing economy in Africa
- Largest economy in Africa
- By 2020 should be one of the top economies
- Youthful educated population – skilled workforce for manufacturing and services



Changes in Employment Structure

- Today, 63% of people in Nigeria are employed in the tertiary sector.
- A large number of people in rural areas are still employed in the primary sector, although this sector is continuing to decrease.
- Secondary industry contributes greatly to the country's GNI.
- Increased investment in infrastructure has encouraged tourism and manufacturing.

- 60% live on less than US$1.25 a day. Growing inequality
- GDP 2006 – US$110 billion, GDP 2015 US$560 billion
- Money earned from Services 52%, Manufacturing 7%, Oil and gas 14%, Agriculture 22%, Other 5%
- Nollywood – 3rd largest film industry in the world
- 70% employed in agriculture
- Rapid increase in telecommunications and retail
- Manufacturing increasing – processed food, leather, textiles, soap, detergents

TNCs in Nigeria



- Niger delta – oil. Royal Dutch Shell, Exxon Mobil, Chevron, Total and Agip
- Platforms and pipelines installed. Oil shipped to Europe and USA to be refined. Most profit leaked
- Nigerian National Petroleum Corporation – joint ventures with TNCS
- 40 TNCS – mostly UK, Europe and USA
- Damage to wetland and coastal ecosystems which people rely on

Social issues:
- More that 50% of workers are able to afford their own home.
- Workers rights are sometimes breached in order to make greater profits.

Economic issues:
- New jobs mean more income and increased quality of life
- Oil wealth not used effectively.
- Overdependence on oil may become an issue as oil prices fall and new technology such as fracking develop

Environmental issues:
- Waste disposal - chemicals buried underground leak into water courses.

Aid to Nigeria



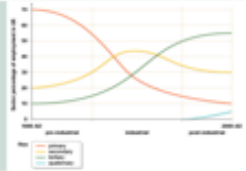
- ODA – Official Development Assistance – can be multilateral (World Bank / IMF) or bilateral (from one country)
- Voluntary aid – can be short term emergency relief or long-term development assistance
- 2009 – 2013 : 60 million mosquito nets distributed
- UK gives US$300 million year of aid
- Receives 4% of aid given to Africa
- Most successful projects are community based
- Problems include government corruption, government diverting money, donors have political influence, promoting commercial self interest

Impacts of Development in Nigeria

- Rated 152/187 countries in terms of HDI. Improving and is increasing quickly
- New jobs mean more income and increased quality of life
- Lack of access to safe water, sanitation and reliable electricity supply
- Overdependence on oil may become an issue as oil prices fall and new technology such as fracking develop
- Key challenges include continuing stable government, pollution of the Niger delta, tsetse fly affecting commercial livestock, desertification, religious conflict between north and south, Boko Harem extremist group

Economic and Industrial Change in the UK

Industrialisation took place in the UK during the 1800s. Most early manufacturing industry took place in areas with coal fields which provided energy. This was a break of bulk location, reducing transport costs.



De-industrialisation is the decline in secondary (manufacturing) industries, and the subsequent growth in tertiary and quaternary employment.

The UK has experienced de-industrialisation changing into a post-industrial economy; with more tertiary & quaternary industries. Secondary industries has moved to cheaper countries e.g. China.

Industry in the Northeast of England was characterised by heavy industry, including coal mines, iron and steel industry and ship building and petrochemicals. As raw materials were used up, and it became cheaper to produce steel and ships abroad, these heavy industries fell into decline.

The ICI plant in Middlesborough closed making 30,000 people redundant. The Easington colliery (coal mine) closed in 1993 making 1400 people in a town of 5,000 unemployed. A lack of transferable skills made it hard for these people to find jobs.



De-industrialisation has many socio-economic impacts.
High unemployment leads to the decline of services in affected areas. Reliance on benefits leads to a decline in housing quality.
Life expectancy in de-industrialised areas is lower than the national average. Average GCSE grades are also lower in these areas.

Modern industrial developments in the UK

For years the UK thrived due to its secondary industries. However, it is now a post-industrial economy; one where most manufacturing jobs have been replaced by jobs in the service industries. A new sector that is growing rapidly is the quaternary industry. Quaternary jobs are those that involve highly skilled people who carry out research, provide information and give advice e.g. financial advisers, research scientists.

CAMBRIDGE SCIENCE PARK

Located to the north-east of Cambridge the site is home to over 1,500 IT and bio-technology (quaternary) companies. Location factors include closeness to a major junction of the A14 which provides rapid access to the M11, and thereafter Heathrow and London. It is on cheaper land at the edge of the city. This land is flat and there is room for expansion. The proximity to Cambridge University promotes strong working relationships and access to the best University graduates.

Toyota, Burnaston
1.5 million cars are manufactured in the UK by 7 large TNCs. Toyota are attempting to become more sustainable in a number of ways.
- They have installed 17,000 solar panels and introduced more efficient practices. They aim to reach zero carbon emissions at the plant by 2050.
- They are reducing water use, using rainwater harvesting methods and ensuring that all water used is purified before being returned to the environment.

The North-South Divide



Most areas affected by de-industrialisation are in the north and west of the UK. The areas of industrial growth tend to be in the south and west. The divide has led to social and economic differences. Unemployment in the northeast is 5.5% higher than the southeast. Average pay is £4,000 higher in the south and life expectancy is 2.5 years longer.
In attempt to reduce the differences between the north and south governments have supported a number of schemes.

HS2 / HS3
HS2 and 3 are High Speed rail links that will run from London to Birmingham, and then on to Manchester and Leeds.
Benefits - reduced travel times to the north will encourage the location of industry in the north. 100,000 jobs will be created.
Problems - The scheme will cost over £50 billion, lead to 600 homes being demolished, and 150 nature sites being affected.

Roads
£6 billion will be invested in northern roads to reduce congestion.
Benefit - This will encourage industrial location as it will reduce the cost associated with longer transport times.
Problem - We should be discouraging road use.



Other UK Transport Improvements

London Gateway
Only 30 miles from Central London. It should handle 3.5 million containers per year.
Benefit: It will reduce the need for over 2,000 lorries to collect and deliver from Southampton port.

Heathrow Expansion
Heathrow is operating at full capacity with 480,000 flights each year. A third runway, costing £20 billion will allow more flights.
Benefit - Encourage more industry to locate in the UK.
Problems - Cost, noise pollution and one village demolished.

Unit 1a
The Challenge of Natural Hazards

AQA

What are Natural Hazards?

Natural hazards are physical events such as earthquakes and volcanoes that have the potential to do damage to humans and property. Hazards include tectonic hazards, tropical storms and forest fires.

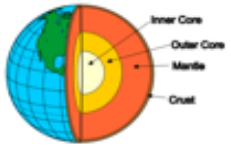
What affects hazard risk?

Population growth
Global climate change
Deforestation
Wealth - LICs are particularly at risk as they do not have the money to protect themselves



Structure of the Earth

The earth has 4 layers
The core (divided into inner and outer), mantle and crust.

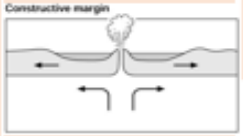


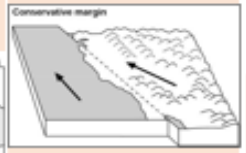
The crust is split into major sections called **tectonic plates**.

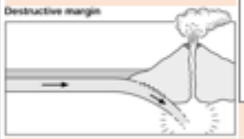
There are 2 types of crust: **Oceanic** (thin and younger but dense) and **Continental** (old and thicker but less dense).

These plates move due to convection currents in the mantle and, where they meet, tectonic activity (volcanoes and earthquakes) occurs...

Plates either move towards each other (**destructive** margin) away from each other (**constructive**) or past each other (**conservative**).







Earthquakes and Volcanoes

Volcanoes	Earthquakes
- **Constructive** margins – Hot magma rises between the plates e.g. Iceland. Forms Shield volcanoes. - **Destructive** margins – an oceanic plate subducts under a continental plate. Friction causes oceanic plate to melt and pressure forces magma up to form composite volcanoes e.g. the west coast of South America.	- **Constructive** margins – usually small earthquakes as plates pull apart. - **Destructive** margins – violent earthquakes as pressure builds and is then released. - **Conservative** margins – plates slide past each other. They catch and then as pressure builds it is released e.g. San Andreas fault.

Effects of Tectonic Hazards

Primary effects happen immediately. Secondary effects happen as a result of the primary effects and are therefore often later.

Primary - Earthquakes	Secondary - Earthquakes
- Property and buildings destroyed. - People injured or killed. - Ports, roads, railways damaged. - Pipes (water and gas) and electricity cables broken.	- Business reduced as money spent repairing property. - Blocked transport hinders emergency services. - Broken gas pipes cause fire. - Broken water pipes lead to a lack of fresh water.
Primary - Volcanoes	**Secondary - Volcanoes**
- Property and farm land destroyed. - People and animals killed or injured. - Air travel halted due to volcanic ash. - Water supplies contaminated.	- Economy slows down. Emergency services struggle to arrive. - Possible flooding if ice melts Tourism can increase as people come to watch. - Ash breaks down leading to fertile farm land.

Responses to Tectonic Hazards

Immediate (short term)	Long-term
- **Issue warnings if possible.** - **Rescue teams search for survivors.** - **Treat injured.** - **Provide food and shelter, food and drink.** - **Recover bodies.** - **Extinguish fires.**	- **Repair and re-build properties and infrastructure.** - **Improve building regulations** - **Restore utilities.** - **Resettle locals elsewhere.** - **Develop opportunities for recovery of economy.** - **Install monitoring technology.**

Comparing Earthquakes – Nepal and Chile

	Nepal. April 2015. Magnitude 7.8.	Chile. February 27 2010. Magnitude 8.8
Primary Effects	9000 deaths 23000 injured Over 500,000 homes destroyed Historic buildings including Dharahara Tower fell 26 hospitals and 50% of schools destroyed	500 deaths 12000 people injured. 220000 homes, 4500 schools , 56 hospitals destroyed Much of Chile lost power, water supplies and communications
Secondary Effects	Avalanche on Mount Everest killing 19 people. Loss of income from tourism (which was 8.9% of Nepal's GDP). Rice seed stored in homes was ruined as homes collapsed. This caused food shortages.	1500km of roads damaged Coastal towns devastated by tsunami A fire at a chemical plant
Immediate Responses	Nepal requested international help. UK's DEC raised $126 million. Red Cross- tents for 225,000 people. UN and WHO distributed medical supplies to the worst districts. Facebook launched a safety feature so people could indicate they were safe.	Emergency services acted swiftly Temporary repairs to roads enabling transport Power restored to 90% of homes within 10 days
Long term responses	Rebuilding. World Heritage Sites reopen June 2015. Longer climbing season.	Government launched a housing reconstruction plan to help 200000 households Economy could be rebuilt without foreign aid

LICs suffer more than HICs from natural disasters because they are not as prepared and struggle to react effectively.

Distribution of tectonic activity

Along plate boundaries.
On the edge of continents.
Around the edge of the Pacific.

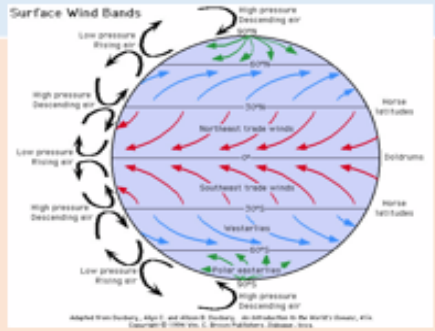


Reducing the impact of tectonic hazards

Monitoring	Prediction
Seismometers measure earth movement. Volcanoes give off gases.	By observing monitoring data, this can allow evacuation before event.
Protection	**Planning**
Reinforced buildings and making building foundations that absorb movement. Automatic shut offs for gas and electricity.	Avoid building in at risk areas. Training for emergency services and planned evacuation routes and drills.

Global atmospheric circulation

At the equator, the sun's rays are most concentrated. This means it is hotter. This one fact causes global atmospheric circulation at different latitudes.



High pressure = dry
Low pressure = wet
As the air heats it rises – causing low pressure. As it cools, it sinks, causing high pressure. Winds move from high pressure to low pressure. They curve because of the **Coriolis** effect (the turning of the Earth)

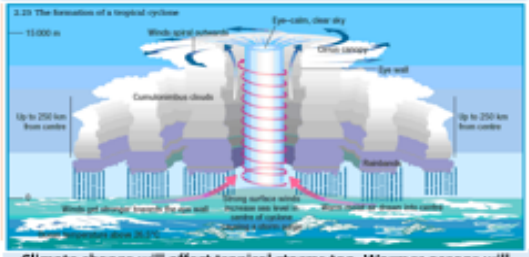
Tropical Storms

Occur in low latitudes between 5° and 30° north and south of the equator (in the tropics). Ocean temperature needs to be above 27° C. Happen between summer and autumn.



Sequence of a Tropical Storm

1. Air is heated above warm tropical oceans.
2. Air rises under low pressure conditions.
3. Strong winds form as rising air draws in more air and moisture causing torrential rain.
4. Air spins due to Coriolis effect around a calm eye of the storm.
5. Cold air sinks in the eye so it is clear and dry.
6. Heat is given off as it cools powering the storm.
7. On meeting land, it loses source of heat and moisture so loses power.



Climate change will affect tropical storms too. Warmer oceans will lead to more intense storms – but not necessarily more frequent ones.

Extreme weather in the UK

Rain – can cause flooding damaging homes and business.
Snow & Ice – causes injuries and disruption to schools and business. Destroys farm crops.
Hail – causes damage to property and crops.
Drought – limited water supply can damage crops.
Wind – damage to property and damage to trees potentially leading to injury.
Thunderstorms – lightening can cause fires or even death.
Heat waves – causes breathing difficulties and can disrupt travel.

UK weather is getting more extreme due to climate change. Temperatures are more extreme and rain is more frequent and intense leading to more flooding events. Since 1980 average temperature has increased 1 degree and winter rainfall has increased.

Typhoon Haiyan, Philippines, November 2013

Primary Effects	Secondary Effects
At least 6340 killed 314 km/hr wind speeds. 5m Storm Surge 90% buildings in Tacloban destroyed Habitats & Crops destroyed	$1.5 Billion of damage Water supply polluted 1.9 million homeless, 6 million displaced Public Order – Looting Airports unusable for supplies

Immediate Responses	Long-term Responses
70-80% of New Orleans evacuated before hurricane reached land. State of emergency declared in Louisiana and Mississippi. Emergency shelters set up in public buildings. UK and US send navy ships. Charities provided shelter, food and medical supplies.	UN appeal raised $788 million. Another $500 million from other governments. Some houses rebuilt on stilts. Some areas zoned as no build areas. Improved warning systems put in place.



Prediction	Planning	Protection
Monitoring wind patterns allows path to be predicted. Use of satellites to monitor path to allow evacuation	Avoid building in high risk areas Emergency drills Evacuation routes	Reinforced buildings and stilts to make safe Flood defences eg levees and sea walls Replanting Mangroves

4th-5th December 2015 – Storm Desmond

The 4th named storm of the winter of 2015-16. Particularly affected Cumbria. 341.4 mm of rainfall recorded in 24 hrs

Social Effects

3 deaths.
19000 homes flooded across Northern England.
100,000 homes affected by power cuts.
More than 40 schools in Cumbria were closed. Appointments in many hospitals in Cumbria were cancelled as hospitals had no mains electricity.

Economic Effects

Caused £500 million damage in Cumbria.
Landslides and flooding closed some main roads and many bridges were damaged causing extra transport costs for businesses.
The rail route between England and Scotland was closed due to flooding.

Environmental Impacts

Large amounts of soil were washed into the rivers, with millions of tonnes of silt transported by rivers and deposited on floodplains

Management strategies

Met Office issued weather warning
Environment agency issued flood warning
Soldiers took supplies to remote areas in the Lake District.
The government gave £50 million to repair damage in Cumbria and Lancashire.
The Cumbria Flood Recovery Fund 2015 helped families who had little insurance .

Climate Change – natural or human?

Evidence for climate change shows changes before humans were on the planet. So some of it must be natural. However, the rate of change since the 1970s is unprecedented. Humans are responsible – despite what Mr Trump says!

Causes

Natural	Human
- **Orbital changes** – The sun's energy on the Earth's surface changes as the Earth's orbit is elliptical its axis is tilted on an angle. - **Solar Output** – sunspots increase to a maximum every 11 years. - **Volcanic activity** – volcanic aerosols reflect sunlight away reducing global temperatures temporarily.	- **Fossil fuels** – release carbon dioxide with accounts for 50% of greenhouse gases. - **Agriculture** – accounts for around 20% of greenhouse gases due to methane production from cows etc. Larger populations and growing demand for met and rice increase contribution. - **Deforestation** – logging and clearing land for agriculture increases carbon dioxide in the atmosphere and reduces ability to planet to absorb carbon through photosynthesis.

Effects of Climate Change

Social	Environmental
- Increased disease eg. skin cancer and heat stroke. - Winter deaths decrease with milder winters. - Crop yields affected by up to 12% in South America but will increase in Northern Europe but will need more irrigation. - Less ice in Arctic Ocean increases shipping and extraction of oil and gas reserves. - Droughts reduce food and water supply in sub-Saharan Africa. Water scarcity in South and South East UK. - Increased flood risk. 70% of Asia is at risk of increased flooding - Declining fish in some areas affect diet and jobs. - Increased extreme weath - Skiing industry in Alps threatened.	- Increased drought in Mediterranean region. - Lower rainfall causes food shortages for orangutans in Borneo and Indonesia. - Sea level rise leads to flooding and coastal erosion. - Ice melts threaten habitats of polar bears. - Warmer rivers affect marine wildlife. - Forests in North America may experience more pests, disease and forest fires. - Coral bleaching and decline in biodiversity.



Managing Climate Change

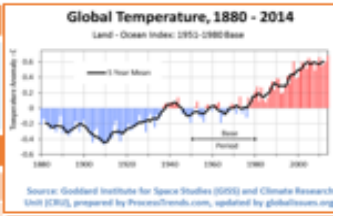
Mitigation



- **Alternative energy production** will reduce CO_2 production.
- **Planting Trees** – helps to remove carbon dioxide.
- **Carbon Capture** – takes carbon dioxide from emission sources is stored underground.
- **International Agreements** e.g. the Paris Climate Agreement.

Adaption

- **Changes in agricultural systems** need to react to changing rainfall and temperature patterns and threat of disease and pests.
- **Managing water supplies** – eg. by installing water efficient devices and increasing supply through **desalination** plants.
- **Reducing risk** from rising sea levels would involve constructing defences such as the Thames Flood Barrier or restoring mangrove forests, or raising buildings on stilts.



Evidence for Climate Change

The Met Office has reliable climate evidence since 1914 – but we can tell what happened before that using several methods.

Ice and Sediment Cores

- Ice sheets are made up of layers of snow, one per year. Gases trapped in layers of ice can be analysed. Ice cores from Antarctica show changes over the last 400 000 years.
- Remains of organisms found in cores from the ocean floor can by traced back 5 million years.

Pollen Analysis

- Pollen is preserved in sediment. Different species need different climatic conditions.

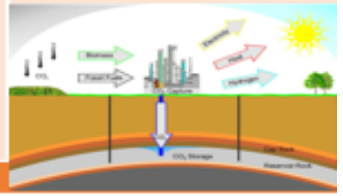
Tree Rings



- A tree grows one new ring each year. Rings are thicker in warm, wet conditions
- This gives us reliable evidence for the last 10 000 years.

Temperature Records

- Historical records date back to the 1850s. Historical records also tell us about harvest and weather reports.



R.E

Beliefs & teachings: Christianity

Key Beliefs

Christianity is a **monotheistic** religion – they believe in ONE God.

Christians believe God is:
Omnipotent *(all powerful)*
Omniscient *(all knowing)*
Omnipresent *(everywhere)*
Benevolent *(loving)*
Transcendent *(beyond understanding)*
Immanent *(personal)*
Eternal *(no beginning and no end)*
Forgiving *(he will forgive sins)*

Creation

Science tells us that our universe is approx. 14bnyears old, and our planet is approx. 4bn years old.
An explosion (The Big Bang)led to the creation of all space, time and matter. Humans have evolved overtime, through a processo f **natural selection**. This is called '**evolution**



Genesis 1 &2 says that God created the world in6 days, and on the 7th He rested. Some Christians take this **LITERALLY** and read this story as **fact (fundamentalist).**Others see the Genesis story as a **symbolic** story**(Liberal)**



The problem of evil

Moral evil = suffering caused by humans
Natural evil = suffering caused by nature



Responses:

1. Suffering is a **necessary** part of life
2. Suffering is **temporary**
3. Suffering is a punishment for **sin**
4. Suffering is caused by humanity's **free will**
5. Suffering is a part of God's **plan**
6. Suffering is a **test of faith**

Christians believe they will be **judged** on their actions in this life on judgement day –**Parousia.**

The Incarnation

Christians believe Jesus is the Son of God. He is God in**human form**, or God **'incarnate'.**
"The word became flesh and made his dwelling among us"

- Jesus gave humanity an **example** to follow.
- Even though Jesus is God in human form, he valued everyone equally: ***"For you are all one in Christ".***
- God **sacrificed** himself on the cross to take away the sins of human beings: ***"For God so loved the world that He gave His only Son"***
- Jesus is both immanent and personal



Life after death

HEAVEN

Heaven is traditionally seen as a physical pla ce where God is. Jesus called it *"paradise"* or *"my Father's house"*. Amore modern view is that heaven is simply 'with God'.



PURGATORY

Roman Catholics believe there is a place before heaven, where people go to have their sins cleansed. People say prayers for **souls** to be released from Purgatory.



HELL

Hell can be an actual place of torment and suffering OR it can be when man is separated from God.



SOULS

Our souls are:
- Immortal
- God-given
- Eternal
- Make us distinct from the rest of creation
- Return to God when we die



Crucifixion

Definition: Refers to the physical and emotional suffering Jesus experienced before and during his crucifixion



Jesus was:
- Arrested and put on trial.
- Mocked, beaten, and flogged by Roman soldiers.
- Forced to carry his cross to the place of execution.
- Crucified (nailed to a cross) and left to die.

Key Ideas:
- Jesus accepted suffering willingly.
- His suffering is seen as a sacrifice to atone for human sin.
- Shows forgiveness (e.g. "Father, forgive them…").
- Demonstrates love and obedience to God.

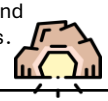
Importance for Christians:
- Central to belief in salvation (Jesus died to save humanity).
- Shows the extent of God's love for humans.
- Inspires Christians to forgive others and endure suffering.
- Forms the basis of Good Friday remembrance.

Resurrection

Definition: The belief that Jesus rose bodily from the dead on the third day after his crucifixion.

Key ideas:
- Found in the Gospels (e.g. empty tomb, appearances to disciples).
- Shows Jesus' victory over death and sin.
- Confirms belief that Jesus is the Son of God.

Importance for Christians:
- Gives hope of life after death.
- Strengthens faith in salvation and forgiveness.



Ascension

Definition: The event where Jesus was **taken up to heaven** (40 days after the Resurrection).
Source: Described in the **Book of Acts (Acts 1:9–11).**
Key ideas:
- Jesus returns to be with **God the Father**.
- Marks the **end of his physical presence on Earth**.

Importance for Christians:
- Shows Jesus' **divine authority and glory**.
- Leads to the coming of the **Holy Spirit at Pentecost**. Reassures believers that Jesus is **interceding for them in heaven**.



Salvation

Salvation means **'to be saved from a bad situation'.** In Christianity, this bad situation is sin, and the consequences of sin.
Sin has separated humans from God, and salvation enables humans to get close to God again.
Christians believe that Jesus' death makes up for the **original sin** committed by Adam & Eve and so can bring people back to god.
Jesus knew his death was **necessary** to restore the relationship between god and the believers and make the opportunity for salvation available to all people.
Jesus (as the Son of God) could have easily avoided being crucified. His crucifixion was the result of human evil against an innocent man. It needed to happen, in order to **atone** for the sins of humanity.




Key teachings from the Bible

"In the beginning was the Word, and the Word was with God, and the Word was God. He was with God in the beginning. Through him all things were made; without him nothing was made that has been made." John 1: 1-3

This passage emphasizes the divine nature of Jesus Christ, referred to as "the Word," affirming that He existed from the very beginning and played a crucial role in creation



"In the beginning, God created the heavens and the earth. Now the earth was formless and empty, darkness was over the surface of the deep, and the Spirit of God was hovering over the waters.
And God said, "Let there be light," and there was light." Genesis 1: 1-3

This passage when linked with John 1:1-3 places Jesus at creation.

The parable of the sheep and the goats.



Jesus is asked who gets to go to heaven and he explains For I was hungry and you gave me something to eat, I was thirsty and you gave me something to drink, I was a stranger and you invited me in, [36] I needed clothes and you clothed me, I was sick and you looked after me, I was in prison and you came to visit me.'
"Whatever you did for the least of these brothers of mine , you did for me"

The **Parable of the Good Samaritan** is a story Jesus tells in the Bible (Luke 10:25–37).
A man is traveling from Jerusalem to Jericho when he is attacked by robbers. They beat him, take his belongings, and leave him badly injured on the side of the road.
A priest walks by and sees the man, but passes on the other side without helping. Later, a Levite (a religious helper) does the same—he also avoids the injured man.
Then a Samaritan—someone from a group that Jews usually disliked—comes along. Unlike the others, he feels compassion. He stops, cares for the man's wounds, takes him to an inn, and pays for his care.

Main message:
The story teaches that we should show kindness and compassion to everyone, even people who are different from us or whom society might expect us to ignore.

The Miracles of Jesus

The story of **Jesus Calming the Storm** is found in the Gospels (e.g., Mark 4:35–41).
Jesus and his disciples are in a boat crossing a lake when a violent storm arises. The waves crash over the boat, and the disciples become afraid, thinking they might drown. Meanwhile, Jesus is asleep.
They wake him, asking why he doesn't care about what's happening. Jesus gets up, rebukes the wind and waves, saying, "Quiet! Be still!"
Immediately, the storm stops and the sea becomes calm.
He then asks the disciples why they were afraid and if they still lack faith.
Main message:
The story shows Jesus' power over nature and teaches the importance of trusting him, even in scary or uncertain situations



Jesus turns water into wine

Jesus is at a wedding in Cana with his mother and disciples when the hosts run out of wine, which would have been embarrassing. Mary tells Jesus about the problem. Jesus then instructs the servants to fill large jars with water.
After they do this, Jesus turns the water into wine. When the master of the banquet tastes it, he is surprised because the wine is of very high quality.
This is described as Jesus' first miracle.

Main message:
The story shows Jesus' power and generosity, and it reveals his ability to transform ordinary things into something special.



The story of **Jesus Healing a Paralysed Man** is found in the Gospels (e.g., Mark 2:1–12).
Jesus is teaching in a crowded house when four men bring a paralysed man to him. Because they cannot get through the crowd, they make a hole in the roof and lower the man down on his mat in front of Jesus.
Seeing their faith, Jesus first tells the man, "Your sins are forgiven." Some religious leaders question this, thinking only God can forgive sins. To show his authority, Jesus then says to the man, "Get up, take your mat and go home." Immediately, the man stands up and walks away, amazing everyone.

Main message:
The story shows Jesus' power to forgive sins and heal people, and it highlights the importance of faith and determination.



Beliefs & teachings: Islam

Key Beliefs

- There is only ONE God (monotheism). The 'oneness' of God is called Tawhid in Arabic
- Muslims call God Allah, which means 'the one true God'
- God cannot be divided and has never had a Son.
- In the Qur'an and the Sunnah, Allah has 99 'names'.E.g. the Merciful, the Just, the Almighty...
- Allah is the same God that Jews and Christians worship
- Allah has revealed his will through his prophets
- Muslims share many of the beliefs that Jews and Christians have about God E.g. He is the creator, eternal, omnipotent, omniscient, etc.
- Allah must never be pictured
- Allah is beyond understanding and nothing must ever be compared to Allah. Comparing things to Allah is a terrible sin
- All humans must 'submit' to the will of Allah (Islam means 'submission'

Surah 112

In the name of God, the Gracious, the Merciful.
1. Say, "He is God, the One.
2. God, the Absolute.
3. He begets not, nor was He begotten.
4. And there is none comparable to Him."



Sects of Islam

Sunni Muslims believed that the successor of Muhummad should be elected as God is guiding everyone.
The first Successor was Abu Bakr - Muhammads close friend

6 Articles of faith
1. Tawhid
2. Prophets
3. Holy books
4. Angels
5. Day of judgment
6. Predestination (Al Qadar)



Sunni Muslims believe the successor of Muhammad should go to Muhammads blood line,

5 roots of Usul-ad-Din
1. Tawhid
2. Prophets
3. Divine Justice (Adalat)
4. Imamate
5. Resurrection



Angels

Definition: Angels are spiritual beings created by Allah from light.
They are **invisible**, **immortal**, and **have no free will** (they always obey Allah).

Important Angels:
- Jibril (Gabriel): Delivers Allah's revelations (e.g. gave the Qur'an to Muhammad).
- Mika'il (Michael): Provides natural resources like rain.
- Israfil: Will blow the trumpet on the Day of Judgement.
- Izra'il: The Angel of Death, takes souls at death.

Role in Judgement and Afterlife:
- Two angels (Rakib and Atid) record each person's deeds.
- Other angels question the soul in the grave.
- Angels help determine a person's **afterlife (Heaven or Hell)**.

Importance for Muslims:
- Reminds Muslims that **Allah is always aware of their actions**.
- Encourages them to **behave well** and follow Islamic teachings.
- Strengthens belief in the afterlife and judgement.



Predestination (Al-Qadr)

Definition: The belief that **Allah has knowledge and control over everything that happens**, including human actions and events.

Key Beliefs:
- Allah is **all-powerful (omnipotent)** and **all-knowing (omniscient)**.
- Everything that happens is part of **Allah's divine plan**.
- Nothing occurs without **Allah's will**.

Different Interpretations:
Sunni view:
- Believe in **predestination**, but also that humans have **free will** to choose their actions.
- Humans are **responsible** for their choices and will be judged.

Shi'a view:
- Emphasise **human freedom** more strongly.
- Believe Allah knows what will happen but **does not force people's choices**.



Heaven and Hell

- Described in different ways by different Muslims
- People go to heaven or hell for eternity after the Day of Judgement
- Heaven described in th eQur'an as a garden paradise
- Hell described in the Qur'an as a place of fire and pain
- Faithful and righteous Muslims will go to heaven
- Non-Muslims and unrighteous Muslims will go to hell




The day of judgment

- When all humans will be judged by Allah based on how they have lived
- Judgement will lead to punishment (hell) or reward (heaven)
- Preceded by a state of waiting in the grave called barzakh
- While in the grave, people are questioned by Angels
- People will be resurrected before their judgement



Risalah (Prophets)

Adam
- Created specially by Allah.
- Given dominion over the earth by Allah
- The first human to communicate with Allah
- Given knowlegde and responsibility to teach humans how to live.
- The first Muslim

Ibrahim (Abraham)
- **Rejected idol worship** in a polytheistic society.
- Was willing to **sacrifice his son** in obedience to Allah.
- Helped build (or rebuild) the **Ka'aba** with his son Isma'il.
- Model of **faith and submission to Allah**.
- Linked to **Hajj** and **Eid ul-Adha**

Muhammad
- The **final prophet** ("Seal of the Prophets").
- Received the **Qur'an through Angel Jibril**.
- His life and teachings are recorded in the **Hadith and Sunnah**.
- Brings the **final and complete message of Islam**.
- His life is the **perfect example** for Muslims to follow.
- Foundation for **Islamic law and practice**.



holy books

- **Qur'an** – the **final and most important book**, revealed to Muhammad through Jibril.
- **Tawrat (Torah)** – given to Musa (Moses).
- **Zabur (Psalms)** – given to Dawud (David).
- **Injil (Gospel)** – given to Isa (Jesus).
- **Suhuf (Scrolls of Abraham)** – given to Ibrahim



All holy books originally taught the same message of monotheism (Tawhid).
Earlier books have been changed or corrupted over time.
The Qur'an is unchanged and complete, so it is the ultimate authority.

The Hadiths are the record of what Muhammad said and did – they are important sources of authority but not holy books as they did not come from Allah

Key words	Adalat – Justice – in Shia Islam	Imamate – Leadership of Shi'a Islam
Immanent – Within Space and time Transcendent – outside of space and time Tawhid – the oneness of God Adalat – Justice Al Qadr – Predestination Akhira – life after death Merciful – forgiving	**Definition:** Adalat means Allah is perfectly just and fair. It is one of the Five Roots of Usul ad-Din (Shi'a Islam).  **Key ideas:** • Allah always judges people fairly → no one is treated unjustly • Humans have free will, so they are responsible for their actions • Good is rewarded (Jannah) and evil is punished (Jahannam) • Suffering exists because it is part of a test, not because Allah is unfair	**Definition:** The Imamate is the belief that after Muhammad, leaders (Imams) should come from his family (descendants of Ali).  **Key ideas:** • Imams are chosen by Allah, not elected • They act as guides and protect the true message of Islam - they can interpret the Quran • They have special knowledge and authority • The first Imam was Ali (Muhammad's cousin and son-in-law) • Some believe the last is in hiding and will return with Isa on the day of judgment.

Key teachings

The First Revelation (Muhammad in the Cave of Hira)

- Muhammad was meditating in a cave when the angel **Jibril appeared**.
- He commanded him to **"Recite!"** and revealed the first words of the **Qur'an**

Key teachings:

- Allah **communicates through angels → links to Angels + Holy Books**
- Begins the **Qur'an → authority and guidance**
- Shows Muhammad as a **prophet (Risalah)**

Use this for:

- Angels (Jibril)
- Holy Books (Qur'an)
- Prophethood
- Nature of Allah (communicates with humans)



Ibrahim's Sacrifice

- Allah tested Ibrahim by asking him to **sacrifice his son (Isma'il)**.
- Ibrahim showed **complete obedience**, and Allah replaced the son with a ram.

Key teachings:

- Shows **total submission to Allah's will**
- Demonstrates **faith and trust in Allah (Tawhid)**
- Links to **Eid ul-Adha and Hajj**

Use this for:

- Predestination (Allah's will)
- Nature of Allah (tests believers)
- Prophethood
- Key practices (Hajj, Eid)



Adam and the Fall

- Adam and Hawwa (Eve) were placed in Paradise but **disobeyed Allah**.
- They were forgiven but sent to Earth as **khalifah (caretakers)**.

Key teachings:

- Humans have **free will and responsibility**
- Allah is **merciful (forgives)**
- Humans are tested in life → links to **afterlife and judgement**

Use this for:

- Predestination vs free will
- Nature of Allah (merciful, just)
- Life after death / judgement
- Prophethood (Adam as first prophet)



The Battle of Badr

- The Muslims (about **313**) faced a much larger army (around **1,000 Quraysh**).
- Before the battle, **Allah revealed to Muhammad that they would be given victory**.
- Despite being outnumbered, the Muslims **won the battle with Allah's help**

Key teachings:

- **Victory comes from Allah**, not strength or numbers
- Shows **trust in Allah (tawhid and reliance)**
- Supports belief in **predestination (Allah controls outcomes)**
- Allah may **help believers (e.g. sending angels)**

Use this for:

- Predestination (Allah's will)
- Nature of Allah (all-powerful, supports believers)
- Angels (help in battle)
- Prophethood (Muhammad receives revelation)
- Strength of faith



- Most surahs (chapters) in the Qur'an begin with the phrase:
- **"Bismillah ir-Rahman ir-Rahim"**
- **Meaning:**
  "In the name of Allah, the Most Gracious, the Most Merciful."
  Key ideas
  Reminds Muslims of **Allah's mercy and compassion**
  Shows that all actions should begin **with Allah in mind**
  Links to the **nature of Allah** (merciful, compassionate)

Level 1/2 Hospitality and Catering Knowledge Organiser: Unit 1: 1.1.1 -
Types of Hospitality and catering provisions

Hospitality and catering providers
You must understand, be able to name, and explain the two different provisions in hospitality and catering.
Commercial: the business aims to **make profit** from the hospitality and catering provision that they provide.
Non-commercial: the service provider **doesn't aim** to make a profit from the service they provide.

Commercial (residential)

Commercial (residential): meaning the hospitality and catering provision aims to create a profit from the service they provide, but also offers accommodation.

For example:
- hotels, motels & hostels
- B&B, guest houses and Airbnb
- holiday parks, lodges, pods, and cabins
- campsites and caravan parks.

Non-commercial (residential)

Non-commercial (residential): the hospitality and catering provision offers accommodation but does not aim to make a profit from the service they provide.

For example:
- hospitals, hospices, and care homes
- armed forces
- prisons
- boarding schools, colleges, and university residences.

Commercial (non-residential)

Commercial (non-residential): catering establishments that aim to make a profit from their service, but no accommodation is provided.

For example:
- restaurants and bistros
- cafes, tea rooms and coffee shops
- takeaways
- fast food outlets
- public houses and bars
- airlines, cruise ships, long distance trains
- pop up restaurants
- food and drink provided by stadiums, concert halls and tourist attractions
- mobile food vans and street food trucks
- vending machines.

Non-commercial (non-residential)

Non-commercial (non-residential): catering establishments with no accommodation provided and don't aim to make a profit from their service.

For example:
- schools, colleges, and universities
- meals on wheels
- canteen in working establishments (subsidised)
- charity run food providers.



Level 1/2 Hospitality and Catering: Unit 1-1.1.1 -
Types of service in commercial and non-commercial provisions

Types of service in commercial and non-commercial provision
You need to be able to understand and know the different types of service within commercial and non-commercial provision. They are split into two main categories of food service and residential service.

Food service

The different types of food services in the catering sector are listed below. You should know the meaning of each one and be able to provide examples. For instance;

Table service
- Plate: the food is put on plates in the kitchen and served by waiting staff. Good portion control and food presentation consistent.
- Silver: a waiter will transfer food from a serving dish to the customer's plate using a silver spoon and fork at their table.
- Banquet: a range of foods suitable for large catered events such as weddings, parties, or award ceremonies.
- Family style: the food is placed on serving bowls on the customer's table for customers to share between them.
- Gueridon: is served from a trolley to the customer's table, the food is then cooked and/or finished and presented in front of the customer. Creates an atmosphere of sophistication and entertainment.

Counter service
- Cafeteria: all types of food and drink are shown on a long counter for customers to move along with a tray for them to choose what they want to eat.
- Fast food: the food and drink is displayed on a menu behind the counter, often with pictures. Quick, simple, and usually served with disposable packaging.
- Buffet: a range of foods served on a big serving table where customers walk up to collect their plate and help themselves to food and drink. The food can be hot or cold, and some items could be served by waiting staff.

Personal service
- Tray or trolley: the meals are served on trays from a trolley and customers sometimes order items in advance.
- Home delivery: the customer's order is made over the phone or online, and is then delivered by the business to their address.
- Takeaway: food that's cooked by the business onsite and then eaten elsewhere.

Residential service

Listed below are the different types of residential types of service in the hospitality and catering sector. You should know the different types of service offered in various hospitality provisions.

Rooms:
- single/ double/ king/ family
- suite (en-suite bath/ shower room, shared facilities).

Refreshments:
- breakfast/ lunch/ evening meal
- 24-hour room service/ restaurant available.

Leisure facilities:
- spa
- gym
- swimming pool.

Conference and function facilities:
- large rooms
- overhead projector and computer
- pens and paper provided
- refreshments available.







Level 1/2 Hospitality and Catering: Unit 1-1.1.1 - Standards and ratings

Standards and ratings: You will need to be able to know the importance of standards and ratings within the hospitality and catering industry, they are hotel and guest house standards, and restaurant standards.

Hotel and guest house standards

Hotels and guest houses standards are awarded and given star ratings. You should know what criteria is needed to be met for an establishment to receive each star rating.

Star rating 1 = Basic and acceptable accommodation and facilities. Simple rooms with no room service offered.

Star rating 2 = Average accommodation and facilities, a small establishment, and would not offer room service or have a restaurant.

Star rating 3 = Good accommodation and facilities. One restaurant in the establishment, room service available between certain hours, and Wi-Fi in selected areas are provided. The establishment could have a pool and gym.

Star rating 4 = Very good accommodation and facilities. Large hotel & reception area of a very good standard. Certain hours of room service, with a swimming pool and valet parking offered.

Star rating 5 = Excellent standard of accommodation, facilities, and cuisine. Offer valet parking, 24 hr room service, spa, swimming pool, gym, and concierge service.

Restaurant standards

Restaurant standards have three main possible awards or ratings that you should know. They are listed below:

AA Rosette award

Ratings between one and five rosettes could be awarded based on the following:

- different types and variety of foods offered
- quality of the ingredients used
- where the ingredients are sourced
- how the food is cooked, presented and tastes
- skill level and techniques used as well as the creativity of the chef.

https://www.stirkhouse.co.uk/about-us/awards/attachment/award-rosette

Michelin star

A rating between one and three Michelin stars could be awarded based on the following:

- quality of ingredients used
- cooking and presentation techniques
- taste of the dishes
- standard of the cuisine
- value for money.



https://guide.michelin.com/us/en/california/to-the-stars-and-beyond

Good food guide

A rating between one and 10 could be awarded based on the following:

- cooking skills
- quality of ingredients
- techninques and cooking skills shown.

Level 1/2 Hospitality and Catering: Unit 1-1.1.2 -
Types of employment roles and responsibilities within the industry

Types of employment roles and responsibilities within the industry
There are four main areas within the industry that you should know the roles and responsibilities within. They are listed below:

Front of house

- Front of house manager: oversees all staff at the restaurant, provides training, hiring of staff, and ensures good customer service.
- Head waiter: oversees the waiting staff of the restaurant in high-end eating establishments.
- Waiting staff: greets customers, shows them their table, takes food and drink orders from customers, and serves them their order. Makes sure customers' needs are met, and that the food order is made correctly.
- Concierge: advises and helps customers with trips and tourist attractions. Books taxis for customers and parks customer cars.
- Receptionist: takes bookings, deals with questions and complaints from customers, checks-in customers, takes payment, and provides room keys.
- Maître d'hôte: oversees the service of food and drinks to customers. They greet customers, check bookings, reservations, and supervise waiting staff.

Kitchen brigade

- Executive chef: in charge or the whole kitchen, developing menus and overlooking the rest of the staff.
- Sous-Chef: the deputy in the kitchen and is in charge when the executive chef isn't available.
- Chef de partie: in charge of a specific area in the kitchen.
- Commis chef: learning different skills in all areas of the kitchen. Helps every chef in the kitchen.
- Pastry chef: prepares all desserts, pastry dishes and bakes.
- Kitchen assistant: helps with the peeling, chopping, washing, cutting of ingredients, and helps washing dishes and stored correctly.
- Apprentice: an individual in training in the kitchen and helps a chef prepare and cook dishes.
- Kitchen porter/ plongeur: washes the dishes and other cleaning duties.

Housekeeping

- Chambermaid: cleans guests' rooms when they leave, and restocks products that have been used, they also provide new bedding and towels.
- Cleaner: cleans hallways and the public areas of the establishment.
- Maintenance: repairs and maintains the establishment's machines and equipment, such as heating and air conditioning. These responsibilities could also include painting, flooring repair or electrical repair.
- Caretaker: carries out the day to day maintenance of the establishment.



Management

- Food and beverage: responsible for the provision of food and drink in the establishment which will include breakfast, lunch, dinner, and conferences.
- Housekeeping: ensuring laundering of bed linen & towels, ordering of cleaning products and overseeing housekeeping staff duties.
- Marketing: promotes events and offers to increase custom at the establishment, and is responsible for the revenue of the business.



Level 1/2 Hospitality and Catering: Unit 2-2.1.1 -
Understanding the importance of nutrition

The importance of nutrition

Listed below are the macro-nutrients and micro-nutrients. You need to know their function in the body and know examples of food items for each. You need to know why they are needed in the diet and why there is a need for a balanced/varied diet.

Macro-nutrients

Carbohydrates - Carbohydrates are mainly used in the body for energy. There are two types of carbohydrates which are:

- **Starch** - Examples include bread, pasta, rice, potatoes and cereals.
- **Sugar** - Examples include sweets, cakes, biscuits & fizzy drinks.

Fat - This is needed to insulate the body, for energy, to protect bones and arteries from physical damage and provides fat soluble vitamins. There are two main types of fat which are:

- **Saturated fat** - Examples include butter, lard, meat and cheese.
- **Unsaturated fat** - Examples include avocados, plant oils such as sunflower oil, seeds and oily fish.

Protein - Protein is mainly used for growth and repair in the body and cell maintenance. There are two types of protein which are:

- **High biological value (HBV) protein** - Includes meat, fish, poultry, eggs, milk, cheese, yogurt, soya and quinoa.
- **Low biological value (LBV) protein** - Includes cereals, nuts, seeds and pulses.

Micro-nutrients

Vitamins

- **Fat soluble vitamin A** - Main functions include keeping the skin healthy, helps vision in weak light and helps children grow. Examples include leafy vegetables, eggs, oily fish and orange/yellow fruits.
- **Fat soluble vitamin D** - The main function of this micro-nutrient is to help the body absorb calcium during digestion. Examples include eggs, oily fish, fortified cereals and margarine.
- **Water soluble vitamin B group** - Helps absorbs minerals in the body, release energy from nutrients and helps to create red blood cells. Examples include wholegrain foods, milk and eggs.
- **Water soluble vitamin C** - Helps absorb iron in the body during digestion, supports the immune system and helps support connective tissue in the body which bind cells in the body together. Examples include citrus fruits, kiwi fruit, cabbage, broccoli, potatoes and liver.

Minerals

- **Calcium** - Needed for strengthening teeth and bones. Examples include dairy products, soya and green leafy vegetables.
- **Iron** - To make haemoglobin in red blood cells to carry oxygen around the body. Examples include nuts, beans, red meat and green leafy vegetables.
- **Sodium** - Controls how much water is in the body and helps with the function of nerves and muscles. Examples include salt, processed foods and cured meats.
- **Potassium** - Helps the heart muscle to work correctly and regulates the balance of fluid in the body. Examples include bananas, broccoli, parsnips, beans, nuts and fish.
- **Magnesium** - Helps convert food into energy. Examples include wholemeal bread, nuts and spinach.
- **Dietary fibre (NSP)** - Helps digestion and prevents constipation. Examples include wholegrain foods (wholemeal pasta, bread and cereals), brown rice, lentils, beans and pulses.
- **Water** - Helps control temperature of the body, helps get rid of waste products from the body and prevents dehydration. Foods that contain water naturally include fruits and vegetables, milk and eggs.

GCSE Computer Science Year 10, Autumn Term Knowledge Organiser

Unit 1: Python & Programming Fundamentals (OCR J277 – 2.2 Programming Fundamentals)

Core Idea: Python programs are made up of instructions executed in sequence. Programmers use variables, input/output, operators, selection and data structures to solve problems.

Sequence & Syntax
• Sequence: The order instructions are executed.
• Syntax: The rules of Python. Incorrect syntax causes a syntax error.
Example: name = input("Name: "); print(name)

2. Variables & Assignment
• Variable: Named storage location for data.
• Assignment: Giving a value using =.
• Re-assignment: Changing an existing value.
• Constant: Value that should not change.
Example: score = 10 → score = 15

3. Input & Output
• Input: input()
• Output: print()

4. Data Types
• int = whole number (25)
• float = decimal number (3.14)
• str = text ("Python")
• bool = True or False
• Python stores single characters as strings.

5. Casting (Type Conversion)
• int("16")
• float("2.99")
• str(100)

6. Arithmetic Operators
+ Add - Subtract * Multiply / Divide
// Integer division % Modulus (remainder) ** Power

7. Relational Operators
== Equal to != Not equal to
> Greater than < Less than
>= Greater than or equal to <= Less than or equal to
Results are True or False.

8. Selection
if / elif / else statements change the path of a program.
Example: if score >= 50: print("Pass")

9. Boolean Logic
• AND = both conditions true
• OR = at least one true
• NOT = reverses a condition

10. Lists
• Store multiple values in one variable.
• Indexing starts at 0.
Example: colours = ["Red", "Blue", "Green"]
Access: colours[1] gives Blue.

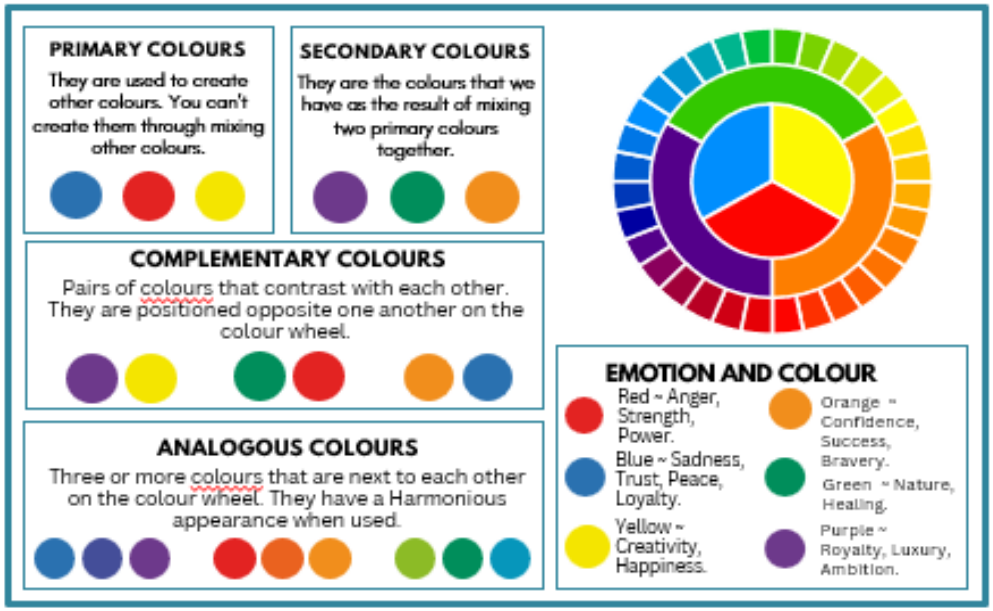
11. 2D Lists
• Lists containing other lists (rows and columns).
Example: grid = [[1,2,3],[4,5,6]]
Access: grid[1][2] gives 6.

EXAM ESSENTIALS
✓ Use input() for input and print() for output.
✓ Know int, float, str and bool.
✓ Understand casting and operators.
✓ Use if/elif/else for selection.
✓ Apply AND, OR and NOT.
✓ Remember list indexing starts at 0.

Art: Annotations

Checklist

What have you done? what techniques or materials have you used?
Why did you do this? what are you trying to achieve?
Do you think this was successful?
Do you think this Is unsuccessful? If so, why and what could you change or do differently?
What have you learnt from this? how can this Inform your next piece of work?
How would the work be different If you used different media?
How does this relate to the artist/ theme/Brief?



Sentence Starters

This is an observational drawing that I created of a ...
This is a series of photographs I took ...
This is a response to the artist ...
I looked at the artist's use of ...

I drew this using ...
I painted this image with ... I looked carefully at ...
I constructed this from ...
I built layers by using collage materials like ...
I drew directly from life the ... observing the ...

I have learnt about ...
By doing this experiment I have learnt ...
I began by ...
I have discovered ...
I improved my skills in ...
I feel more confident about ...
To build upon this idea I will ...
Next time I will try ...
In my opinion ...
I like how I have edited this image because ...

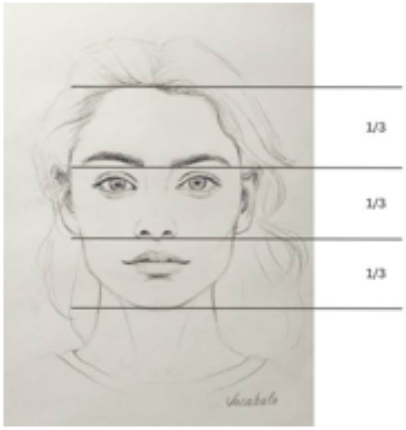
Final Checklist

- Used full sentences?
- Fully described the photograph?
- Said **HOW** and **WHY** you have created/ chose the image?
- Used Key Vocabulary?

Art: Portraiture

Drawing the proportions of the face comes down to a few standard rules of alignment and spacing. By mastering these foundational landmarks, you can build a proportionally accurate head before adding your own stylistic details.

The face can generally be broken into equal thirds, or "zones".

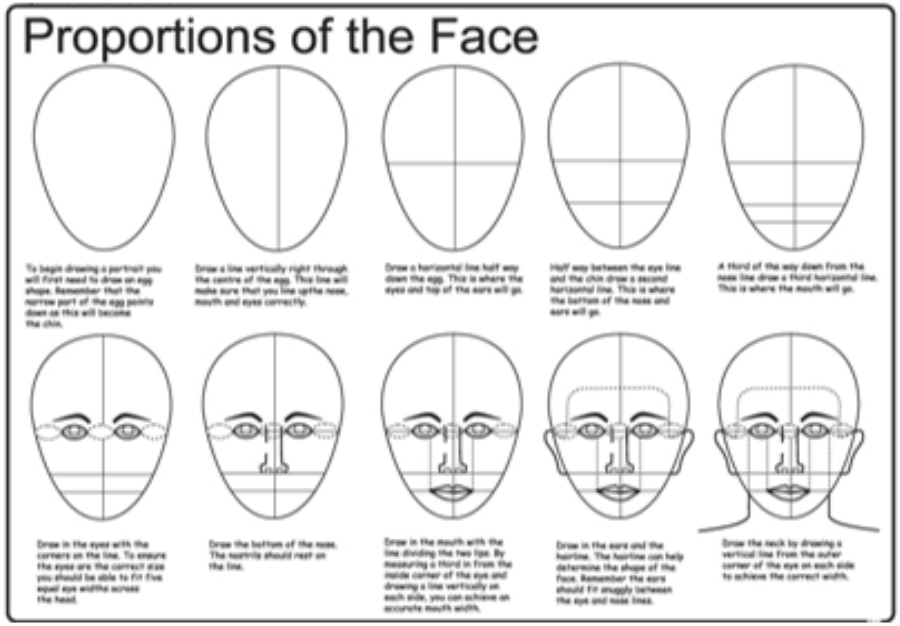


Horizontal Proportions

Eye Level: The eyes are located exactly halfway down the entire height of the head.
Zone 1: The top third goes from the hairline to the eyebrows.
Zone 2: The middle third goes from the eyebrows to the bottom of the nose.
Zone 3: The bottom third goes from the bottom of the nose to the bottom of the chin.
The Mouth: The mouth is located in the top third of that bottom zone—about one-third of the distance between the nose and the chin.

Vertical Proportions

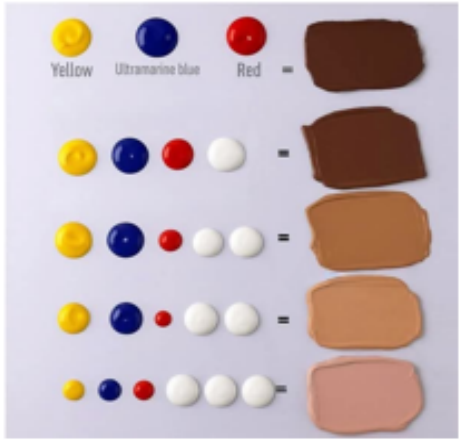
These alignment rules help ensure your features are correctly spaced.
Eye Spacing: The human face is about five "eyes" wide. The distance between your two eyes is equal to the width of one eye.
Nose Width: Draw straight lines down from the inner corners (tear ducts) of the eyes. These lines will perfectly align with the outer edges of the nostrils.
Mouth Width: If you draw a straight line down from the centre of each eye (the pupil), these will line up directly with the outer corners of your mouth.
The Ears: The top of the ear aligns with the eyebrow level, while the bottom of the earlobe aligns with the bottom of the nose



Mixing realistic skin tones

To get a realistic skin colour by mixing paint or colours, start by creating a foundation base using Red, Yellow, Blue, and White. Then adjust the value by adding more white for lighter shades, or deeper blues/browns for darker complexions, while balancing the warmth and coolness of the colour.

Control the Pinkness: It is a common mistake to make skin too pink. Skin tones are predominantly yellow. If your mix looks too pink or red, neutralize it by adding a touch of Yellow.
Add Depth with Blue: Add a tiny amount of Blue to your mixture. Because blue is the opposite of orange on the colour wheel, it naturally neutralizes and desaturates the paint, resulting in a much more organic and realistic skin tone.



Art: Artist Annotations

ANALYSING GRAPHC ARTIST WORK	ANALYSIS SENTENCE STARTERS	FORMAL ELEMENTS	PROVIDING EXAMPLES
Answer these questions to describe one image in detail.	**You could use any of these to begin describing.**	**Use these points in your descriptions.**	**Add more information by using these.**
What do you see? What materials have been used? What is the composition? Why have they used this composition? Do they use line, pattern, texture, tone, flat colour? How do they use this? What colours have been used? Why have they used these colours? How does this work link to your own work: ie use of colours, patterns, subject matter, objects used, composition? How will you use their ideas in your own work?	My first impressions of this piece are ... This artwork is about ... In this piece I can see ... I think the artist chose to use this media because ... I think the artist used... to show... The element of this image I find interesting is the artist's use of ... This piece makes me feel... I like ... I could use ... within my own work by ...	*Shape* Area enclosed by lines. Shapes can be outlines or shaded in. *Form* Three-Dimensional shape. *Texture* Is it smooth, rough or bumpy? *Pattern* A design that is repeated *Line* Can be bold, delicate, organic, controlled, free, thick, thin or loose. *Colour* Primary, Secondary, Tertiary. complementary, analogous, value. Can be used to create emotion. *Tone* Refers to Light and Dark.	For example ... Such as ... Which can be seen ... One way this is shown is... I have used this in my own work by ... I developed this idea further by ... This is shown in my experiment where I ...
			CONNECTING POINTS
			Additionally Similarly Also However Although On the other hand Alternatively

P.E

Glossary of key terms for this unit:

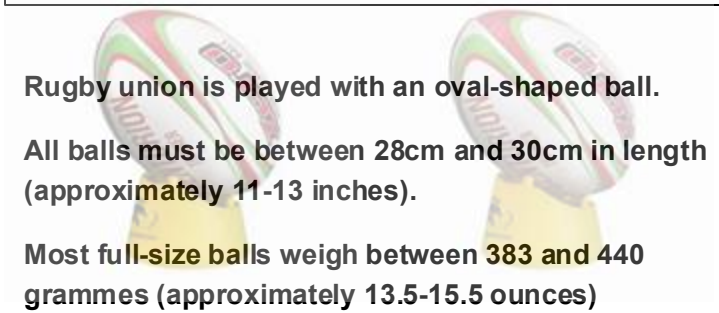
Grubber - a kick of the ball which causes the ball to bounce and roll along the ground.

Conversion kick: This kick is worth an additional two points. The conversion kick is taken from a spot in line with where the ball was originally grounded, so scoring as close to the posts as possible is best.

Penalty kick: Penalties for various infractions can be used to take a kick at goal, which is worth three points.

Drop goal: A dropped goal, which occurs when the player drops the ball on the ground and then kicks it just as it bounces, is worth three points if it goes through the uprights.

Lifting - the act of lifting the lineout jumper into the air in order to more easily catch or intercept the throw.



Rugby union is played with an oval-shaped ball.

All balls must be between 28cm and 30cm in length (approximately 11-13 inches).

Most full-size balls weigh between 383 and 440 grammes (approximately 13.5-15.5 ounces)

Rugby Year 10

Fitness can be broken down into different components or parts.

Components of Fitness:

Body Composition - The percentage of body weight which is fat, muscle and bone
Aerobic Endurance - The ability of the heart, lungs and blood to transport oxygen
Speed - The ability to put body parts into motion quickly
Flexibility - The range of motion (ROM) at a joint
Muscular Endurance - The ability to use voluntary muscles repeatedly without tiring
Muscular Strength - The amount of force a muscle can exert against a resistance

Agility - The ability to change the position of the body quickly and control the movement
Balance - The ability to maintain the body's centre of mass above the base of support
Coordination - The ability to use two or more body parts together
Power - The ability to perform strength performances quickly
Reaction Time - The time taken to respond to a stimulus

Within rugby you will require different proportions of each component of fitness depending on the position you play and the skills you are performing. A prop may require a different combination or proportion of the components of fitness than a winger. Therefore, training methods may differ for these players.



Name 3 components of fitness and give an example in the game when that component is required.

1)

2)

3)

Explain the technique of performing two types of kick in rugby. Use diagrams to help your explanation.

1.

2.

Knowledge Organiser: Year 10 Rugby

Identify and explain, using rugby examples, what components of fitness are required to play as a….

1. Forward:

1. Back:

R185 | PERFORMANCE AND LEADERSHIP IN SPORTS ACTIVITIES

TOPIC AREA 3

Organising and planning a sports activity session

Organisation of a sports activity session

A session must be planned effectively in order for it to be a success. If the planning is thorough and detailed, the session is easier to follow and deliver.

Appropriate venue (location/size/weather)

The venue must have enough working space for the activity and for the number of people taking part. For example, a large 3G hall for multi-skills session with 30 primary ages students. You must also have a contingency plan for if the activity cannot take place outside.

Equipment (type/amount)

The type of equipment will depend on the activity and the participants e.g. Size 2 footballs for under 4s and 5s, Size 5 footballs for under 14s and above.

The amount will depend on what skills/techniques are being taught and how many participants their are. E.g. If practicing passing technique in football then 1 ball between 2 or 3 would be ideal.

Timing (appropriate/allowing for progression)

Allowing enough time for the participants to practice skills is important in order to improve. Not spending too much time on skills that they can already perform so they get bored is also important

Allowing skills/drills to progress will improve players as the drills will become more advanced or harder. For example in passing in basketball can be progressed by:



Supervision (Number of participants/size of group)

Different activities require different levels of supervision for example the CPSU require their 1 adult per 8 children (ages 9-12) and 1 adult per 10 children (ages 13-18).

The size of group depends of the the activity. You can have a large group of experienced with less supervision but a group a beginner swimmers would have more.

Contingency plan

This is a back up plan for anything that might need to change during a sporting activity. For example, if you have planned a cricket session outside but it is raining then having a back up (contingency) plan is important to have. You may choose to do coaching session indoors.

You may also need a back up plan if the participants are not responding or interested in the activities that you have planned.

Safety considerations

Risk assessment and corrective action

Risk assessment completed before an activity take place and are used to identify and eliminate risks where possible, protecting participants from harm. Risks include those posed by the **facilities** (goal posts in sports hall), the **equipment** used , the **clothing** and **footwear** worn (suitable trainers for the activity) and any **activity-specific risks** such as, boots and shin pads for football when on a 3G astroturf pitch.

Checking of equipment

All equipment and areas should be checked. For example, rugby tackle bags should be checked that they are in good working order before tackling.

Basic First aid & child protection

There should be somebody that is qualified in basic first at a sports activity session. This is to help given to a sick or injured person until full medical treatment is available.

It is also important for a leader to have an understand about protecting children. This is to ensure that children are safe from abuse and neglect

Emergency procedures

It is important to have emergency procedures in a session. For example, calling 999, if the equipment breaks and how to complete emergency action plans.

Objectives

Objectives

The group can be at different levels or experience so planning a session to meet the needs is important. An example objective is to improve your forehand serve in badminton. Activities may need to be adapted depending on the size, experience, number of participants, gender, age, facilities, equipment.

Introduction and conclusion of a session

The introduction should include a brief introduction from the leader, aims of the session and checking for any injuries.

A conclusion should be a brief summary of what has been learnt or develop throughout the session.

Basic warm-up and cool-down

Warm-ups should include a pulse raiser, stretching exercises and activity specific tasks.

Cool-downs should allow the pulse to decrease slowly and to include stretches.

Skills and technique development

Start with basic skills in basic practices, progress the drills to show more challenge, then incorporate some competition into the practices. These practices will also need have some simplifications for participants who are struggling.

Key Terms

- **Contingency plan** - a plan designed to take account of a possible future event or circumstance
- **Appropriate** - suitable or proper in the circumstances
- **Supervision** - the action of supervising someone or something
- **Experienced** - having gained knowledge or skill in a particular field over time
- **Risk assessment** - a systematic process of evaluating the potential risks that may be involved in a projected activity or undertaking
- **Procedures** - an established or official way of doing something
- **Objectives** - a thing aimed at or sought; a goal

10 KEY QUESTIONS

Organising and planning a sports activity session

1. What 3 things do you need to consider when booking a venue for your activity?
2. Give an example of equipment for a specific group of participants.
3. Why is it important to have the appropriate timings for your session?
4. Give an example of how to progress a specific skill/drill.
5. How many leaders/coaches are needed for ages 9-12?
6. What is a contingency plan? Give a specific example of a plan.
7. What things do you need to consider when completing a risk assessment?
8. Why is it important to have knowledge of basic first aid and child protection issues?
9. Can you give an example of an objective for a session?
10. What is involved in a warm up and cool down?

Extension Task(s):



Research all the various ratios on the CPSU website
https://thecpsu.org.uk/media/446034/supervising-childrens-sporting-activities.pdf

Health & Social Care

Component 1: Human Lifespan and Development Knowledge Organiser

Challenging texts



Scan the QR code for the specification document

Topic Content:

- You will study the areas of growth and development that contribute to the whole person considering PIES
- Will reflect on the factors that impact on everyone's life e.g. lifestyle culture etc.

Learning Objectives

A – Understand the different types of health and social care services and barriers to accessing them.
B – Understanding the skills, attributes and values required to give care.

LAA – Understand human growth and development across life stages and the factors that affect = it.

Main life stages

Age Group	Life stage	Developmental progress
0-2 years	Infancy	Still dependent on parents/carers but growing
3- 8 years	Early Childhood	Becoming increasingly independent, improving thought processes and learning how to develop friendships
8-18 years	Adolescence	Onset of puberty, growth spurts and emotional changes.
19-45 Years	Early Adulthood	Leaving home, making your own choices about family and career
46-65 years	Middle Adulthood	Having more time to travel, socialise and take up hobbies as any children may be leaving the home, beginning of menopause and ageing process.
65+ years	Later Adulthood	The ageing process continues which may affect memory and mobility.



P.I.E.S

P – Physical – how a body grows and changes and how their motor skills change
I – Intellectual - how people develop cognitive abilities (thinking skills) such as memory/recall and language.
E – Emotional - describes how people learn to cope with their feeling towards themselves and others
S – Social – describes how people form relationships and learn how to be independent.

Factors affecting growth and development

Inherited conditions – are as a result of genes that are passed from a parent/parents to their child.

Illness and disease – Chronic or serious illness during their lifetime that impacts their growth and development.

Mental ill health – It affects the way a person feels about themselves and how they interact with others.

Disability – Something that may limit an individual's ability to carry out some activities.

Sensory Impairment - Partial or complete loss of one of the sense e.g. sight, hearing, touch or taste.

Lifestyle – Choices people make about their lives e.g. Smoking, Alcohol consumption, substance misuse, exercise.

Emotional – Someone's feelings – emotions change depending on life experiences and decisions.

Social – Relationships with others supportive/unsupportive

Cultural – The religious/cultural and community groups people belong to.

Gender roles – roles and responsibilities determined by a person's gender

Environmental – Our surroundings and conditions which we live in, could be your home, community, air around us.

Economic – A person's employment situation and their financial resources.

Key terms –

Characteristics
Life stages
Growth
Classification
Development
- Physical
- Intellectual
- Emotional
- Social

Gross Motor Development
Fine Motor Development
Inherited conditions
Supportive
Unsupportive
Cultural factors
Gender Roles
Housing
Pollution
Life events
Expected events
Unexpected events
Informal support
Professional support
Voluntary Support
Multi-agency working
Multidisciplinary

Component 1: Human Lifespan and Development Knowledge Organiser

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A – Understand the different types of health and social care services and barriers to accessing them.

B – Understanding the skills, attributes and values required to give care.

Life events can be **expected:** you would expect this event to happen to you in your lifetime, or **unexpected:** you would **not** expect this event to happen to you in your lifetime. Unexpected life events are harder to adapt to because you do not expect them to happen.

Life circumstances

Like the other life events , life circumstances can be **expected** and **unexpected.**

Expected life circumstances include, leaving school, getting a job, moving out of parents house, moving home and retirement.



Unexpected life events would include, being excluded from education, periods of unemployment due to redundancy, loosing a job



Changes in living conditions and standards. In addition, due to life choices a person may find themselves imprisoned

You need to explain what support a person has, how the support works and how the support enables the person to adapt to the life event.

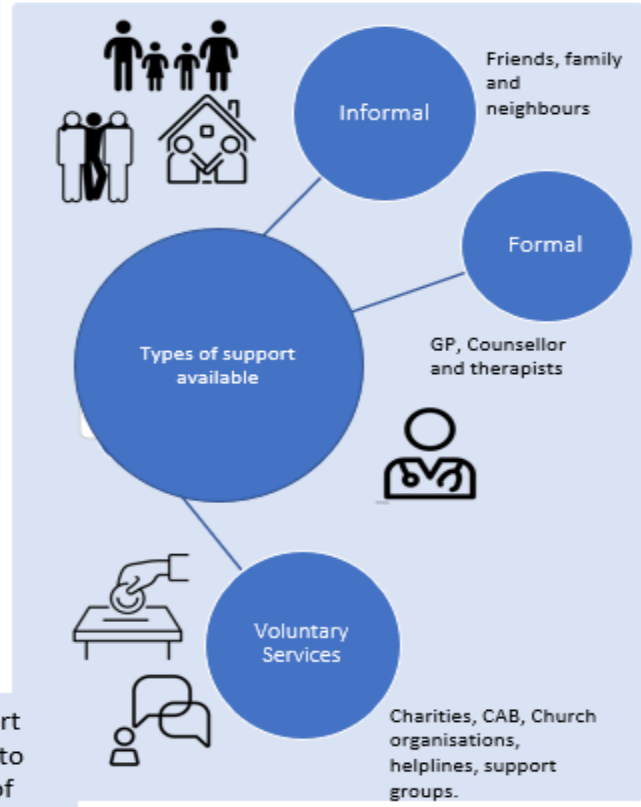
Support comes in three different types. Informal support is the everyday type of support a person would receive. Informal Support is **unpaid.**



Support can also be formal , people who provide formal support are paid for their service. Such services could be doctors, midwives speech therapists etc.



Voluntary Services offer support , free of charge, in many different forms, such as support groups help lines and advice groups. Voluntary groups rely on donations from the Government and the public.



Positive: The support an individual receives enables them to adapt to their new circumstances and the development of their PIES is not impacted in the long term.

This is because all four types of support are available, and the individuals confidence and self-esteem is maintained or even improved. The individual is well informed and can feel secure that they have a support network to help them during the adjustment period.

Negative: There is either a lack of support or ineffective support for the individual to access. This can lead to negative state of mind, anger, withdrawal or mental health issues. Ultimately the individual is unable to adapt both mentally and physically and the development of their PIES is impacted both in the short and long term.

You need to explain what support a person has, how the support works and how the support enables the person to adapt to the life event.

Ma vie en ligne (pages 8–9)

Qu'est-ce que tu fais en ligne?	*What do you do online?*
J'achète (des vêtements).	*I buy (clothes).*
Je cherche ...	*I search (for) ...*
J'écoute (de la musique avec mes **écouteurs**).	*I listen (to music on my headphones).*
J'envoie (des messages à mes **copains** et **copines**).	*I send (messages to my friends).*
Je joue (à) ...	*I play ...*
Je parle (avec mon ami).	*I speak (with my friend).*
Je partage (des photos).	*I share (photos).*
Je passe (beaucoup / trop de temps) ...	*I spend (a lot of / too much time) ...*
Je télécharge (des chansons).	*I download (songs).*
Je fais ça ...	*I do that ...*
de temps en temps.	*from time to time.*
parfois.	*sometimes.*
souvent / tous les jours.	*often / every day.*
tous les soirs / week-ends.	*every evening / weekend.*
tout le temps.	*all the time.*

C'est très / vraiment / trop ...	*It's very / really / too ...*
*affreux / amusant.	*awful / fun.*
dangereux / ennuyeux.	*dangerous / boring.*
*formidable / génial.	*terrific / great.*
cool / **inquiétant**.	*cool / worrying.*
mauvais pour la santé.	*unhealthy.*
nul / super.	*rubbish / great.*
une (très) bonne chose.	*a (very) good thing.*
cependant	*however*
mais	*but*
malgré cela	*in spite of that*
même si	*even if*
pourtant	*nonetheless*
toutefois	*(and) yet*
Il y a ...	*There is / are ...*
des applis pour tout.	*apps for everything.*
des risques de sécurité.	*security risks.*
des **vols** d'identité.	*identity theft.*

Qu'est-ce que tu regardes? (pages 12–13)

Qu'est-ce que tu aimes regarder?	*What do you like to watch?*
Quel type de vidéos est-ce que tu regardes / préfères regarder?	*Which type of videos do you watch / prefer watching?*
J'aime regarder ...	*I like to watch ...*
Je regarde ...	*I watch ...*
des *clips sur une chaîne de musique.	*clips on a music channel.*
des émissions de sport.	*sports programmes.*
des émissions de télé-réalité.	*reality TV programmes.*
des films de science-fiction.	*sci-fi films.*
des vidéos amusantes d'animaux.	*funny animal videos.*
des vidéos de cuisine / danse sur YouTube.	*cookery / dance videos on YouTube.*
un peu de tout.	*a bit of everything.*

Avec qui est-ce que tu aimes regarder des films?	*Who do you like to watch films with?*
avec les membres de ma famille	*with members of my family*
tout(e) seul(e) dans ma chambre	*alone in my bedroom*
Combien de fois par mois est-ce que tu vas au cinéma?	*How many times a month do you go to the cinema?*
Je vais au cinéma une ou deux fois par mois.	*I go to the cinema once or twice a month.*
Je ne vais pas souvent ...	*I don't often go ...*
Où et comment est-ce que tu préfères regarder des films?	*Where and how do you prefer watching films?*
Je préfère regarder ...	*I prefer watching ...*
chez moi ou en streaming.	*at home or streaming.*
au cinéma, sur un grand **écran**.	*at the cinema, on a big screen.*
un peu **partout**, sur mon portable.	*anywhere on my phone.*
Quand est-ce que tu regardes des vidéos?	*When do you watch videos?*
Je regarde ...	*I watch ...*
le matin, avant le collège.	*in the morning, before school.*
le soir, après les cours.	*in the evening, after school.*
quand j'ai du temps libre.	*when I have free time.*
La **séance** de huit heures.	*The eight o'clock screening.*
Trois billets, s'il vous plaît.	*Three tickets, please.*
Un adulte et deux enfants.	*One adult and two children.*
Le film finit à quelle heure?	*What time does the film finish?*
C'est combien?	*How much is it?*
Je voudrais voir / regarder ...	*I would like to see / watch ...*

French – My personal world

Fêtes et jeux (pages 6–7)

Les opinions	*Opinions*
À ton avis, c'est une bonne idée?	*In your opinion, is it a good idea?*
À mon avis, c'est ...	*In my opinion, it is ...*
amusant / ennuyeux.	*fun / boring.*
intéressant / nul.	*interesting / rubbish.*
une bonne / mauvaise idée.	*a good / bad idea.*
Tu es d'accord?	*Do you agree?*
Oui, je suis d'accord.	*Yes, I agree.*
Non, je ne suis pas d'accord.	*No, I don't agree.*
Est-ce que tu aimes ...?	*Do you like ...?*
J'adore / J'aime ...	*I love / I like ...*
Je n'aime pas ...	*I don't like ...*
Je déteste ...	*I hate ...*

Le sport	*Sport*
l'athlétisme	*athletics*
le basket	*basketball*
la danse	*dance*
le foot(ball)	*football*
le tennis de table	*table tennis*
faire de l'**athlétisme**	*doing athletics*
faire de la danse	*dancing*
faire du sport	*playing sport*
jouer au basket / foot(ball)	*playing basketball / football*

Qu'est-ce qu'on va faire? (pages 14–15)

aujourd'hui	*today*
demain	*tomorrow*
ce matin / demain matin	*this morning / tomorrow morning*
cet après-midi / demain après-midi	*this afternoon / tomorrow afternoon*
ce soir / demain soir	*this evening / tomorrow evening*
à ...	*at ...*
neuf heures	*nine o'clock*
neuf heures et demie	*half past nine*
dix heures moins vingt	*twenty to ten*
dix heures moins le quart	*quarter to ten*
midi / minuit	*midday / midnight*
Je vais ...	*I am going ...*
aller au parc / au marché.	*to go to the park / market.*
visiter le château / le musée.	*to visit the castle / museum.*
partir ...	*to leave ...*
voir un spectacle.	*to see a show.*
acheter un *tee-shirt.	*to buy a tee-shirt.*
prendre le bus.	*to take the bus.*
regarder un film en 3D.	*to watch a film in 3D.*
faire les magasins.	*to go shopping.*

Ça t'intéresse?	*Are you interested?*
Tu es libre?	*Are you free?*
Tu viens?	*Are you coming?*
D'accord, je veux bien.	*OK, I would like to.*
Oui, je suis libre.	*Yes, I'm free.*
Ça m'intéresse.	*I'm interested.*
Oui, merci, c'est gentil.	*Yes, thanks, that's kind of you.*
Non, désolé(e), je ne peux pas.	*No, sorry, I can't.*
Je ne suis pas libre.	*I'm not free.*

Tu as une vie active? (pages 10–11)

Qu'est-ce que tu fais?	*What do you do?*
Je suis / Je ne suis pas ...	*I am / I am not ...*
très / assez	*very / quite*
actif/active.	*active.*
sportif/sportive.	*sporty.*
Je joue ...	*I play ...*
au basket / foot(ball) / *rugby.	*basketball / football / rugby.*
du *piano / de la *guitare.	*the piano / the guitar.*
dans l'équipe du collège / un groupe de musique.	*in the school team / a music group.*
Je fais ...	
du vélo.	*I cycle.*
de la cuisine / de la natation.	*I cook / I go swimming.*
Je vais ...	*I go ...*
au centre sportif / théâtre.	*to the sports centre / theatre.*
à un concert.	*to a concert.*
à la piscine / plage.	*to the swimming pool / beach.*
avec mon/ma meilleur(e) ami(e)	*with my best friend*
ensemble	*together*
Je suis membre de l'équipe.	*I am a member of the team.*
J'ai un cours de musique.	*I have a music lesson.*
Nous avons bientôt un concert.	*We have a concert soon.*
Je lis un (bon) livre.	*I read a (good) book.*
d'habitude	*usually*
parfois	*sometimes*
normalement	*normally*
Je ne fais rien.	*I don't do anything.*
Je ne fais pas de ...	*I don't do ...*
Je ne fais jamais de ...	*I never do ...*

Qu'est-ce que tu as fait? (pages 16–17)

Qu'est-ce que tu as fait, le week-end dernier?	*What did you do last weekend?*
d'abord	*first of all*
ensuite	*next*
après	*after*
puis	*then*
plus tard	*later*
finalement	*finally*
J'ai / Nous avons ...	*I / We ...*
acheté (un *tee-shirt).	*bought (a tee-shirt).*
bu / mangé ...	*drank / ate ...*
chanté (des chansons).	*sang (songs).*
dansé / lu ...	*danced / read ...*
écouté (de la musique).	*listened (to music).*
fait de la natation.	*went swimming.*
joué (au tennis).	*played (tennis).*
passé (un week-end) ...	*spent (a weekend) ...*
pris ...	*took ...*
regardé (le concert).	*watched (the concert).*
vu (mon groupe préféré).	*saw (my favourite group).*
Je suis / Nous sommes ...	*I / We ...*
allé(e)(s)	*went*
resté(e)(s)	*stayed*
C'était ...	*It was ...*
assez / complètement / un peu	*quite / completely / a bit*
amusant / cher.	*fun / expensive.*
génial / sympa.	*great / nice.*
parfait / passionnant.	*perfect / exciting.*

Que fais-tu le week-end?	*What do you do at the weekend?*
Que fais-tu en famille?	*What do you do with your family?*
Dans ma famille, il y a (trois) personnes.	*In my family, there are (three) people.*
J'habite avec ...	*I live with ...*
Je **vis** avec ...	*I live with ...*
ma mère / belle-mère.	*my mother / step-mother.*
ma sœur / demi-soeur.	*my sister / step (half)-sister.*
ma tante.	*my aunt.*
mon père / beau-père.	*my father / step-father.*
mon frère.	*my brother.*
mes grands-parents.	*my grandparents.*
mon grand-père.	*my grandfather.*
jumeau/jumelle	*twin*
aîné(e)	*older*
petit(e)	*little / younger*
D'abord, le vendredi soir, ...	*First of all, on Friday evening ...*
Le samedi / dimanche ...	*On Saturday / Sunday ...*
matin	*morning*
après-midi	*afternoon*
soir	*evening*
à ... heures	*at ... o'clock*
(très) tard / tôt	*(very) late / early*
Après / Ensuite ...	*After / Next ...*
Puis ...	*Then ...*
Plus tard ...	*Later ...*
Je fais ...	*I do ...*
Je joue à des jeux.	*I play games.*
Je mange ...	*I eat ...*
Je m'amuse (bien).	*I have fun.*
Je me couche.	*I go to bed.*
Je **m'entraîne**.	*I train.*
Je m'habille.	*I get dressed.*
Je *me lave.	*I wash (myself).*
Je me lève.	*I get up.*
Je **m'occupe** de (mon jardin).	*I look after (my garden).*
Je me repose.	*I relax.*
Je travaille.	*I work.*
Je vais au lit.	*I go to bed.*
chez moi/**nous**	*at my/our house*
dans ma chambre	*in my bedroom*
dans le parc	*in the park*

L'amitié est la clé du bonheur (pages 36–37)	
Tu t'entends (toujours) bien avec tes amis?	*Do you (always) get on well with your friends?*
Pourquoi / Pourquoi pas?	*Why / Why not?*
La **plupart** du temps, je (ne) m'entends (pas) (assez / très) bien avec mes amis.	*Most of the time, I (don't) get on (quite / very) well with my friends.*
Il/Elle est ...	*He/She is ...*
Ils/Elles sont ...	*They are ...*
tout le temps	*always*
actif(s)/active(s).	*active.*
fidèle(s).	*loyal.*
fier(s)/fière(s) de moi.	*proud of me.*
*intelligent(e)(s).	*intelligent.*
indépendant(e)(s).	*independent.*
patient(e)(s).	*patient.*
*stupide(s).	*stupid.*
sympa.	*nice.*
travailleur(s)/travailleuse(s).	*hard-working.*
On **s'ennuie** / On s'amuse (bien) (ensemble) ...	*We are bored / We get on well (together) ...*
On *se dispute ...	*We argue ...*
On **s'excuse** ...	*We apologise ...*
rarement.	*rarely.*
de temps en temps.	*from time to time.*
toujours.	*always.*
d'habitude	*usually*
C'est quoi, **l'amitié** pour toi?	*What is friendship, for you?*
Pour moi, / À mon avis ...	*For me, / In my opinion, ...*
il est important d'avoir ...	*it is important to have ...*
un ami proche.	*a close friend .*
un groupe d'amis sympa.	*a group of nice friends.*
beaucoup d'amis amusants.	*lots of fun friends.*
Un bon ami est quelqu'un qui ...	*A good friend is someone who ...*
apprécie les mêmes choses que moi.	*appreciates the same things as me.*
partage quelques *intérêts avec moi, mais pas tous.	*shares some, but not all, interests with me.*
n'aime pas les mêmes activités que moi.	*doesn't like the same activities as me.*
J'ai **besoin** ...	*I need ...*
d'amis dans le monde réel.	*friends in the real world.*
de groupes d'amis **séparés**.	*separate groups of friends.*
de beaucoup d'amis en ligne.	*lots of friends online.*
Quand je suis triste, mon/ma meilleur(e) ami(e) ...	*When I'm sad, my best friend ...*
écoute mes problèmes.	*listens to my problems.*
offre de l'aide.	*offers help.*
me fait rire.	*makes me laugh.*

C'est *agaçant quand mes amis ...	*It's annoying when my friends ...*	sont en **colère**.	*are angry.*
ne sont pas là pour moi.	*are not there for me.*	sont trop sérieux.	*are too serious.*

Mon identité	*My identity*
Qu'est-ce qui fait ton identité?	*What defines your identity?*
Ce qui fait mon identité, c'est / ce sont ...	*What defines my identity is ...*
mes amis.	*my friends.*
*mon genre.	*my gender.*
ma langue.	*my language.*
ma personnalité.	*my personality.*
ma religion.	*my religion.*

l'amitié	*friendship*
la communauté	*community*
le courage	*courage*
*la démocratie	*democracy*
*l'inclusivité	*inclusivity*
la justice	*justice*
le respect	*respect*
*la tolérance	*tolerance*

KS4 Spanish Grammar

Present Tense

The present tense is used to describe what you're doing at the present moment in time, e.g: "I am eating breakfast" or what you do routinely, e.g: "I eat breakfast every day".

hablar *to speak*	**comer** *to eat*	**vivir** *to live*
habl-**o**	com-**o**	viv-**o**
habl-**as**	com-**es**	viv-**es**
habl-**a**	com-**e**	viv-**e**
habl-**amos**	com-**emos**	viv-**imos**
habl-**áis**	com-**éis**	viv-**ís**
habl-**an**	com-**en**	viv-**en**

Preterite Tense

The preterite is sometimes known as the simple past. It's used to talk about completed events in the past, e.g. I asked, I ate, I wrote. (TARDIS tense)

preguntar *to ask*	**comer** *to eat*	**escribir** *to write*
pregunt-**é**	com-**í**	escrib-**í**
pregunt-**aste**	com-**iste**	escrib-**iste**
pregunt-**ó**	com-**ió**	escrib-**ió**
pregunt-**amos**	com-**imos**	escrib-**imos**
pregunt-**ásteis**	com-**ísteis**	escrib-**ísteis**
pregunt-**aron**	com-**ieron**	escrib-**ieron**

Near Future Tense

The near future tense can be used to express what is going to happen in the future. E.g. I am going to work, I am going to study, I am going to drink, I am going to eat….

voy	a	trabajar	*I am going*
vas	a	*to work*	
va	a	estudiar	
vamos	a	beber	
vais	a	comer	
van	a	abrir	
		vivir	

Present Continuous Tense

The present continuous tense is used to indicate what is happening at the time of speaking/writing e.g. I am writing/I am talking. Estar + gerund

hablar *to speak*	**comer** *to eat*	**vivir** *to live*
estoy habl**ando**	**estoy** com**iendo**	**estoy** viv**iendo**
estás hablando	**estás** comiendo	**estás** viviendo
está hablando	**está** comiendo	**está** viviendo
estamos hablando	**estamos** comiendo	**estamos** viviendo
estáis hablando	**estáis** comiendo	**estáis** viviendo
están hablando	**están** comiendo	**están** viviendo

Imperfect Tense

The imperfect tense is used for things that 'used to happen' e.g.I worked, I used to work or for descriptions in the past e.g. the food was bad, the hotel was nice

trabajar *to work*	**comer** *to eat*	**escribir** *to write*
trabaj-**aba**	com-**ía**	escrib-**ía**
trabaj-**abas**	com-**ías**	escrib-**ías**
trabaj-**aba**	com-**ía**	escrib-**ía**
trabaj-**ábamos**	com-**íamos**	escrib-**íamos**
trabaj-**ábais**	com-**íais**	escrib-**íais**
trabaj-**aban**	com-**ían**	escrib-**ían**

Conditional Tense

The conditional is recognised in English by the use of the word "would" or sometimes "should", e.g. "I would swim".

nadar *to swim*	**beber** *to drink*	**abrir** *to open*
nadar-**ía**	beber-**ía**	abrir-**ía**
nadar-**ías**	beber-**ías**	abrir-**ías**
nadar-**ía**	beber-**ía**	abrir-**ía**
nadar-**íamos**	beber-**íamos**	abrir-**íamos**
nadar-**íais**	beber-**íais**	abrir-**íais**
nadar-**ían**	beber-**ían**	abrir-**ían**

How do you conjugate verbs in Spanish?

Most verbs in Spanish have **six** forms which correspond to their respective pronouns and which will be listed in the following order:

1) **yo** (I)

2) **tú** (you-familiar a person you know well, a familiar relationship)

3) **él/ella/usted** (he/she/you-formal a person you don't know, a formal relationship)

4) **nosotros/nosotras** (we)

5) **vosotros/vosotras** (you-plural-familiar [only used in Spain])

6) **ellos/ellas/ustedes** (they/you-plural-formal [Spain]/you-plural [L. America])

For most tenses you remove the verb ending (AR/ER/IR) and replace it with the correct new ending.

It's **essential** that you get the **correct ending** for the person you're talking about in Spanish because **pronouns don't tend to be used in Spanish.**

Nouns and Adjectives

Nouns can be either masculine or feminine and singular or plural.

	masculine	**feminine**
singular	el / un (the/a)	la / una (the/a)
plural	los / unos (the/some)	las / unas (the/some)

Feminine	**Masculine**
Nouns ending with: -a -ión -dad -tad Irregulars: la foto, la mano, la moto, la radio	Nouns ending with: -o -l -n -aje -e -r -or -ma -ta -pa

To figure out if a noun is masculine or feminine use this table:

Adjectives in Spanish must match the gender and number of the nouns they are describing. See below:

ENDING	MASCULINE SINGULAR	MASCULINE PLURAL	FEMININE SINGULAR	FEMININE PLURAL
O	pequeño	pequeños	pequeña	pequeñas
OTHER VOWELS	naranja	naranjas	←	←
	fuerte	fuertes	←	←
CONSONANTS	azul	azules	←	←
	marrón	marrones	←	←
	veloz	veloces	←	←

My personal world
Spanish

El mundo hispanohablante (pages 6–7):

La personalidad	*Personality*
Mi nombre es / Me llamo ...	*My name is / I am called ...*
Soy / Es una persona ...	*I am / He/She is a ... person.*
Soy como ...	*I am like ...*
Soy / Es ...	*I am / He/She is ...*
bueno/a	*good*
divertido/a	*funny, amusing*
interesante / **optimista**	*interesting / optimistic*
positivo/a / **práctico/a**	*positive / practical*
responsable / social	*responsible / social*
*tímido/a	*shy*
trabajador/a	*hard-working*
tranquilo/a	*calm, tranquil, relaxed*

¡Disfrutamos al máximo! (pages 10–11):

¿Qué actividades te gusta hacer?	*What activities do you like doing?*
(No) Me gusta (mucho) ...	*I (don't) (really) like ...*
(No) Me encanta ...	*I (don't) love ...*
(No) Me interesa (nada) ...	*I am (not) interested in ... (at all) ...*
Prefiero / Preferimos ...	*I prefer / We prefer ...*
escuchar música/mis canciones favoritas	*listening to music/my favourite songs*
estar en casa con mi familia	*being at home with my family*
hacer ciclismo / ir a conciertos	*going cycling / going to concerts*
jugar al fútbol/voleibol/tenis	*playing football/volleyball/tennis*
montar a caballo	*horse riding*
salir con mis amigos	*going out with my friends*
ver películas en mi portátil/móvil	*watching films on my laptop/mobile*
ver películas/una **comedia** en el cine	*watching films/a comedy in the cinema*
leer (libros/**novelas** de ...).	*reading (... books/novels).*
(No) Hago muchas actividades	*I (don't) do many activities*
porque es/son ...	*because it is/they are ...*
aburrido/a(s) / difícil(es)	*boring / difficult*
divertido/a(s)/ emocionante(s)	*fun / exciting*
fácil(es) / guay	*easy / cool*
relajante(s) / terrible(s)	*relaxing / terrible*

¿Qué deportes haces?	*What sports do you do?*
Juego al/a la ...	*I play ...*
Practico / Hago ...	*I practise / I do ...*
(el) atletismo	*athletics*
(el) baile / ciclismo / deporte	*dance / cycling / sport*
(el) fútbol / baloncesto / tenis	*football / basketball / tennis*
(la) natación	*swimming*
¿Qué te gusta hacer en tu tiempo libre?	*What do you like doing in your free time?*
¿Qué actividades haces en tu tiempo libre?	*What activities do you do in your free time?*
En mi tiempo libre ...	*In my free time ...*
Si tengo / tenemos tiempo, ...	*If I / we have time, ...*
Si tengo / tenemos dinero, ...	*If I / we have money, ...*
voy / vamos al/a la ...	*I / we go to the ...*
leo / veo / bailo / escucho...	*I read / watch / dance / listen to ...*
juego al/a la / hago ...	*I play / do ...*
porque me ayuda a ...	*because it helps me to ...*
estar en forma	*keep fit*
olvidarme de todo	*forget everything*
mantenerme en contacto con ...	*stay in touch with ...*
¿Eres miembro de algún club?	*Are you a member of a club?*
Soy miembro de un equipo (local).	*I am a member of a (home) team.*

Nos juntamos (pages 12–13):

¿Qué vas / vamos a hacer?	*What are you / we going to do?*
Este fin de semana / Primero	*This weekend / First*
Luego	*Later/afterwards*
*Por la mañana/tarde/noche	*In the morning/afternoon/evening*
Quiero / Queremos ...	*I / We want to ...*
Mis amigos/padres y yo vamos a ...	*My friends/parents and I are going to ...*
(No) Voy a ...	*I am (not) going to ...*
descansar / estar en casa	*rest / be at home*
hacer deporte/los deberes	*do sports/homework*
ir de compras	*go shopping*
ir al parque/cine/centro comercial	*go to the park/cinema/shopping centre*
ir a un restaurante	*go to a restaurant*
ir a la piscina	*go to the pool*
limpiar mi habitación	*clean my bedroom*
salir (por la tarde)	*go out (in the afternoon)*
tomar un café	*have a coffee*
mandar mensajes a mis amigos	*send messages to my friends*
hacer **tareas**	*do chores*
No puedo ...	*I can't ...*
porque tengo que ...	*because I have to ...*
hacer los deberes	*do my homework*
salir con mis padres/abuelos	*go out with my parents/grandparents*
trabajar / **cuidar** a mi perro	*work / look after my dog*
¿Tienes planes?	*Do you have (any) plans?*
(No) Tengo planes para ...	*I (don't) have plans for ...*
hoy / mañana	*today / tomorrow*
este fin de semana	*this weekend*
el viernes/sábado/domingo	*Friday/Saturday/Sunday*
la semana próxima/que viene	*next week*
Estoy libre. / No puedo ir.	*I am free. / I can't come.*
Lo siento. / ¡Claro que sí!	*I'm sorry. / Of course!*
No tengo dinero.	*I don't have (any) money.*
De acuerdo.	*OK.*
¿A qué hora quedamos?	*What time shall we meet?*
A las (diez) en (la *cafetería).	*At (ten o'clock) at (the café).*
¿Quedamos a las (cuatro)?	*Shall we meet at (four o'clock)?*

¡Un día fatal! (pages 16–17):

¿Qué pasó el fin de semana pasado?	*What happened last weekend?*
Tuve un día ...	*I had a(n) ... day*
difícil / *estresante / *fatal	*difficult / stressful / awful*
*horroroso / malo / terrible	*horrific / bad / terrible*
porque ...	*because ...*
comí ... / no comí (nada)	*I ate ... / I didn't eat (anything)*
llegué muy tarde	*I arrived very late*
no hice los deberes	*I didn't do my homework*
pasé todo el día enfrente de la televisión	*I spent all day in front of the television*
me caí	*I fell*
Fui/Fuimos a ...	*I/We went to ...*
un concierto / un partido	*a concert / a match*
ver una película de ...	*watch a ... film*
y ...	*and ...*
la voz del cantante fue terrible	*the singer's voice was terrible*
el grupo / la banda fue *horroroso/a	*the group / band were horrific*
mi equipo perdió	*my team lost*
el sonido no funcionó	*the sound didn't work*
Perdí ...	*I lost ...*
el móvil / al perro / a mis amigos	*my mobile / dog / friends*
Lo/La/Los/Las perdí en ...	*I lost it/them in/at ...*
Lo/La/Los/Las encontré en ...	*I found it/them in/at ...*
casa / la ciudad	*home / the city*
el coche / el tren	*the car / the train*
el estadio / el metro	*the stadium / the metro/ underground*
¿Qué vas a hacer el fin de semana próximo?	*What are you going to do next weekend?*
El fin de semana próximo	*Next weekend*
El sábado próximo	*Next Saturday*
La próxima vez	*Next time*
(no) voy a ...	*I am (not) going to ...*
ir al estadio	*go to the stadium*
ver otra película de terror	*watch another horror film*
viajar en ...	*travel by ...*

El fin de semana pasado (pages 14–15):

¿Qué hiciste ...?	*What did you do ...?*
El fin de semana pasado / Ayer	*Last weekend / Yesterday*
El sábado/domingo pasado	*Last Saturday/Sunday*
La semana pasada	*Last week*
El mes pasado	*Last month*
Hace ... días	*... days ago*
Hace una semana ...	*A week ago ...*
comí / bebí ...	*I ate / I drank ...*
compré una entrada para un partido de fútbol	*I bought a ticket to a football match*
escuché música	*I listened to music*
no hice mucho	*I didn't do much*
fui a un restaurante	*I went to a restaurant*
fui a un concierto	*I went to a concert*
gané una competición (de natación)	*I won a (swimming) competition*
me quedé en casa todo el día	*I stayed at home all day*
hablé con mi amigo en el parque	*I spoke to my friend at the park*
salí con mi amigo al centro comercial	*I went out to the shopping centre with my friend*
fui al **gimnasio** y *entrené	*I went to the gym and trained*
jugué a los *videojuegos	*I played videogames*
Mi familia y yo ...	*My family and I ...*
comimos en un restaurante (peruano)	*(we) ate at a (Peruvian) restaurant*
fuimos a la piscina	*(we) went to the pool*
salimos a comer	*(we) went out to eat*
¿Qué tal fue?	*How was it?*
¿Por qué (no) te gustó?	*Why did you (not) like it?*
Me gustó / Me encantó	*I like it / I loved it*
No me gustó (nada)	*I didn't like it (at all)*
porque fue ...	*because it was ...*
aburrido/a / emocionante	*boring / exciting*
fantástico/a / guay / terrible	*fantastic / cool / terrible*

¿Quién es mi familia?	*Who is my family?*
mi(s) / tu(s)	*my / your*
su(s)	*his/her/their*
nuestro/a(s) / vuestro/a(s)	*our / your*
el padre / el padrastro	*father / step-father*
la madre / la madrastra	*mother / step-mother*
el hermano / el hermanastro	*brother / step-brother*
la hermana / la hermanastra	*sister / step-sister*
el primo / la prima	*(male) cousin / (female) cousin*
los padres / los hermanos	*parents / siblings*
el hijo (único) / la hija (única)	*(only) son / (only) daughter*
el abuelo / la abuela	*grandfather / grandmother*
los abuelos / los gemelos	*grandparents / twins*
el tío / la tía	*uncle / aunt*
el bebé	*baby*
los miembros de la familia	*members of the family*

¿Cómo eres?	*What are you like?*
¿Qué es **lo** más importante para ti?	*What is the most import thing to you?*
Para mí, **lo** más importante es / son ...	*For me, the most important thing is ...*
mi familia / mi educación	*my family / my education*
mi cultura / mis derechos	*my culture / my rights*
mis amigos / **la amistad**	*my friends / friendship*
mi religión / mi **fe**	*my religión / my faith*
¿Qué cosas te interesan/ **preocupan**?	*What things interest/worry you?*
Las cosas que me interesan/ **preocupan** son ...	*The things that interest/worry me are ...*
el amor / la **paz** / el planeta	*love / peace / the planet*
la **justicia** / el futuro del mundo	*justice / the future of the world*
¿Cuáles son tus sueños?	*What are your dreams?*
Mi **objetivo**/sueño es ...	*My objective/dream is to ...*
En el futuro voy a ...	*In the future I am going to ...*
ser jefe/a (de una compañía)	*be a/the boss (of a company)*
ser rico/a / tener éxito	*be wealthy / be successful*
luchar por un mundo mejor	*fight for a better world*

¿Quién está en la foto?	*Who is in the photo?*
Aquí hay una foto de ...	*Here is a photo of ...*
¿Dónde están?	*Where are they?*
Está / Están ...	*He/She is / They are ...*
en el jardín	*in the garden*
en la sala	*in the living room*
en casa / en la cocina	*at home / in the kitchen*
en su habitación	*in his/her/their room*
al **fondo**	*in the background*
¿Qué están haciendo?	*What are they doing?*
Estoy / Estamos ...	*I am / We are ...*
Está / Están ...	*He/She is / They are ...*
bebiendo / chateando	*drinking / chatting*
cocinando / comiendo	*cooking / eating*
escuchando (música) / hablando	*listening (to music) / talking*
haciendo / jugando	*doing / playing*
leyendo / mandando (un mensaje)	*reading / sending (a message)*
*sacando (fotos) / sonriendo	*taking (photos) / smiling*
trabajando / viendo	*working / watching*
¿A quién te pareces?	*Who are you like?*
¿Cómo eres?	*What are you like?*
Soy / Es ...	*I am / He/She is ...*
(bastante) alto/a / bajo/a	*(quite) tall / short*
moreno/a	*dark-haired, tanned*
rubio/a	*blonde*
más alto/a que yo	*taller than me*
más bajo/a que él/ella	*shorter than him/her*
Somos / Son ...	*We are / They are ...*
bajos/as	*short*
pelirrojos/as	*redheads*
¿De qué color tienes los ojos?	*What colour are your eyes?*
¿Cómo tienes el pelo?	*What is your hair like?*
Tengo / Tenemos ...	*I have / We have ...*
Tiene(n) ...	*He/She has / They have ...*
el pelo ...	*... hair*
castaño / negro	*brown / black*
pelirrojo / rubio	*red / blonde*
largo / corto	*long / short*
los ojos ...	*... eyes*
azules / marrones / verdes	*blue / brown / green*
la misma nariz	*the same nose*
Llevo / Lleva gafas.	*I wear / He/She wears glasses.*
¿A quién **te pareces** de tu familia?	*Who are you like in your family?*
(No) **Me parezco** (nada) a ...	*I am (not at all) like ...*
(No) **Se parece** a ...	*He/She is (not) like ...*
nadie de mi/su familia	*anyone in my/his/her family*
mis dos hermanos	*my two siblings*

¿Qué puedo hacer?	*What can I do?*
Mi problema es que ...	*My problem is that ...*
me siento / estoy ...	*I feel / I am ...*
diferente / triste	*different / sad*
solo/a / muy mal	*alone/ very bad*
no **me relaciono** con nadie	*I don't interact with anyone*
ignora todos mis mensajes	*he/she ignores all my messages*
es muy negativo/a	*he/she is very negative*
me peleo mucho con él/ella	*I fight with him/her a lot*
se ríen de mí	*they laugh at me*
siempre me **critica**	*he/she is always criticising me*

¿Cómo es un buen amigo?	*What is a good friend like?*
¿Cómo te ayuda tu mejor amigo/a?	*How does your best friend help you?*
Mi mejor amigo/a ...	*My best friend ...*
Un buen amigo / Una buena amiga ...	*A good friend ...*
te comprende	*understands you*
te conoce bien	*knows you well*
te hace reír	*makes you laugh*
te respeta	*respects you*
me acepta como soy	*accepts me as I am*
te acepta como eres	*accepts you as you are*
te ayuda cuando tienes problemas	*helps you when you have problems*
te apoya en **lo** bueno y en **lo** malo	*supports you in the good and the bad*
te da buenos **consejos**	*gives you good advice*
no **te critica**	*does not criticise you*
es **fiel**	*is loyal*
puede **guardar** un *secreto	*can keep a secret*

¿Cómo es tu relación con tus amigos?	*What is your relationship with your friends like?*
¿Te llevas bien con tus amigos?	*Do you get on well with your friends?*
(No) Me llevo bien con ...	*I (don't) get on well with ...*
Me divierto mucho con ...	*I have lots of fun with ...*
Mi mejor amigo/a y yo ...	*My best friend and I ...*
Mis amigos/as y yo ...	*My friends and I ...*
nos llevamos *genial	*get on really well/great*
nos divertimos mucho juntos/as	*have lots of fun together*
porque ...	*because ...*
hacemos muchas cosas juntos/as	*we do lots of things together*
me hace(n) reír	*he/she/they make(s) me laugh*
me conoce(n) bien	*he/she/they know(s) me well*
puedo **confiar** en él/ella totalmente	*I can trust him/her totally*
siempre estamos juntos	*we are always together*
casi nunca **nos peleamos**	*we hardly ever fight*
puedo **contar** con él/ella/ellos/ellas (para todo)	*I can count on him/her/them (for everything)*
tenemos los mismos **intereses**	*we have the same interests*

Deberías ...	*You should ...*
Podrías ...	*You could ...*
Es importante/necesario ...	*It is important/necessary to ...*
limitar el tiempo en línea	*limit your time online*
organizar actividades	*organise activities*
apoyar a tu familia	*support your family*
buscar ayuda **profesional**	*seek professional help*
explicarles cómo **te sientes**	*explain to them how you feel*
expresar tus **sentimientos**	*express your feelings*
hablar con él/ella/ellos/ellas cara a cara	*speak to him/her/them face to face*
crear nuevas *rutinas	*create new routines*
Tienes que ser fuerte.	*You have to be strong.*

Media and Technology
Spanish

¿A quién sigues en las redes sociales?	*Who do you follow on social media?*
Sigo ...	*I follow ...*
a artistas / cantantes latinos	*artists / Latin singers*
canales de cocina/*videojuegos	*cooking/videogames channels*
*vlogs de ...	*... vlogs*
*rutinas / estilo de vida / moda	*routines / lifestyle / fashion*
¿**Desde hace** cuánto tiempo?	*For how long?*
Desde hace ...	*For ...*
un mes/año	*a month/year*
meses / (mucho) tiempo	*months / a long time*
¿Por qué te gusta?	*Why do you like it?*
Me gusta porque ...	*I like it because ...*
aprendo mucho	*I learn a lot*
quiero aprender más	*I want to learn more*
la música es mi vida	*music is my life*
los vídeos son divertidos/útiles/*virales	*the videos are fun/useful/viral*
soy aficionado/a	*I am a fan ...*
al deporte	*of sport*
a la música latina	*of Latin music*

¿A quién admiras?	*Who do you admire?*
*Admiro a ...	*I admire ...*
Lo/La sigo / *admiro porque ...	*I follow / admire him/her because ...*
apoya a otras personas	*he/she supports other people*
es un buen modelo de conducta	*he/she is a good role model*
es una *inspiración para otros	*he/she is an inspiration to others*
Lucha / Luchó por ...	*He/She fights/fought for ...*
los derechos de las personas transgénero	*transgender rights*
la igualdad de **oportunidades**	*equal opportunities*
Fue ...	*He/She was ...*
la primera persona en ... participar / ganar ...	*the first person to ... participate / win ...*
El año pasado / Hace dos años ...	*Last year / Two years ago ...*
participó en / ganó ...	*he/she participated in / won ...*

¿Qué piensas de las redes sociales?	*What do you think about social media?*
¿Qué es **lo** bueno/**lo** malo de las redes sociales?	*What is the good/bad thing about social media?*
Lo bueno/malo es que ...	*The good/bad thing is that ...*
causan *adicción/**presión**/*acoso	*it (social media) causes addiction/pressure/bullying*
causan problemas para dormir	*it (social media) causes sleeping problems*
son una gran *distracción	*it (social media) is a big distraction*
son buenas/útiles para ...	*it (social media) is good/useful for...*
compartir fotos/vídeos/ideas	*sharing photos/videos/ideas*
buscar información sobre ...	*searching for information about ...*
estar en contacto con tus amigos	*being in touch with your friends*
participar en la comunidad	*participating in the community*
expresarse	*expressing yourself*
chatear con ...	*chatting with ..*
escuchar / ver ...	*listening to / watching ...*

¿Cómo eres?	*What are you like?*
¿Qué es **lo** más importante para ti?	*What is the most import thing to you?*
Para mí, **lo** más importante es / son ...	*For me, the most important thing is ...*
mi familia / mi educación	*my family / my education*
mi cultura / mis derechos	*my culture / my rights*
mis amigos / **la amistad**	*my friends / friendship*
mi religión / mi **fe**	*my religión / my faith*
¿Qué cosas te interesan/**preocupan**?	*What things interest/worry you?*
Las cosas que me interesan/**preocupan** son ...	*The things that interest/worry me are ...*
el amor / la **paz** / el planeta	*love / peace / the planet*
la **justicia** / el futuro del mundo	*justice / the future of the world*
¿Cuáles son tus sueños?	*What are your dreams?*
Mi **objetivo**/sueño es ...	*My objective/dream is to ...*
En el futuro voy a ...	*In the future I am going to ...*
ser jefe/a (de una compañía)	*be a/the boss (of a company)*
ser rico/a / tener éxito	*be wealthy / be successful*
luchar por un mundo mejor	*fight for a better world*

Mi vida digital (pages 8–9):

¿Qué haces con tu móvil?	*What do you do on your phone?*
¿Qué haces con tu ordenador/portátil?	*What do you do on your computer/laptop?*
Escucho música	*I listen to music*
Mando / Recibo mensajes	*I send / receive messages*
Leo las noticias	*I read the news*
*Envío correos electrónicos	*I send emails*
*Saco fotos / **Grabo** vídeos	*I take photos / record videos*
Uso aplicaciones como ...	*I use apps like ...*
Utilizo las redes sociales	*I use social media*
No tengo ordenador	*I don't have a computer*
Chateo en línea/con mis amigos	*I chat online/to my friends*
Hago compras / *llamadas	*I shop / I make calls*
Soy *adicto/a a ...	*I am addicted to ...*
Mis amigos y yo ...	*My friends and I ...*
*sacamos fotos / subimos vídeos	*take photos / upload videos*
no jugamos mucho a los *videojuegos	*don't play videogames much*

Prefiero / Preferimos / Prefieren ...	*I / We / They prefer (to) ...*
aplicaciones como ...	*apps like ...*
compartir/subir imágenes ...	*share/upload images ...*
*enviar correos electrónicos	*send emails*
hacer compras por Internet	*shop on the Internet*
jugar *en directo a ...	*play ... live*
ver vídeos/programas	*watch videos/programmes*
ver **documentales**/series	*watch documentaries/series*
¿Cuánto tiempo pasas ...?	*How much time do you spend ...?*
Paso ... horas al día	*I spend ... hours per day*
Siempre / Todo el tiempo	*Always / All the time*
Todos los días / A menudo	*Every day / Often*
De vez en cuando	*From time to time*
A veces	*Sometimes*
(**Casi**) Nunca	*(Almost) Never*
Una vez / dos veces a la semana	*Once / twice a week*
Los fines de semana	*At the weekends*

Year 10 - MUSIC - Component 1

Compositional Features	
Melody (the tune)	**Ascending** (rising) and **descending** (falling) **Repetition** (repeating with no changes) and **contrast** (something different) **Imitation** (repeating with some changes) **Ostinato** (A short repeated idea) **Chromatic** (using notes not in the original key - extra sharps and flats) **Conjunct** (moving in step) **disjunct** (moving in leaps) **Sequence** (repeating, but at a different pitch)
Harmony (chords)	**Triad** (a chord with three notes) **Power Chord** (Only playing the root and fifth note of a chord) **Dissonance** (clashing notes played at the same time) **Consonance** (notes that fit and sound nice together) **Chord sequence** (the order of a pattern of chords following each other) **Tierce de Picardie** (when the piece is in a minor key, but ends with the very last chord being a major chord unexpectedly)
Tonality (the key)	**Tonal** (in a major or minor key) **Atonal** (no sense of key) **Modal** (old fashioned scales) **Pentatonic** (only uses the five note scale) **Diatonic** (only uses notes found in the key of the piece) **Chromatic** (Adds extra notes other than those found in the key – sharps/flats) **Modulation** (changing the key of the piece)
Rhythm (the pattern and lengths of notes and silences)	**On the beat** (playing on one of the beats you would tap your toe to. **Off-beat** (Playing in between the beats you would tap your toe to) **Syncopation** (playing off or in between the beat) **Tempo** (the speed of the beat) **Rubato** (not sticking strictly to the beat to add emotion) **Swing /swung rhythms** (played differently to give a swinging feeling)
Structure (the order in which the music is set out)	**Binary Form** (Music in two parts – section A and section B) **Ternary Form** (Music in three parts – section A, section B, Section A) **Strophic** (same music for each section - A,A,A – like a hymn or carol) **Theme and Variations** (A theme, followed by changes to the theme) **Song Form**)Intro, verse, chorus, verse chorus, bridge, chorus, outro)

Sonic Features	
Instrumentation (the instruments playing and what they are doing)	**Solo** (1 performer) **Duet** (2 performers) **Trio** (three performers) **Quartet** (4 performers) **Voice ranges - Soprano, alto, tenor, bass, falsetto, treble.** **Acapella** (singing without any accompaniment) **Backing vocals** (support singer, harmonies) **Chorus** (music written for a choir) **Orchestra** **Brass section** (trumpet, trombone, french horn, tuba) **String section** (violin, viola, cello, double bass, harp) **Woodwind** (flute, clarinet, oboe, saxophone, bassoon) **Percussion section** (timpani, triangle, tambourine, cymbals, xylophone, glockenspiel)
Timbre and techniques (the way instruments are played)	**Stringed instruments** **Pizzicato** (plucking the strings) **Arco** (using the bow on strings) **Double stopping** (playing two strings at once) **Tremelo** (quickly repeating the same note like trembling) **Brass instruments** **Mute** (putting a cork shaped object in the bell to dampen the sound) **General** **Glissando** (sliding) **Pedal** (on piano used to sustain the sound) notes **Vibrato** (making the sound waver up and down to add emotion) **Strumming, picking, hammer on** and **hammer off.** (guitar)
Texture	**Monophonic** (only one part playing on its own) **Melody and Accompaniment** (melody plus some chords or ideas with it) **Call and Response** (one idea played/sung and another responds) **Homophonic** (all parts move at the same time) **Polyphonic** (Several lines of music at the same time) **Unison** (everyone playing the same melody)

The Blues

Melody
- Call and response (African tradition)
- Improvisation
- Lyrics - AAB pattern



Rhythm
- 4/4 time
- Steady speed
- Syncopation used, particularly in improvisation

12 Bar Blues Chord Progression in C

1 C	2 C	3 C	4 C
5 F	6 F	7 C	8 C
9 G	10 F	11 C	12 G

Harmony
- Blues scale
- 12 bar blues chord progression
- Blues notes

- **1870's ...**
- **Orginated in the deep south of the USA**
- **Developed in the 1870's from African work songs and spirituals during the slave trade period**



- **Robert Johnson**
- **Muddy Waters**
- **B.B. King**

Structure
- 12 Bar Blues
- Walking bass
- Improvisation
- Melody

Minimalism

Harmony
•Drones
•Consonant harmony
•Simple chord progressions
•Tonal ambiguity

•1960's...
•Developed in the US
•Sounded nothing like anything you would find in the pop charts
•Used for film and TV

•Terry Riley
•Steve Reich
•Phillip Glass

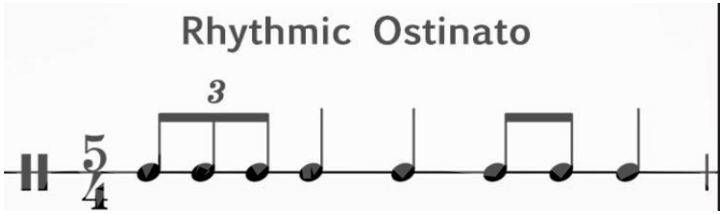
Melody
•Repetitive musical phrases
•Short ostinatos
•Sequences
•Use of layers
•Note addition (notes are added to a repeated phase) and note subtraction



Production
Use of technology to record and edit

Structure
Doesn't follow a set structure

Rhythm
- Repetitive patterns or pulses
- Phase shifting
- Use of polyphonic textures
- Experimental and changing time signatures - 3/2
- Syncopation
- Metrical displacement (entries start on different notes so accented notes fall in different places)
- Cross rhythms
- Augmentation
- Diminution



Reggae

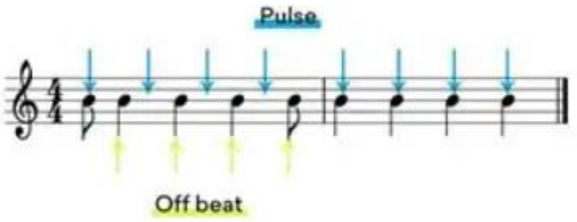
Harmony
•Simple chord sequences - major and minor chords
•Seventh chords are sometimes used

•**1960's - 1970's**
•**Originated in** Jamaica
•Jamaican Dance Music

•Bob Marley and The Wailers
•Jimmy Cliff

Melody
•Call and response used - this is in the vocals
•Melodic bass line
•Horn sections plays countermelodies
•Lyrics refer to rastafari and politics

Off beat syncopation



Production
- Dub remixing techniques - delay added

Structure
- Strophic form



Rhythm
•Syncopated
•One Drop - emphasis on beat 3
•Skanking
•Slow tempo
•4/4 metre
•Staccato chords played on the piano, guitar or both = skanking
•Reggae is led by the drums and the bass
•The bass is thick and heavy
•Guitar plays off beat chords - beats 2 & 4



Techno

BEAT DROP

A sudden change in beat or rhythm after a build-up and break.

•1980's ...
•Originated in Detroit
•Influenced by Synthpop, House, Electro and Funk

•Belleville Three
•Juan Atkins
•Derrick May
•Kevin Saunderson

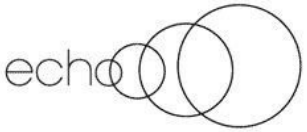
Melody
•More about timbre than form
•Use of klangfarbenmelodie - splitting the melody between different instruments
•Motif development



Production
- Reverb
- Delay
- Effects
- Looping and layering

Structure

Intro
Middle
Build-up – break
Drop
Outro

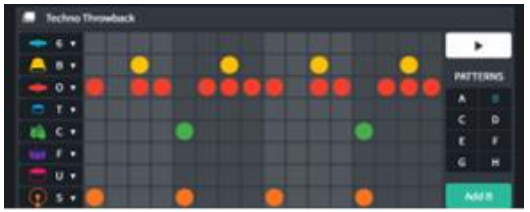


Sound made repeats back to performer.



Sound bouncing off objects in the room.

Rhythm
- Repetitive beat - produced for a continuous DJ set
- 4/4
- 120 - 150bpm
- Rhythm is the most important feature
- **Drums** - four to the floor
- **Drums** - snare and clap on the off beats
- **Drums** - Hi-hat in 8ths
- Use of Disco drum beat
- Syncopation
- Poly-rhythms



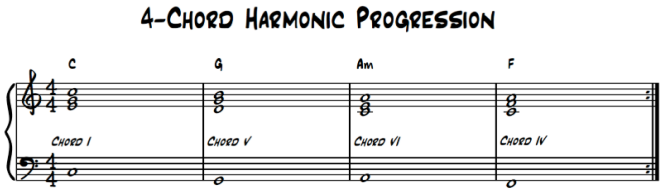
British Invasion

Harmony
•Simple chord sequences - major and minor chords
•i.e. G, D, Em, Am, C, G

•**1960's ...**
•UK rock and pop acts became popular in the US
•**Beatlemania**
•**Influenced by** US Rock and Roll

•The Beatles
•The Rolling Stones
•The Kinks

Melody
•Vocal melody lines were often rhythmic and catchy.
•Some melodies used vocal harmonies to create difference and excitement in the melody.
•The Beatles known for their use of 'close harmony'

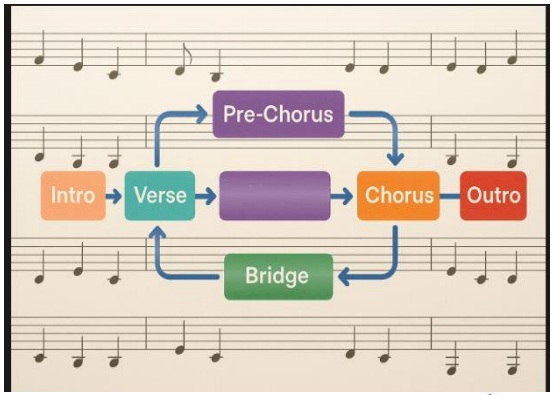


Production
•Multi-track recording
•Live recording
- Recorded on tape and distributed on vinyl
- Use of effects reverb/delay/distortion

Structure
- Typical song structure

Rhythm
•4/4 time.
•Moderate speed - 80-110 bpm
•Fast and bouncy rhythms

Instrumentation
- Standard rock band set up sometimes with additional orchestral instruments.
- Guitars
- Bass
- Drums
- Vocals





Horror Film

Rhythm
- Ostinatos
- Syncopation
- Quick changes of tempo

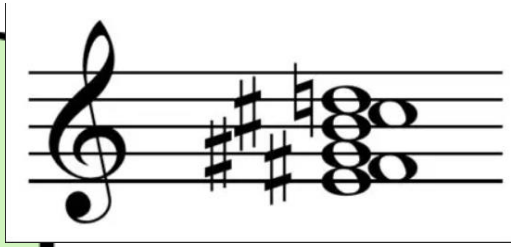
Dynamics
- Varies with action on the screen
- Wide range of dynamics
- Sudden changes

Melody
- Leitmotifs
- Manipulation of leitmotifs to match the action (Changing rhythm, instrumentation, accompaniment, adding new material or development of ideas)
- Quick changes of melodies
- Rapid shifts from one musical idea to the next
- Sudden changes of pitch
- Cluster chords

Harmony
•Atonal
•Quick changes of harmony
•Ambient pad sounds using synth
•Drones
•Dissonance



•Establishes atmosphere, time and place
•Moves the actions forward
•Describes characters
•Accompany scene changes
•Add to the dramatic impact



Texture
- Layers - of different sounds and ideas

Structure
- Through composed

•Hanz Zimmer
•John Williams
•Danny Boyle



Year 10 BTEC Dance Knowledge Organiser – Component 1

Key vocabulary - Choreographic Devices:

Canon	Performing the same movement one after another.
Unison	Performing the same movement at the same time
Formation	The position you stand in to perform.
Levels	The height at which you perform your movement
Repetition	Repeating the same movement or phrase more than once
Retrograde	Performing the motif backwards.
Fragmentation	Dividing the dance into smaller chunks and reordering this to create a new phrase

Jose Limon - Who are they?

Modern dance pioneer José Limón was born on January 12, 1908, in Culiacán, Mexico. His family immigrated to the United States when he was a boy, and he grew up in Los Angeles, California. A move to New York in 1928 brought Limón into contact with the modern dance world. He trained as a dancer and became a major performer and choreographer, eventually founding his own dance company in 1947. Internationally celebrated for his powerful and influential style, Limón died in New Jersey in 1972.

What is their technique?

The Limón technique is divided among various physical extremes: fall and recovery, rebound, weight, suspension, succession and isolation. These ideas can be illustrated in the way a dancer uses the floor as a place from which to rise, return to and then rise from again. The way a dancer explores the range of movement between the one extreme of freedom from gravity and the other of falling into it.

Steve Paxton - Who are they?

Steve Paxton is perhaps best known as the founder of the dance technique called contact improvisation, a form of partnering that uses physical laws such as friction, momentum, gravity, and inertia to explore relationships between dancers. Born in 1939, Paxton was a member of Jose Limon's company in 1960 and danced for Merce Cunningham from 1961 until 1964.

What is their technique?

Contact Improvisation is a partner dance form based on the physical principles of touch, momentum, shared weight, and most quintessentially - following a shared point of contact. The form was founded in 1972 by Steve Paxton. Integrating his background as a modern dancer and his studies in the martial art form Aikido.

Joan Skinner - Who are they?

Joan Skinner developed and refined Skinner Releasing Technique over five decades into a comprehensive training system that has radically influenced dance performance, creation and education across the world. Skinner Releasing Technique (SRT) is an influential and rigours approach to movement evolved from the principle that releasing tension and habitual holding patterns enables greater freedom, power and articulation.

What is their technique?

Skinner Releasing Technique (SRT) is a pioneering approach to dance, movement and creative process that has evolved from the simple principle that when we are releasing physical tension, we can move with greater freedom, power and articulation.
SRT is unusual in that technical aspects of moving and dancing, such as posture and alignment are experienced as creative explorations that take form as spontaneous movement. Technical and creative aspects of practice are indistinguishable.

Martha Graham - Who are they?

In 1926, Martha Graham founded her dance company and school, living and working out of a tiny Carnegie Hall studio in midtown Manhattan. In developing her technique, Martha Graham experimented endlessly with basic human movement, beginning with the most elemental movements of contraction and release. Using these principles as the foundation for her technique, she built a vocabulary of movement that would "increase the emotional activity of the dancer's body." Martha Graham's dancing and choreography exposed the depths of human emotion through movements that were sharp, angular, jagged, and direct. The dance world was forever altered by Martha Graham's vision, which has been and continues to be a source of inspiration for generations of dance and theatre artists.

What is their technique?

Graham technique is based on "contraction and release", and uses different parts of the body in opposition to one another to create spirals for dramatic tension. It also incorporates formal exaggerations of "natural" movements

- **CONTRACTIONS** - Contract a muscle to create tension, then use the flow of energy to start the movement when the muscle is relaxed. This results in a choppy, tight movement.
- **RELEASE** - Is any of various dance techniques that focus on breathing,

Merce Cunningham - Who are they?

Cunningham began to study dance at 12 years of age. After high school he attended the Cornish School of Fine and Applied Arts in Seattle, Washington, for two years. He subsequently studied at Mills College, where he was invited by Martha Graham to join her group. As a soloist for her company, he created many important roles, and his incredible jumps were showcased in Graham's "El Penitente" (1940)

What is their technique?

Cunningham Technique was developed by Merce Cunningham to train dancers for his company. The technique emphasizes clarity of form, coordination of torso and legwork, rhythmic accuracy, spatial awareness and virtuosity.
Cunningham also choreographs by letting **chance** dictate many of his choreographic decisions and believed the music should be created separately from the movement. Merce uses techniques like rolling dice and flipping coins to create movement.

	muscle relaxation, anatomical considerations, and the use of gravity and momentum to facilitate efficient movement. • **TRIPLETS** – Movement goes: up, up, down, and up, up, down. It's a triplet step. Also to create style you can see I'm doing a nice shoulder action	

Key Vocabulary for physical and performance:

Extension	The lengthening of body parts outwards. E.g. Straight arms and pointed toes
Flexibility	The range of movement possible in the joints/muscles
Coordination	The ability to use different parts of the body together smoothly and efficiently.
Posture	The way the body is held
Stamina	Ability to maintain physical and mental energy over periods of time.
Timing	Performing the correct movement at the correct time. This should be in time with your group
Musicality	How in time you are with the music
Energy	How much physical effort you apply to the performance
Facial Expressions	Animating the face to engage with your audience/communicate the theme of your performance
Projection	Projecting your movements outwards into the space with appropriate energy.
Dynamic Awareness	Noticing and applying the correct quality to each movement. For example: sharp, soft, fluid etc.

Types of Structure:

Narrative – The dance tells a clear story in chronological order

Rondo – Having 3 or more themes in a piece of choreography but always retuning to a reoccurring theme in between each section (A, B, A, C, A)

Ternary - A three-part choreographic structure. The second section contrasts with the first section (ABA). The third section is a development of the first section.

Binary – A two part structure (AB) that has two self-contained themes. These may be linked through tempo or type of movement etc.

Choreographic approaches:

Choreographers sometimes create all movement **before the rehearsals and then teach it to the dancers.**

Other choreographers choose to work more **collaboratively and set the dancers tasks** to create some of the movement.

Most choreography is created through **improvisation.** Improvisation is the process of generating movement spontaneously and the refining it to develop motifs.

Constituent features:

Constituent features refer to anything that you see in the performance space. These include the characteristics of choreography, the physical and the aural setting. Constituent features are used to enhance a performance and to communicate the stimulus/choreographic intention with the audience.



- **Characteristics of choreography** - Dance style, stimulus, subject matter, number/gender of dancers, action content, choreographic principles, form, and structure.

- **Lighting -** The use of light in a performance, this can include coloured washes, spotlights, blackouts, and natural light.

- **Sound/Aural Setting** - Aural setting includes the music, sound, any spoken words, any audible aspects of the dance and silence.

- **Set/Physical Setting/Performance Environment** - The set for a performance includes the type of stage, use of props, any raised platforms, backdrops, and special effects.

- **Costume -** What the dancers wear when they perform. This can include jewellery or accessories depending on the piece.

Roles, Responsibilities & Skills:

In each production there will be many roles that bring a performance together and the **INTERRELATIONSHIPS** you will work with along the way.

Interrelationships – Means people you will also work alongside.

Choreographer - A choreographer's responsibility it to develop ideas from the stimulus or brief and use this to create movement. They have to develop the movement using choreographic devices and then teach it to the dancers. Choreographer's choose the dance style for the piece and give feedback to the dancers throughout the rehearsal process. Skills needed to do this include the following:

- Choreography skills
- Creativity
- Communication skills
- Organisation skills
- Leadership skills
- Technical & performance skills

Dancer - A dancer's responsibility it to continuously develop their performance and technical skills so that they are able to learn and perform new movements. They should learn and remember the choreography as well as contributing to any choreography tasks that are set. They must attend all rehearsals and apply any feedback given by the choreographer. Skills needed to do this include the following:

- Creativity
- Communication skills
- Organisation skills
- Time management skills
- Technical & performance skill

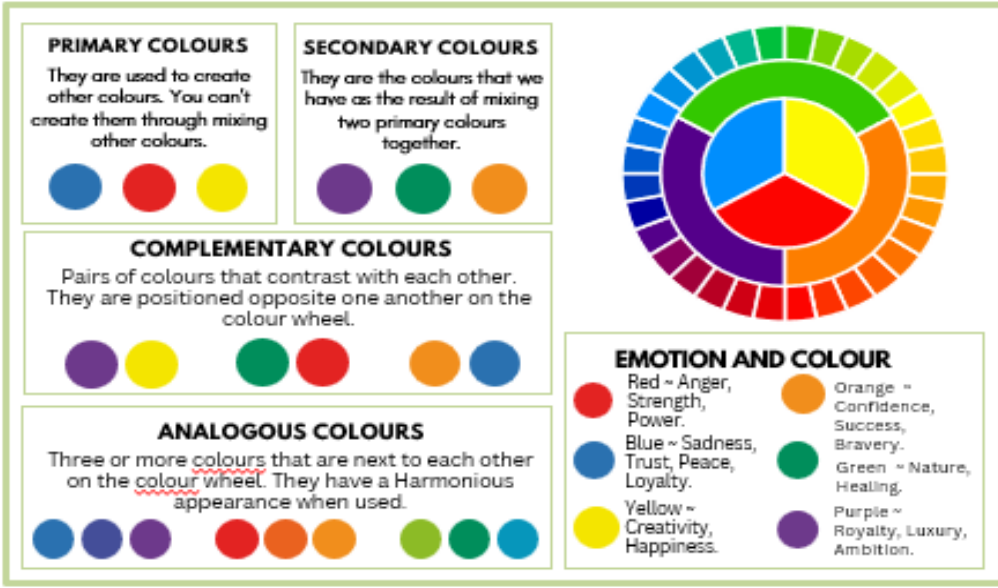
Examples of other Roles within a production:

- Hair and Make Up
- Costume Department
- Technical Crew
- Director
- Market Team

Graphics: Annotations

Checklist

What have you done? what techniques or materials have you used?
Why did you do this? what are you trying to achieve?
Do you think this was successful?
Do you think this Is unsuccessful? If so, why and what could you change or do differently?
What have you learnt from this? how can this Inform your next piece of work?
How would the work be different If you used different media?
How does this relate to the artist/ theme/Brief?



Sentence Starters

This is an observational drawing that I created of a ...
This is a series of photographs I took ...
This is a response to the artist ...
I looked at the artist's use of ...

I drew this using ...
I painted this image with ... I looked carefully at ...
I constructed this from ...
I built layers by using collage materials like ...
I drew directly from life the ... observing the ...

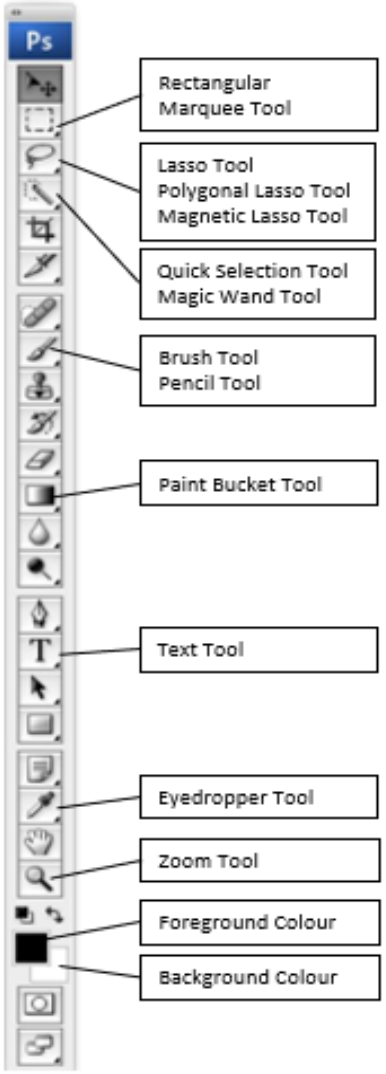
I have learnt about ...
By doing this experiment I have learnt ...
I began by ...
I have discovered ...
I improved my skills in ...
I feel more confident about ...
To build upon this idea I will ...
Next time I will try ...
In my opinion ...
I like how I have edited this image because ...

Final Checklist

- Used full sentences?
- Fully described the photograph?
- Said **HOW** and **WHY** you have created/ chose the image?
- Used Key Vocabulary?

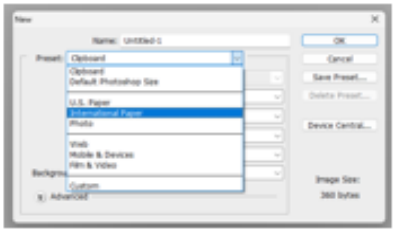
Photoshop

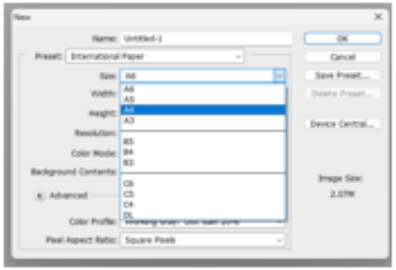
Photoshop Tools



New Page

1. Click File
2. Select New
3. Select Preset – International Paper
4. A4



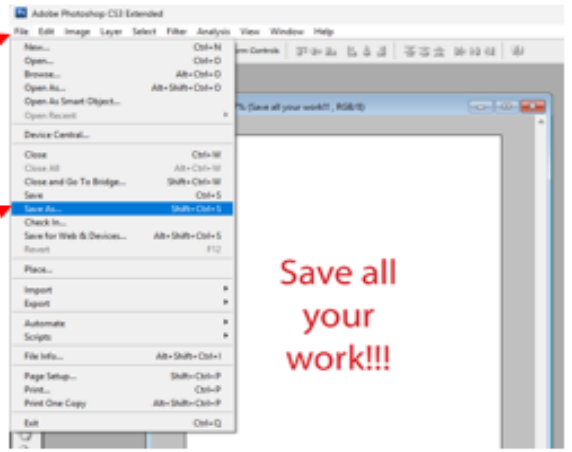


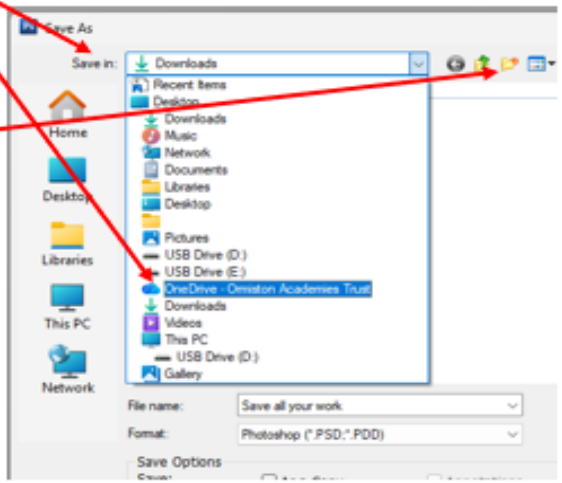
Commands

Ctrl + C	Copy
Ctrl + V	Paste
Ctrl + T	Transform
Ctrl + X	Cut
Ctrl + D	Deselect
Ctrl + J	Duplicate Layer

Saving your work

1. Click *File*
2. Click *Save As*
3. Click the *Save in* box.
4. Select *OneDrive*
5. Create a new folder called *Year 10 Photography*
6. Select this folder when you save any work from Photoshop or PowerPoint.





Graphics Key Skills

Saving your photographs

Card Reader

SD Card



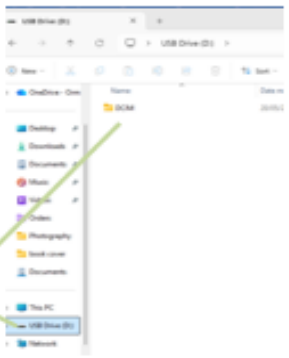
Plug the card reader into the USB port on the computer

Click the **Computer** icon on the desktop

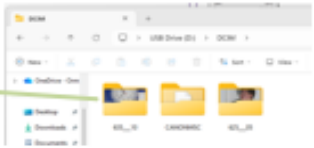


Click **USB Drive**

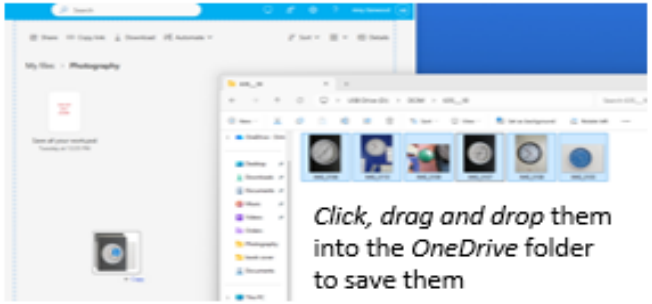
Open the **DCIM** folder



Click the folders to locate your photos

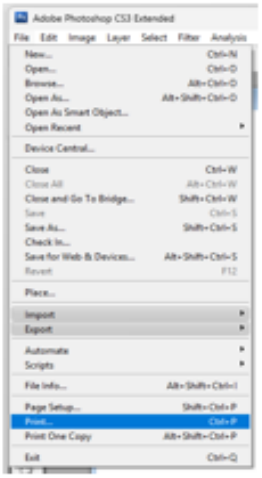


Highlight the photos you are saving.
Open your *OneDrive* folder.



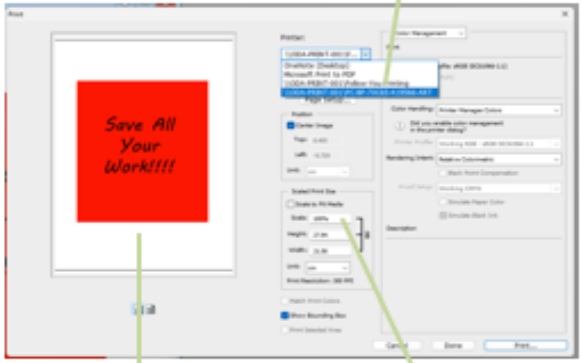
Click, drag and drop them into the *OneDrive* folder to save them

How to Print - Photoshop



1. Click File
2. Print

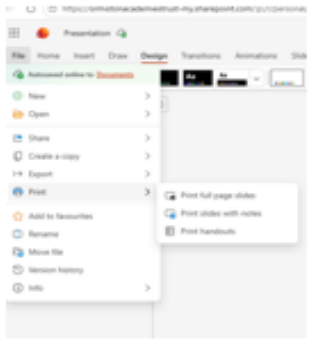
Select Printer called **PC-BP**



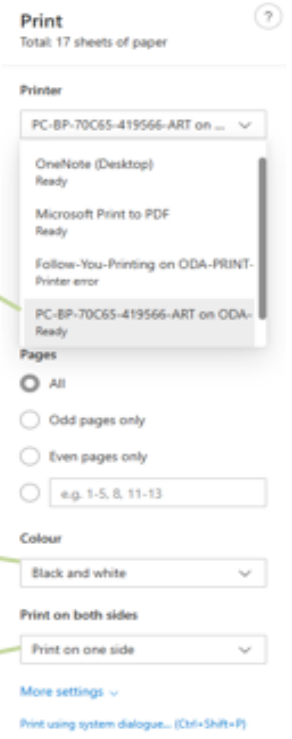
Preview of your print on A4

Make sure the scale is correct.
Adjust the % to the correct size.

How to Print - PowerPoint



1. Click File
2. Print
3. Print full page slides



Select Printer called **PC-BP**

Make sure it is in **colour**

And select **Print on one side**

Graphics: Artist/Designer Annotations

ANALYSING GRAPHC ARTIST WORK	ANALYSIS SENTENCE STARTERS	FORMAL ELEMENTS	PROVIDING EXAMPLES
Answer these questions to describe one image in detail.	**You could use any of these to begin describing.**	**Use these points in your descriptions.**	**Add more information by using these.**
What do you see? What materials have been used? What is the composition and why? Do they use line, pattern, textures, tone, flat colour? How do they use this? What colours have been used and why? How does the work link to your own work: ie use of colours, patterns, subject matter, objects used? How will you use their ideas in your own work?	My first impressions of this piece are ... This artwork is about ... In this piece I can see ... I think the artist chose to use this media because ... I think the artist used ... to show ... the element of this image I find interesting is the artist's use of ... I think this piece is successful because ... This piece makes me feel ... I like ... I could use ... within my own work by ...	*Shape* Area enclosed by lines. Shapes can be outlines or shaded in. *Form* Three-Dimensional shape. *Texture* Is it smooth, rough or bumpy? *Pattern* A design that is repeated *Line* Can be bold, delicate, organic, controlled, free, thick, thin or loose. *Colour* Primary, Secondary, Tertiary. complementary, analogous, value. Can be used to create emotion. *Tone* Refers to Light and Dark.	For example ... Such as ... Which can be seen ... One way this is shown is... I have used this in my own work by ... I developed this idea further by ... This is shown in my experiment where I ... **CONNECTING POINTS** Additionally Similarly Also However Although On the other hand Alternatively

Photography Annotation

Checklist

What have you done? What techniques or materials have you used?

Why did you do this? What are you trying to achieve?

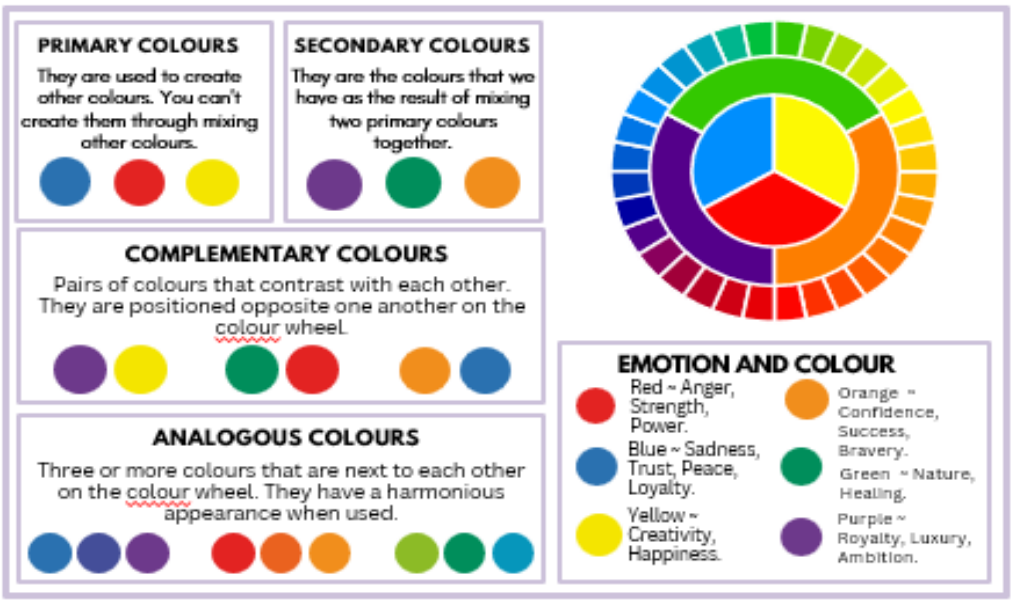
Do you think this was successful?

Do you think this was unsuccessful? If so, why and what could you change or do differently?

What have you learnt from this? How can this inform your next piece of work?

How would the work be different if you used a different composition, lighting, angle?

How does this relate to the photographer or theme?



Sentence Starters

This is my most successful image because ...
This is a series of photographs I took ...
This is a response to the photographer ...
I looked at the photographer's use of ...

I drew this using ...
I edited this image in Photoshop, using ...
I built layers by using collage materials like ...
I used a ... shot to achieve ...
I was inspired by ...

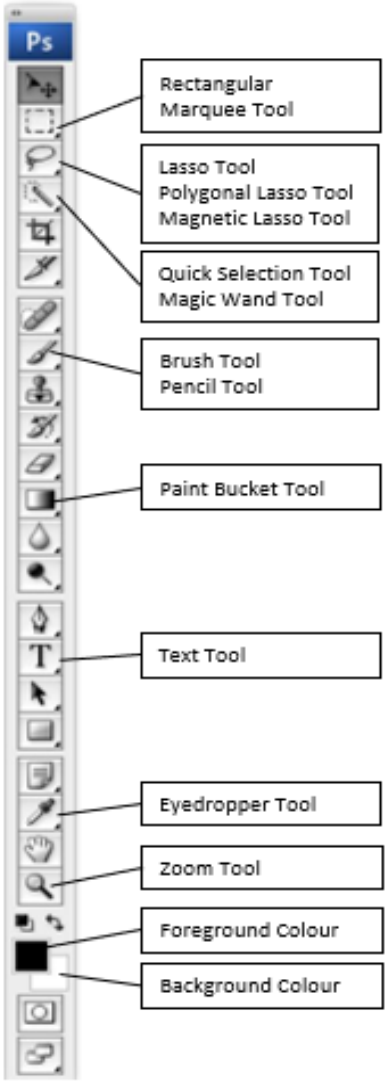
I have learnt about ...
By doing this experiment I have learnt ...
I began by ...
I have discovered ...
I improved my skills In ...
I feel more confident about ...
To build upon this idea I will ...
Next time I will try ...
In my opinion ...
I like how I have edited this image because ...

Have you?

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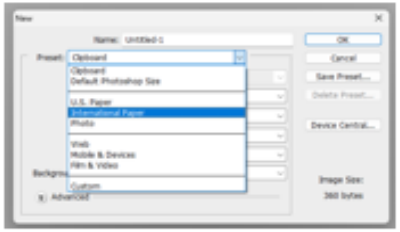
Photoshop

Photoshop Tools



New Page

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2. Select New
3. Select Preset – International Paper
4. A4



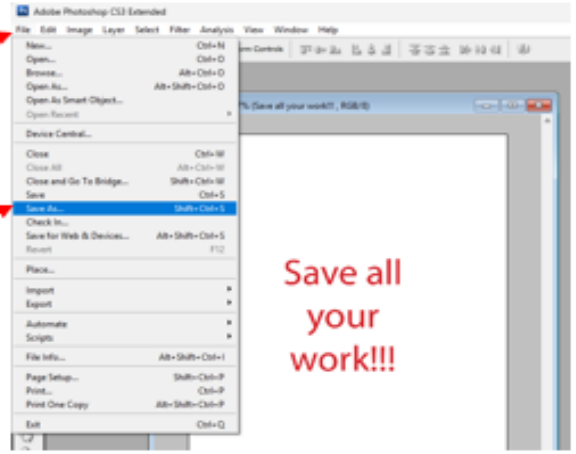


Commands

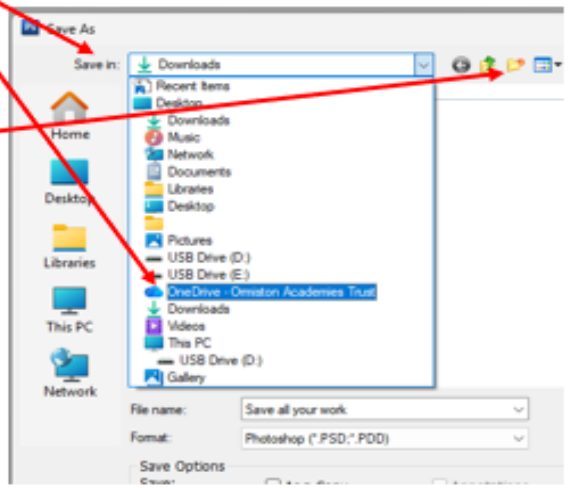
Ctrl + C	Copy
Ctrl + V	Paste
Ctrl + T	Transform
Ctrl + X	Cut
Ctrl + D	Deselect
Ctrl + J	Duplicate Layer

Saving your work

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2. Click *Save As*
3. Click the *Save in* box.
4. Select *OneDrive*
5. Create a new folder called *Year 10 Photography*
6. Select this folder when you save any work from Photoshop or PowerPoint.



Save all your work!!!



Photography Key Skills

Saving your photographs

Card Reader

SD Card



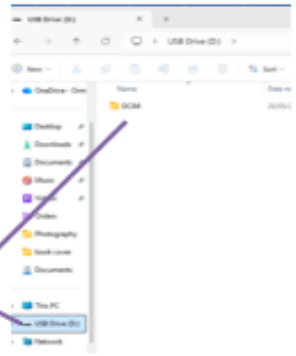
Plug the card reader into the USB port on the computer

Click the **Computer** icon on the desktop

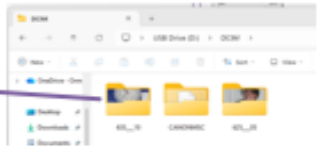


Click **USB Drive**

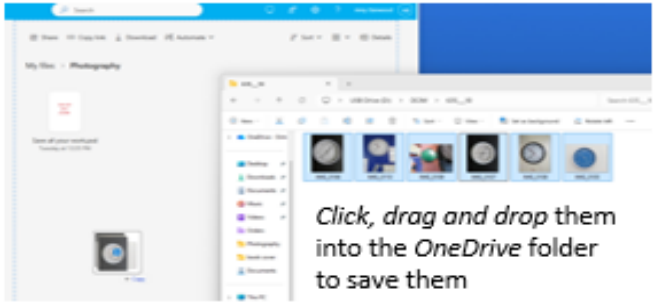
Open the **DCIM** folder



Click the folders to locate your photos

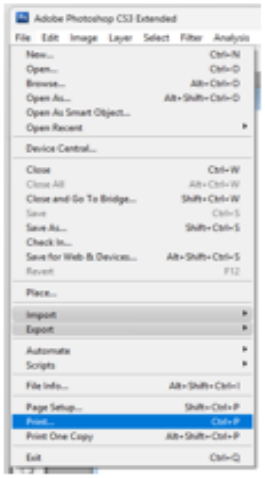


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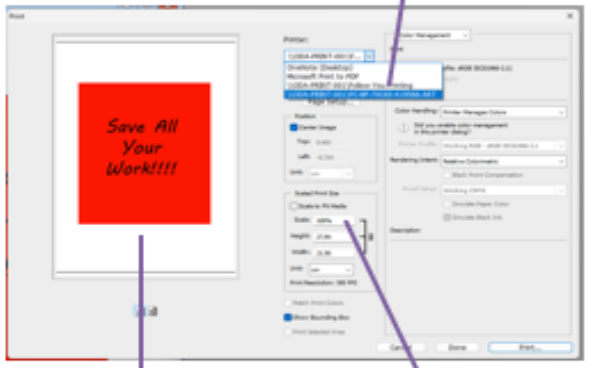
Click, drag and drop them into the *OneDrive* folder to save them

How to Print - Photoshop



1. Click File
2. Print

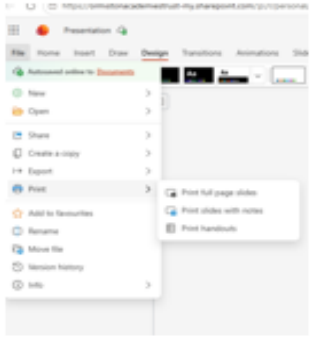
Select Printer called **PC-BP**



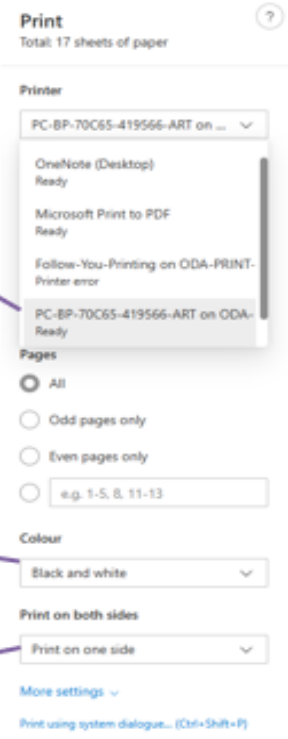
Preview of your print on A4

Make sure the scale is correct.
Adjust the % to the correct size.

How to Print - PowerPoint



1. Click File
2. Print
3. Print full page slides



Select Printer called **PC-BP**

Make sure it is in **colour**

And select **Print on one side**

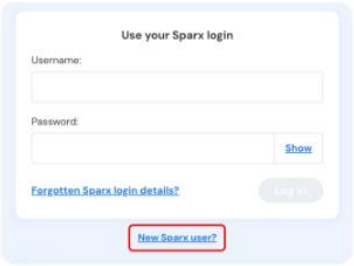
Photography: Photographer Annotations

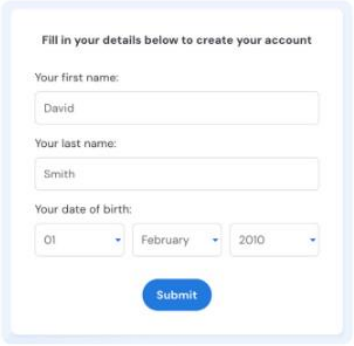
ANALYSING GRAPHC ARTIST WORK	ANALYSIS SENTENCE STARTERS	FORMAL ELEMENTS	PROVIDING EXAMPLES
Answer these questions to describe one image in detail.	**You could use any of these to begin describing.**	**Use these points in your descriptions.**	**Add more information by using these.**
What do you see? What angle has been used? What is the composition? How is this achieved? What is the focal point? Why is this the focal point? What is the mood? How has this been achieved? How does this photograph link to your own work: ie use of colours, patterns, subject matter, objects used, mood, composition? How will you use their ideas in your own work?	My first impressions of this image are ... This photo is about ... In this photo I can see ... I think the photographer chose to use this... because ... I think the photographer took this to show... The element of this image I find interesting is the photographer's use of ... I think this photo is about... This photo makes me feel... I like ... I could use ... within my own work by ...	*Shape* Area enclosed by lines. Shapes can be outlines or shaded in. *Form* Three-Dimensional shape. *Texture* Is it smooth, rough or bumpy? *Pattern* A design that is repeated *Line* Can be bold, delicate, organic, controlled, free, thick, thin or loose. *Colour* Primary, Secondary, Tertiary. complementary, analogous, value. Can be used to create emotion. *Tone* Refers to Light and Dark.	For example ... Such as ... Which can be seen ... One way this is shown is... I have used this in my own work by ... I developed this idea further by ... This is shown in my experiment where I ... **CONNECTING POINTS** Additionally Similarly Also However Although On the other hand Alternatively

SPARX Maths

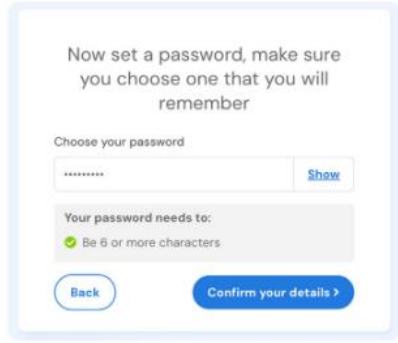
Student Guide to Logging In

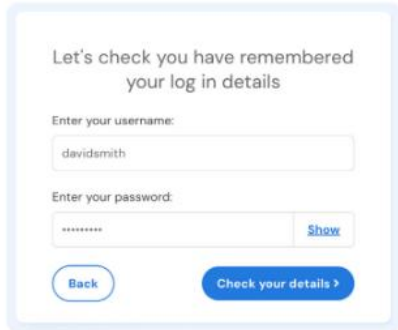
1. Go to **sparxmaths.com**
2. Select **Student Login**
3. Carefully select your school from the list
4. Select **New Sparx user**
5. Enter your:
   - First Name
   - Last Name
   - Date of Birth
6. Click **Submit**





7. You will be prompted to set your own password. The password must be at least 6 characters long and you will need to remember it
8. Confirm your username and password, then click **Check your details**
9. You can now log in to Sparx using your username and password
10. If a password is lost, you can select the option to request a new password from your teacher





SPARX Maths

Week Topic	% Completed	Bookwork Code	Working out

SPARX Maths

Week Topic	% Completed	Bookwork Code	Working out

SPARX Maths

Week Topic	% Completed	Bookwork Code	Working out

SPARX Maths

Week Topic	% Completed	Bookwork Code	Working out

SPARX Maths

Week Topic	% Completed	Bookwork Code	Working out

Foundation Tier Formulae Sheet EDEXCEL

Perimeter, area and volume

Where a and b are the lengths of the parallel sides and h is their perpendicular separation:

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

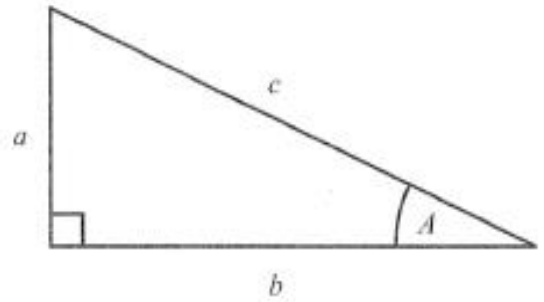
Volume of a prism = area of cross section × length

Where r is the radius and d is the diameter:

Circumference of a circle = $2\pi r = \pi d$

Area of a circle = πr^2

Pythagoras' Theorem and Trigonometry



In any right-angled triangle where a, b and c are the length of the sides and c is the hypotenuse:

$a^2 + b^2 = c^2$

In any right-angled triangle ABC where a, b and c are the length of the sides and c is the hypotenuse:

$\sin A = \frac{a}{c}$ $\cos A = \frac{b}{c}$ $\tan A = \frac{a}{b}$

Compound Interest

Where P is the principal amount, r is the interest rate over a given period and n is number of times that the interest is compounded:

Total accrued = $P\left(1 + \frac{r}{100}\right)^n$

Probability

Where P (A) is the probability of outcome A and P (B) is the probability of outcome B:

P (A or B) = P (A) + P (B) – P (A and B)

END OF EXAM AID

Higher Tier Formulae Sheet

EDEXCEL

Perimeter, area and volume

Where a and b are the lengths of the parallel sides and h is their perpendicular separation:

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

Volume of a prism = area of cross section × length

Where r is the radius and d is the diameter:

Circumference of a circle $= 2\pi r = \pi d$

Area of a circle $= \pi r^2$

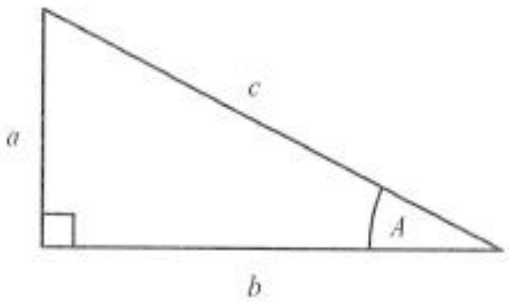
Quadratic formula

The solution of $ax^2 + bx + c = 0$

where $a \neq 0$

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

Pythagoras' Theorem and Trigonometry

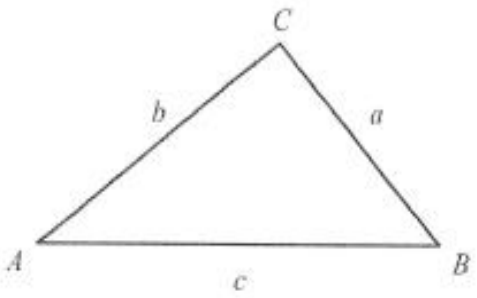


In any right-angled triangle where a, b and c are the length of the sides and c is the hypotenuse:

$a^2 + b^2 = c^2$

In any right-angled triangle ABC where a, b and c are the length of the sides and c is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$



In any triangle ABC where a, b and c are the length of the sides:

sine rule: $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

cosine rule: $a^2 = b^2 + c^2 - 2bc \cos A$

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

Compound Interest

Where P is the principal amount, r is the interest rate over a given period and n is number of times that the interest is compounded:

Total accrued $= P\left(1 + \frac{r}{100}\right)^n$

Probability

Where P (A) is the probability of outcome A and P (B) is the probability of outcome B:

P (A or B) = P (A) + P (B) − P (A and B)

P (A and B) = P (A given B) P(B)

END OF EXAM AID

Essential calculator buttons





1

Fraction button

Casio fx-83GT X	Casio fx-83GT CW

1) Press 

Then use the arrow keys to help you help you fill in the boxes.

2) Type the value of your numerator.

Now press 

Then use the arrow keys to move to the denominator and type that in.

2

Fraction button

Casio fx-83GT X	Casio fx-83GT CW

Simplifying works the same way on both calculators.

Type your fraction into the calculator and press execute.

$\frac{12}{15}$

$\frac{4}{5}$

3

Fraction button

Casio fx-83GT X	Casio fx-83GT CW

Using for calculations works the same way on both calculators.

Press the fraction button and type in your calculation

$\frac{13^2+11}{\sqrt{25}\times 6}$

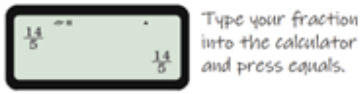
6

4

Fraction button

Casio fx-83GT X	Casio fx-83GT CW

Converting an improper fraction to a mixed number.



Type your fraction into the calculator and press equals.

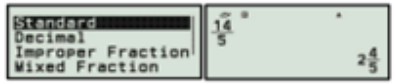
Press SHIFT Followed by S⇔D





Type your fraction into the calculator and press execute.

Press MENU and chose mixed fraction from the list.

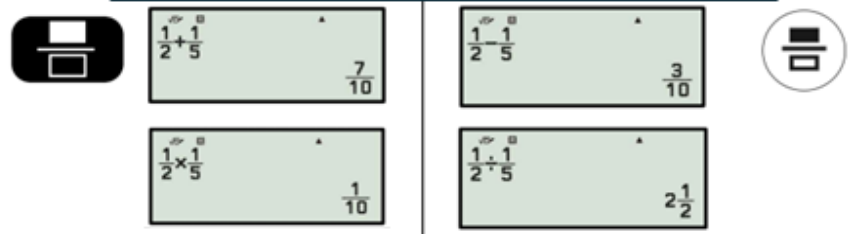


5

Fraction button

Casio fx-83GT X	Casio fx-83GT CW

Calculations work the same way on both calculators.



Remember to move the cursor to the right before typing the operation

6

Mixed Number button

Casio fx-83GT X	Casio fx-83GT CW

Converting a mixed number to an improper fraction

Press SHIFT Followed by Type in the mixed number

Press equals



Press shift and then the fraction button

Fill the boxes to type in your mixed number

Press execute EXE

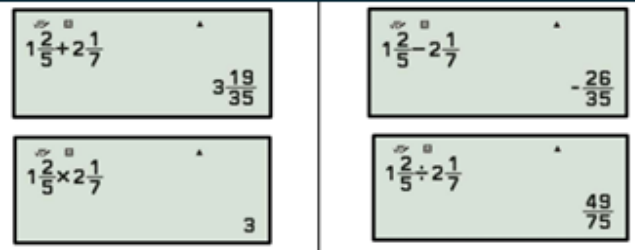


7

Mixed Number button

Casio fx-83GT X	Casio fx-83GT CW

Calculations with mixed numbers



Remember to move the cursor to the right before typing the operation

8

Fraction button

Casio fx-83GT X	Casio fx-83GT CW

Converting a mixed number to an improper fraction

Converting between fractions and decimals

Press [SHIFT] [S⇔D]





Type your decimal into the calculator and press equals.

Press [SHIFT] [S⇔D]



Converting between fractions and decimals

Press [FORMAT]







9

Recurring decimal button

Casio fx-83GT X	Casio fx-83GT CW

Using the recurring decimal button

Convert $0.\dot{6}$ to a fraction

Type [0] [.] [SHIFT] [x^2]

then fill the box with a 6 and press equals



Convert $0.\dot{2}\dot{8}$ to a fraction

Type [0] [.] [SHIFT] [x^2]

then fill the box with 28 and press equals

(you do not need to put the box in twice)



Type [0] [.] then press [↑] [$\blacksquare^{\blacksquare}$]

This brings up the recurring decimal box



Now type the recurring decimals in the box and press execute.

10

Powers

Casio fx-83GT X	Casio fx-83GT CW

Square and cube

Instead of writing 4×4

Type [4]

then [x^2]



Cubed 4^3

Instead of writing $4 \times 4 \times 4$

Type [4]

then [x^3]



Instead of writing 4×4

Type [4]

then [$\blacksquare^2$]



There is no cubed button. Use the any power button.

11

Powers

Casio fx-83GT X	Casio fx-83GT CW

Any power

Any Power 7^5

Instead of writing $7 \times 7 \times 7 \times 7 \times 7$

Type [7]

press [$x^{\blacksquare}$]



then put a 5 in the box

Any Power 7^5

Instead of writing $7 \times 7 \times 7 \times 7 \times 7$

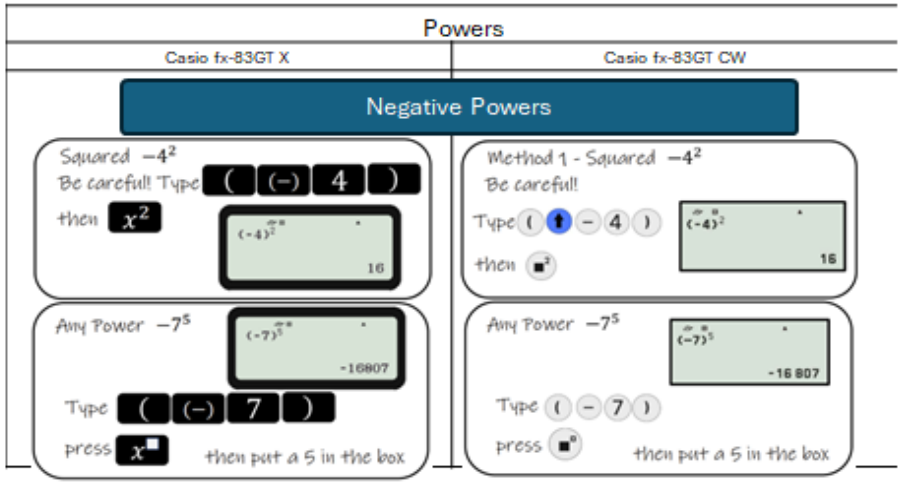
Type [7]

press [$\blacksquare^{\blacksquare}$]

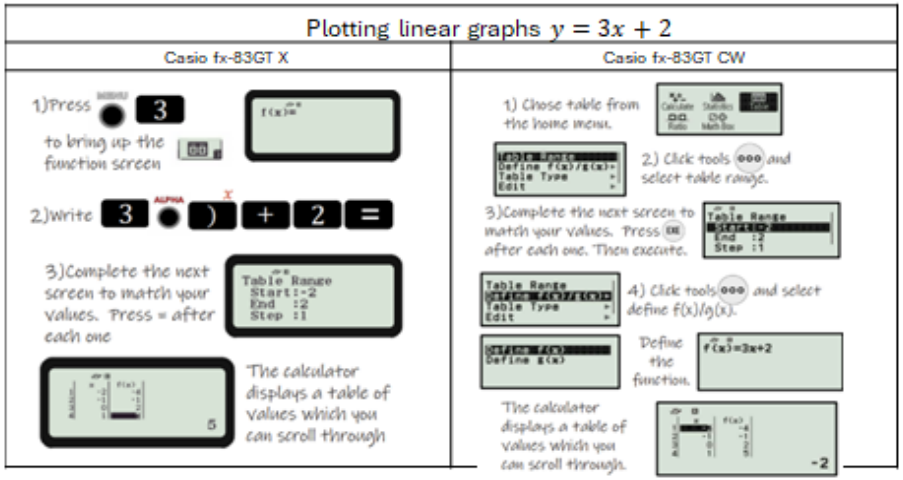


then put a 5 in the box

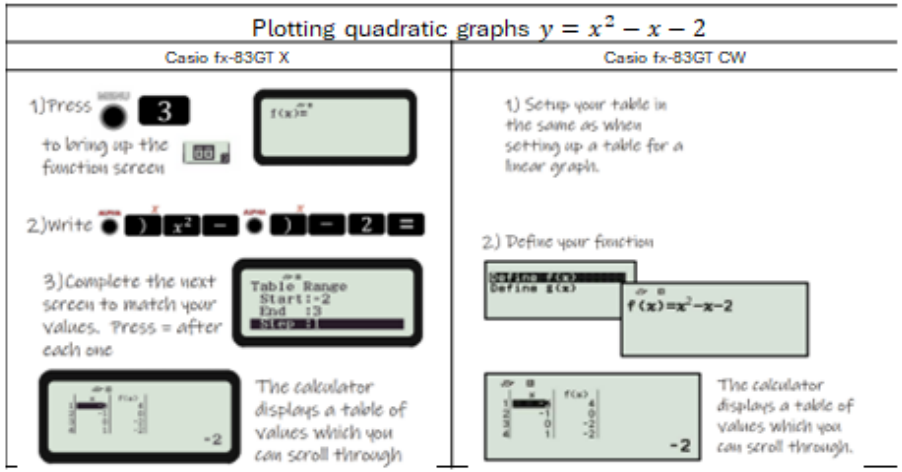
12


Powers
Casio fx-83GT X
Casio fx-83GT CW
Negative Powers
Squared -4^2
Be careful! Type ((−) 4)
then x^2
16
Any Power -7^5
-16807
Type ((−) 7)
press $x^{\square}$
then put a 5 in the box
Method 1 - Squared -4^2
Be careful!
Type (− 4)
then x^2
16
Any Power -7^5
-16 807
Type (− 7)
press $x^{\square}$
then put a 5 in the box

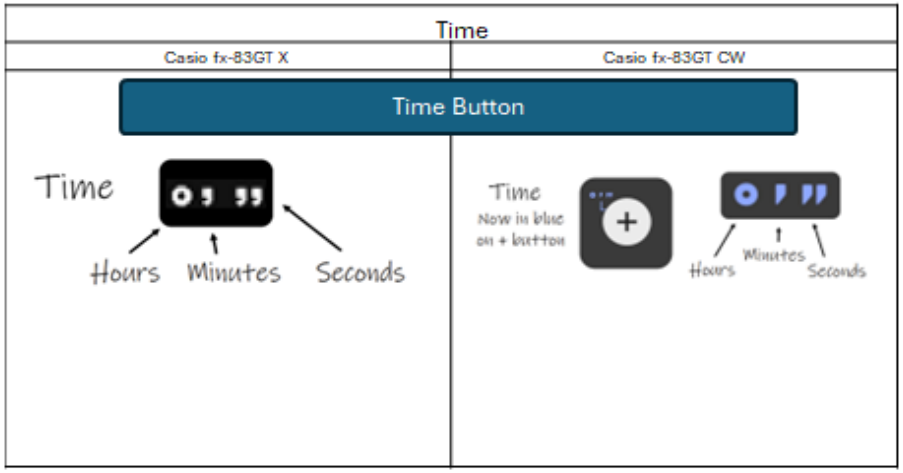
13


Plotting linear graphs $y = 3x + 2$
Casio fx-83GT X
Casio fx-83GT CW
1)Press 3
to bring up the function screen
2)Write 3 ALPHA X) + 2 =
3)Complete the next screen to match your values. Press = after each one
Table Range
Start :-2
End :2
Step :1
The calculator displays a table of values which you can scroll through
1) Chose table from the home menu.
2) Click tools and select table range.
3)Complete the next screen to match your values. Press after each one. Then execute.
4) Click tools and select define f(x)/g(x).
Define the function.
f(x)=3x+2
The calculator displays a table of values which you can scroll through.

14


Plotting quadratic graphs $y = x^2 - x - 2$
Casio fx-83GT X
Casio fx-83GT CW
1)Press 3
to bring up the function screen
2)Write) x^2 −) − 2 =
3)Complete the next screen to match your values. Press = after each one
Table Range
Start :-2
End :3
Step :1
The calculator displays a table of values which you can scroll through
1) Setup your table in the same as when setting up a table for a linear graph.
2) Define your function
f(x)=x²−x−2
The calculator displays a table of values which you can scroll through.

15


Time
Casio fx-83GT X
Casio fx-83GT CW
Time Button
Time
Hours
Minutes
Seconds
Time
Now in blue on + button
Hours
Minutes
Seconds

16

Time

Casio fx-83GT X	Casio fx-83GT CW

Using the time Button

Convert $2\frac{1}{4}$ hours to hours and minutes

Type in mixed number and press =

Now press o' "



The calculator shows 2 hours, 15 minutes and 0 seconds

Convert $2\frac{1}{4}$ hours to hours and minutes

Type in mixed number and press EXE

Press SHIFT and chose sexagesimal.





17

Time

Casio fx-83GT X	Casio fx-83GT CW

Using the time Button

Convert 575 minutes to hours and minutes

Type 0 o' " 5 7 5 o' " =

The calculator shows 9 hours, 35 minutes and 0 seconds



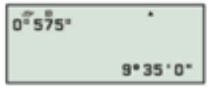
Convert 575 minutes to hours and minutes

Type 0 + This represents 0 hours

Type 5 7 5 + This represents 575 minutes

If there are 0 seconds you do not need to put these in.

Press EXE



This automatically changes the value to hours and minutes

The answer reads 9 hours, 35 minutes, 0 seconds

18

Time

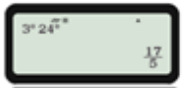
Casio fx-83GT X	Casio fx-83GT CW

Using the time Button

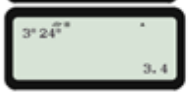
Convert 3 hours 24 minutes to hours

1) Type 3 o' " 2 4 o' " =

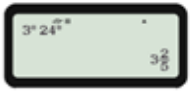
2) Press S⇔D button to change to an improper fraction



3) Press S⇔D button to change to a decimal



4) Press SHIFT S⇔D button to change to a mixed number



Convert 3 hours 24 minutes to hours

Type 3 + This represents 3 hours

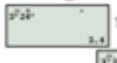
Type 2 4 + This represents 24 minutes

If there are 0 seconds you do not need to put these in.

Press EXE



Press SHIFT and chose the format you want



Decimal



Improper fraction



Mixed number

19

Time Calculations

Casio fx-83GT X	Casio fx-83GT CW

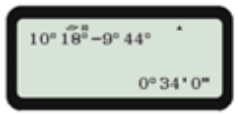
Difference in time between 10:18 and 9:44

For 1018 type

1 0 o' " 1 8 o' "

And you want to subtract the starting time of 0944

− 9 o' " 4 4 o' "



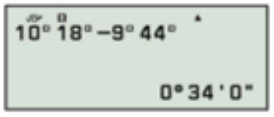
The calculator shows 0 hours, 34 minutes and 0 seconds

For 1018 type

10 + 18 + This represents 10 hours and 18 minutes

And you want to subtract the starting time of 0944

− 9 + 44 + EXE



The calculator shows 0 hours, 34 minutes and 0 seconds

20

Time button

Casio fx-83GT X	Casio fx-83GT CW

Speed Calculations

$$speed = \frac{Distance}{Time}$$

1) Press

2) Fill the distance of 450 in the numerator

3) Fill the denominator with the time calculation

11 0 − 9 30



$$speed = \frac{Distance}{Time}$$

1) Press

2) Fill the distance of 450 in the numerator

3) Fill the denominator with the time calculation

11 0 − 9 30



Average speed = 300Km/h

21

Turn frequency on/off

Casio fx-83GT X	Casio fx-83GT CW

1) Press SHIFT MENU SETUP



2) Down Arrow



3) Press 1 for Statistics

4) Press 1 for on (or 2 for off)



This will set the calculator to have a frequency column

1) Press and select statistics.

2) Choose either 1 variable or 2.



3) Click on the tools button



4) Click on frequency

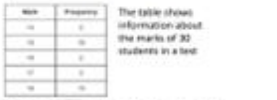
4) Choose where to turn the frequency on or off.



22

Mean from a table

Casio fx-83GT X	Casio fx-83GT CW



The table shows information about the marks of 30 students in a test

1) Press then 2 for statistics

2) press 1 for 1 variable

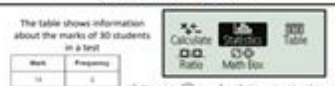
3) Enter values into 1st column. Move across to enter frequency into 2nd column

DO NOT PRESS AC

4) Press OPTN then 3:1-variable Calc



Mean $\bar{x} = 16.5$ Sum of values $\sum x = 495$ Number of values $n = 30$



The table shows information about the marks of 30 students in a test



1) Press and select statistics.

2) Select 1 variable



3) Enter values into 1st column. Press after each value. Move across to 2nd column to enter frequency into 2nd column.



Press when all values are in the table.



Choose 1 variable



Mean $\bar{x} = 16.5$ Sum of values $\sum x = 495$ Number of values $n = 30$

23

Casio fx-83GT X	Casio fx-83GT CW

Ratio calculations work the same way on this calculator.

Use = instead of exe

Finding one part of a ratio from another part (1)

A packet of sweets is shared in the ratio 4 : 5. If the larger share is 60 sweets, how much is the smaller share?



Select ratio from the home screen

Select A:B=X:D





Change the first ratio to 4:5 and the D to 60 Type each number and press each time

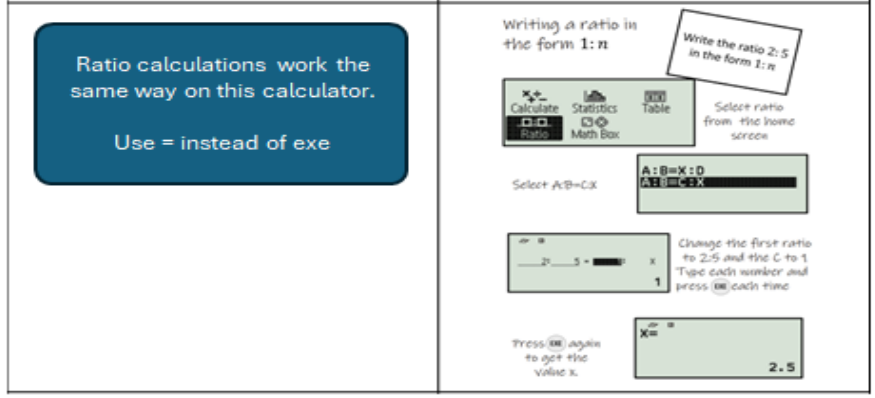
Press again to get the value x.



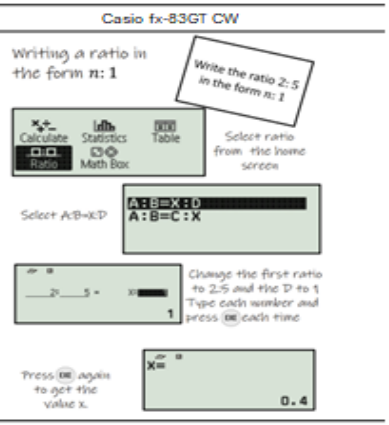
24

Casio fx-83GT X	Casio fx-83GT CW
Ratio calculations work the same way on this calculator. Use = instead of exe	

25

Casio fx-83GT X	Casio fx-83GT CW
Ratio calculations work the same way on this calculator. Use = instead of exe	

26

Casio fx-83GT X	Casio fx-83GT CW
Ratio calculations work the same way on this calculator. Use = instead of exe	

27

PSHE – signposting support

Health and wellbeing

General health

NHS — nhs.uk

NHS non emergency 111
111.nhs.uk

Mental health

Kooth.com

beateatingdisorders.org.uk

mind.org.uk

giveusashout.org
text *'shout'* to 85258

youngminds.org.uk

Specific health conditions

cancerresearchuk.org

teenagecancertrust.org

adfam.org.uk

Personal safety

Alcohol and drugs

alcoholchange.org.uk

talktofrank.com
0300 123 6600

wearewithyou.org.uk

Violence and gangs

victimsupport.org.uk/you-co
0808 1689 111

isthisok.org.uk

stgilestrust.org.uk
020 7708 8000

General Safety

childline.org.uk
0800 11 11

Suffolk.police.uk

extremedialogue.org

Relationships and Sex Education

brook.org.uk

refuge.org.uk

mankind.org.uk

actonitnow.org.uk
01270 250 390

Online safety

Ceop.police.uk

reportharmfulcontent.com

General Support for young people

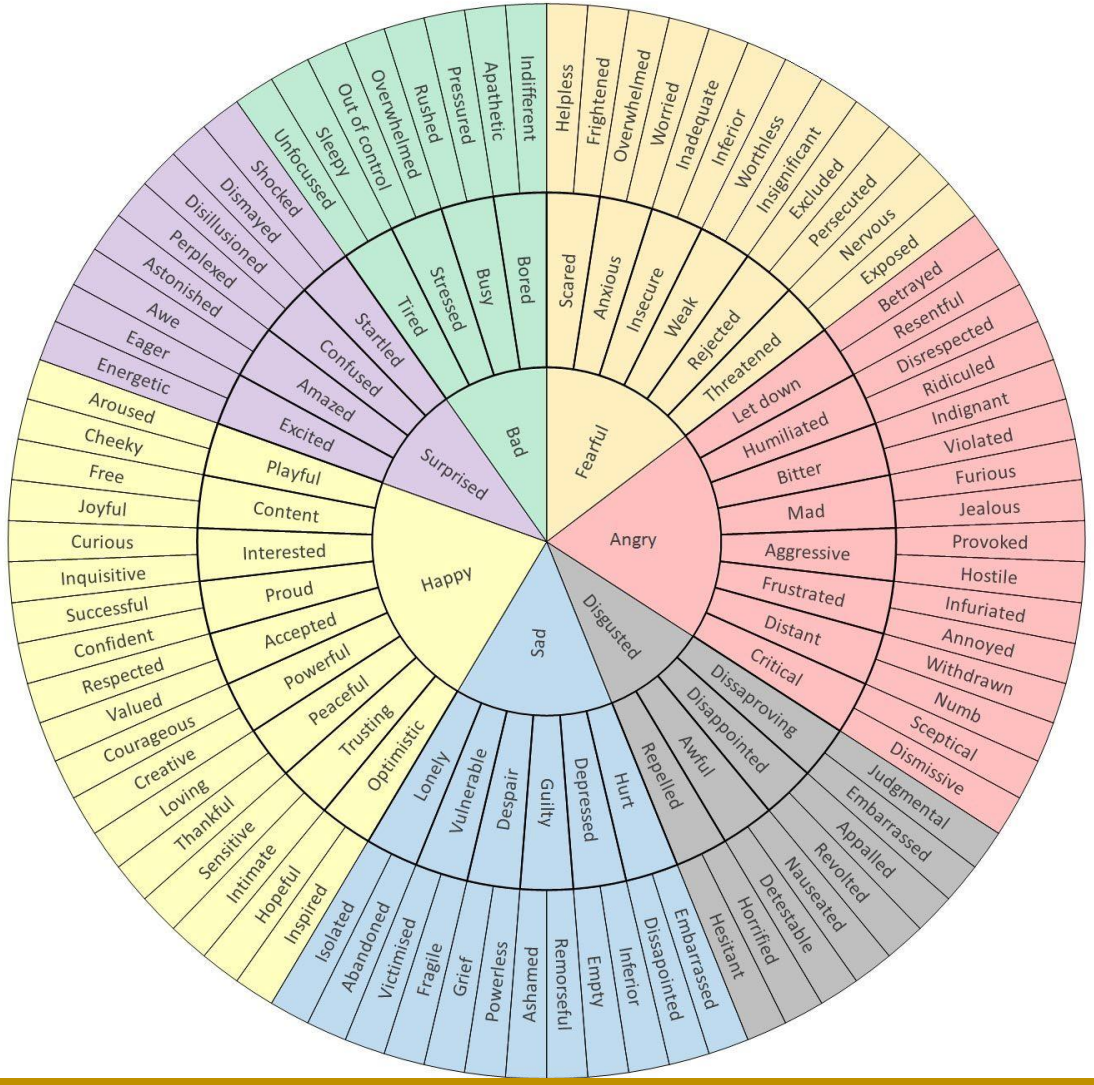
themix.org.uk
0808 808 4994

thesource.me.uk

Support for the LGBT+ Community

galop.org.uk

Further signposting support


Bad
Fearful
Angry
Disgusted
Sad
Happy
Surprised
Indifferent
Apathetic
Pressured
Rushed
Overwhelmed
Out of control
Sleepy
Unfocussed
Shocked
Dismayed
Disillusioned
Perplexed
Astonished
Awe
Eager
Energetic
Aroused
Cheeky
Free
Joyful
Curious
Inquisitive
Successful
Confident
Respected
Valued
Courageous
Creative
Loving
Thankful
Sensitive
Intimate
Hopeful
Inspired
Optimistic
Trusting
Peaceful
Powerful
Accepted
Proud
Interested
Content
Playful
Excited
Amazed
Confused
Startled
Bored
Busy
Stressed
Tired
Helpless
Frightened
Overwhelmed
Worried
Inadequate
Inferior
Worthless
Insignificant
Excluded
Persecuted
Nervous
Exposed
Scared
Anxious
Insecure
Weak
Rejected
Threatened
Let down
Humiliated
Bitter
Mad
Aggressive
Frustrated
Distant
Critical
Betrayed
Resentful
Disrespected
Ridiculed
Indignant
Violated
Furious
Jealous
Provoked
Hostile
Infuriated
Annoyed
Withdrawn
Numb
Sceptical
Dismissive
Dissaproving
Disappointed
Awful
Repelled
Judgmental
Embarrassed
Appalled
Revolted
Nauseated
Detestable
Horrified
Hesitant
Hurt
Depressed
Guilty
Despair
Vulnerable
Lonely
Embarrassed
Dissapointed
Inferior
Empty
Remorseful
Ashamed
Powerless
Grief
Fragile
Victimised
Abandoned
Isolated