

Year 10 Knowledge Organiser

Cycle 1 Half Term 1

Name:

Advisory group:



DIXONS
NEWALL GREEN
ACADEMY

How do I use my Knowledge Organiser?

- Each subject has a set of key questions and answers per week that link to what you are learning.
- Each week learn the labelled section for every subject you study.
- Use Read Cover Write Check to support with your learning, as well as any other strategies you know such as revision cards or peer quizzing.
- You will be tested each week during a Do Now on the section of the Knowledge Organiser you have learned.
- Scores will be taken in and tracked after each Do Now.
- During week 6 there will be a larger quiz testing you on all 5 previous weeks of the Knowledge Organiser-this score will be recorded.

You should keep your Knowledge Organiser safe and will need to take it home.

Topic 1 Y10 | Art | Cycle 1

Week 1

Question	Answer
What is line?	A line is a mark made on a surface that joins different points. Lines can vary in length, width, direction and shape
What is tone?	Tone in art simply refers to how light or dark a colour is. Each colour has an almost infinite number of tones.
What is shape?	An element of art that is two-dimensional, flat, or limited to height and width
What is form?	Form in art refers to three-dimensional shapes which have length, width and depth. 3D forms have volume and mass
What is texture?	Texture refers to how something feels, including its appearance and consistency

Week 2

Question	Answer
What is mark making?	Mark making describes the way artists produce different lines, dots, marks, patterns and textures. Mark making can be creative and experimental as it can be done with Any materials and tools.
What is composition?	Composition is how a drawing or artwork is arranged. The layout of the work on a background is important. Different elements may stand out or be noticed first. Carefully consider where to position shapes, lines, details and tones.
What is observational drawing?	Drawing from direct observation involves carefully looking at the subject and noticing and recording the shapes, details and tones that you see.

Week 3

Question	Answer
What are primary source images?	Photographs that you have taken yourself that fit your topic of research.
What are secondary source images?	Photographs that you have collected from the internet, magazines, newspapers, leaflets etc but you have not taken them yourself.
What is a contact sheet?	Contact sheets present photos in a tiny format, and this facilitates a view of the bigger picture in each photo. Reducing a photo to a thumbnail. You demonstrate the photographs that you have taken yourself on a contact sheet.

Week 4

Question	Answer
What is a stimulus?	A stimulus is anything that interests you and gives you ideas for your art project e.g. bugs and insects for Natural Forms or coral and reefs for Marine Life
What is annotation used for?	Annotation is a useful way to explain your thoughts and decisions to the examiner, but it can also be used to make notes about what you were thinking, how you achieved a technique, what you might do later to expand on an idea or any other note to yourself that might be useful.
What is the difference between commentary and evaluation annotation?	Commentary describes what has been done. Evaluation is reflective - it makes a judgement about what did and didn't work well, and why.

Week 5

Question	Answer
What does development mean?	Development is about selecting ideas, visual elements, compositions and techniques from this initial work and using them in new ways.
What does refinement mean?	Refinement does not involve major changes but is about making small changes which improve the idea in some way.
What does experimenting mean?	Experimenting with materials will help you decide on your strengths and which techniques you would like to develop in your portfolio and assignment.

Week 6

DNG Mastery
quiz



Topic 2 Y10 | Art | Half Term 1

Week 1

Question	Answer
Which media would you expect a ceramic artist to work with?	Clay
Weaving, macramé, batik and silk painting are all disciplines of which kind of medium?	Textiles
Photography, graphic software and paint programs are all good examples of what?	Digital Media

Week 2

Question	Answer
What is a cyanotype?	A photographic printing process that produces a blue-coloured image
What light source is used to expose a cyanotype print?	Ultraviolet (UV) light, usually from the sun
After exposure, what is used to develop and reveal a cyanotype image?	Water

Week 3

Question	Answer
What is monoprinting?	A printmaking process that creates a unique, one-off image
What material is typically carved when making a lino print?	Linoleum
What tool is used to roll ink evenly onto a lino block or printing plate?	A brayer (roller)

Week 4

Question	Answer
Why might an artist use masking fluid in a drawing?	To keep one area of the drawing clean
Many fields outside of art, such as science technology, also produce drawings. These may be referred to as what?	Technical drawings
What are hatching and cross-hatching?	Groups of parallel lines in differing directions

Week 5

Question	Answer
What is the name for a quick, unrefined drawing?	A sketch
What does the term 'monochrome' mean?	Monochromatic works use either one colour, or shades of a colour and can apply to painting, drawing or photography
The term is the vanishing point?	The point on the work which appears to be furthest away from the viewpoint

Week 6

DNG Mastery
quiz



Topic 1 Y10 | Drama | Half Term 1

Week 1

Question	Answer
What is the name of the C1 unit?	Devising drama
What is the focus on the C2 unit?	Scripted performance
What is the focus of the set text?	Noughts and Crosses
What is the C3 unit?	Examination Unit and Live Review

Week 2

Question	Answer
What is Brecht's theatre called?	Epic Theatre
What is the aim of epic theatre?	To make the audience think
What does Verfremdungseffekt mean?	To distance the audience
What does narration mean	To tell the story

Week 3

Question	Answer
What is Stephen Berkoff's theatre called?	Total Theatre
What is total theatre?	Style of drama where the actor becomes everything
What are rhapsodic vocals?	Vocals or sound effects which are melodic
What is Berkoff theatre intentions?	To give the audience a sensory experience

Week 4

Question	Answer
What is Artaud's style of theatre called?	Theatre of Cruelty
What is the intention of Artaud's theatre?	To make the audience feel uncomfortable.
What lighting is signature of Artaud's style?	Strobe / red
Is Artaud drama abstract or naturalistic?	Abstract
What staging works well for Artaud drama?	Thrust

Week 5

Question	Answer
What is physical theatre?	Drama which uses primarily movement
Who are Frantic Assembly?	Theatre company famous for directing Curious Incident
What is a chair duet?	Sequence of movement to communicate a relationship.
What is body as props?	Using movement to create props.
Which arts subject links to physical theatre?	Dance.

Week 6

DNG Mastery
quiz



Topic 2 Drama 10 | Devising Drama

Week 1

Question	Answer
What does devising drama mean?	Drama you create yourself.
What is a stimulus?	Starting point for the drama?
Give 3 examples of stimulus.	Image, quote, song.
Which practitioners can you choose from?	Brecht, Artaud or Berkoff.

Week 2

Question	Answer
What are good examples of research for devising drama?	Facts, case studies, images.
What is a historical drama?	Drama about a real event from the past.
What is a final idea?	The main idea for a performance.
What does a strong idea contain?	Scope for a strong performance using real facts.

Week 3

Question	Answer
What is the name of performing more than one role?	Multi-rolling.
How do you create the structure of the performance?	Storyboard ideas using mapping.
What does a strong opening contain?	Entices the audience like an opening trailer.
What does each character need in the performance.	A monologue.

Week 4

Question	Answer
How many practitioner or genre techniques are needed?	At least 4.
What must you submit to the lighting operator?	A technical script.
What is improvisation?	Using role play to create the drama.
What is technical theatre?	Sound effects and lighting.
What staging can you choose?	Thrust, proscenium, traverse or theatre in the round.

Week 5

Question	Answer
What is a rehearsal?	The act of practicing the performance?
What are costumes?	Clothing worn by the actors.
What is a tech run?	Performing the drama with the lighting and sound cues.
What are the props?	Using movement to create props.
What are the cues?	The prompt for a lighting or sound change.

Week 6

DNG Mastery
quiz



Topic 1 – Macbeth - Y10 | English | Half Term 1

Week 1

Question	Answer
When was Macbeth written?	Macbeth was written in 1606, during the reign of King James I. This was known as the Jacobean period.
What was the Divine Right of Kings?	Divine Right asserts that monarchs were appointed from God above, and that any attempt to question them was to question God himself. King James I often quoted Divine Right to cement his place on the throne.
What is the Great Chain of Being?	A historical worldview that arranged all life and matter in a strict hierarchy, with God at the top. The chain cannot be broken, otherwise disorder will take over.
What is patriarchy?	A system of society or government in which men hold the power and women are largely excluded from it. Women are considered inferior.
What is a tragedy?	A play dealing with tragic events and having an unhappy ending, especially one concerning the downfall of the main character.

Week 2

Question	Answer
What is a tragic hero?	At the centre of a tragedy is its hero, the main character, or protagonist. The tragic hero is a person of high rank who will experience a downfall, like Macbeth.
What is 'hamartia'?	An error in judgement or a weakness in character such as pride or arrogance. The hamartia of the tragic hero helps bring about their downfall. Macbeth's hamartia is his 'vaulting ambition'.
What is 'hubris'?	An abstract noun meaning excessive pride or confidence. A 'hubristic' person is someone who has excessive pride or confidence.
What is the meaning of 'peripeteia'?	A turning point in a text; a reversal of fortune. For Macbeth, this is the moment he murders Duncan, creating chaos in Scotland and destroying Macbeth's inner peace.
What is the meaning of 'anagnorisis'?	A moment of recognition or realisation. Macbeth experiences this when Malcolm's forces are closing in: he realises the witches' prophecies were tricks designed to bring his ruin.

Week 3

Question	Answer
How is Macbeth presented in Act 1 scene 2?	Macbeth is presented as a fearless warrior on the battlefield. Violent verbs like 'unseam'd' and 'carved' show 'brave Macbeth' is violent but loyal, conforming to expectations of masculinity.
What titles does Macbeth have throughout the play?	Macbeth is first the Thane of Glamis, then becomes Thane of Cawdor, then finally is crowned King of Scotland. He is also described as 'peerless', but by the end is dismissed as a 'dead butcher'.
What is 'regicide'?	The act of killing a King. The play warns against committing this mortal sin, by illustrating Macbeth's descent into damnation.
What does 'merciless' mean?	Displaying no compassion or forgiveness towards someone whom it is within one's power to punish or harm (adjective).
What is equivocation?	The use of ambiguous or unclear language to conceal the truth or to avoid committing to something. The witches equivocate with Macbeth.

Week 4

Question	Answer
What prompted James I's fascination with witchcraft?	Violent storms disrupted his future wife's voyage to Scotland. Believing witches had cursed him, he led Scotland's first large-scale witch hunts and wrote <i>Daemonologie</i> in 1597.
How would a Jacobean audience react to witches?	In Shakespeare's time, people strongly feared witchcraft. Thousands, mainly women, were accused and executed. In <i>Macbeth</i> , the witches reflect beliefs that they controlled the weather, caused disasters and served the Devil.
Why is the line 'fair is foul and foul is fair' important in the play?	"Fair is foul, and foul is fair" introduces the theme of appearance versus reality , showing that evil can disguise itself as good and foreshadowing the chaos caused by Macbeth's ambition.
What is a prophecy?	A prediction of what will happen in the future.
What is 'duplicity'?	The act of misleading others; being two-faced, dishonest or deceitful.

Week 5

Question	Answer
What was expected of women in Jacobean society?	Society at the time was patriarchal. Women belonged to their fathers (or brothers) and then their husbands. They were not permitted to own land or enter most professions. They were expected to bear children and be gentle.
How does Lady Macbeth subvert (go against) expectations of women?	Lady Macbeth subverts the stereotype of femininity by embodying the power a Jacobean audience were concerned women could exert when not closely controlled.
How does Lady Macbeth's language show her desire for power?	Lady Macbeth's imperatives 'unsex' show her desire for masculine power. Lady Macbeth uses violent verbs ('pluck'd' and 'dashed') and questions Macbeth's masculinity to manipulate him into killing Duncan.
What is the meaning of 'manipulative'?	Exercising dishonest or unfair control or influence over a person or situation (adjective).
What is the meaning of 'emasculat'?	To deprive (a man) of his male role or identity (abstract noun).

Week 6

DNG Mastery quiz



Topic 2 – Macbeth - Y10 | English | Half Term 1

Week 1		Week 2		Week 3	
Question	Answer	Question	Answer	Question	Answer
What does Macbeth see on his way to murder Duncan?	Macbeth hallucinates, saying 'is this a dagger I see before me?' The dagger, a symbol of violence, appears to lead him to Duncan, highlighting his weak character and ability to be manipulated.	What is the significance of the line 'O full of scorpions is my mind!'?	Macbeth says this to Lady Macbeth. The metaphor exposes the poisonous, dangerous influence of his ambition and his inner turmoil.	What three prophecies do the witches give Macbeth in Act 4 scene 1?	"Beware Macduff; / Beware the Thane of Fife." "None of woman born / Shall harm Macbeth." "Macbeth shall never vanquish'd be until / Great Birnam Wood to high Dunsinane Hill / Shall come against him."
How does Macbeth feel after the murder?	Macbeth is plagued by guilt after the murder - worried he has murdered ' sleep ' (peace) and that he won't get the blood off his hands. Blood represents guilt which cannot easily be erased from the conscience.	How has Macbeth's relationship with his wife changed in Act 3?	Macbeth plans to have murderers kill Banquo but tells Lady Macbeth to be 'innocent of the knowledge' – the start of a role reversal between the two. He no longer shares his secrets with her; she is no longer his 'dearest partner in greatness.'	How does Macbeth's violence increase in act 4?	Macbeth orders for all of Macduff's family to be slaughtered. When Macduff's child is murdered, he is called an 'egg' and 'fry' emphasising his youth and innocence, and showing that Macbeth's acts of tyranny have worsened .
Why is Lady Macbeth's line 'a little water clears us of this deed' important in the play?	Her statement shows how she assumes control after straight after the murder, but foreshadows her own madness later when she cannot wash the blood from her hands.	How does Banquo appear at the banquet?	Banquo's ghost appears shaking his 'gory locks'. Banquo's ghost could symbolise Macbeth's guilt, insecurity or his psychological decline .	Where has Macduff gone in Act 4, and why?	Macduff has gone to England, to find Duncan's son Malcolm and gather an army to overthrow Macbeth and undo the damage done to Scotland.
What unnatural events happen after the murder?	Unnatural events like an eclipse, severe storms and horses eating each other reflect the how Macbeth's actions have disrupted the natural order.	What is a 'soliloquy'?	A dramatic term where one character speaks alone to the audience. In <i>Macbeth</i> , soliloquies reveal Macbeth's unstable state of mind and inner conflict.	What is the meaning of 'tyrannical'?	A tyrannical leader is characterised as a cruel or oppressive leader.
What does 'ominous' mean?	Giving the worrying impression that something bad is going to happen; synonyms are 'inauspicious' or 'foreboding'.	What is an 'apparition'?	A ghost or ghostlike image of a person.	What is a 'despot'?	A ruler or other person who holds absolute power, typically one who exercises it in a cruel or oppressive way. Macbeth can be described as despotic.
Week 4		Week 5		Week 6	
Question	Answer	Question	Answer	DNG Mastery quiz 	
What has happened to Lady Macbeth's mental state in Act 5?	Lady Macbeth goes mad. She is seen sleepwalking and is convinced she cannot get a spot of blood off her hand, repeating 'out damned spot, out I say!' This is in contrast to her assured reaction after Duncan's death.	Why is the theme of appearance and reality important in the play?	The theme of appearance and reality shows how deception hides the truth. Characters present false appearances to conceal their intentions, leading to betrayal, confusion, and tragedy. This is seen when Lady Macbeth tells Macbeth to " <i>Look like th'innocent flower, / But be the serpent under't.</i> "		
How does Macbeth react to his wife's death?	Rather than showing any grief, Macbeth responds with apathy (a lack of concern), saying she 'should have died hereafter', meaning her death could have been better timed.	What is the significance of Banquo in the play?	Banquo is significant because he acts as Macbeth's moral foil: while both hear the witches' prophecies, Banquo resists evil and remains honourable. His descendants are prophesied to become kings, highlighting Macbeth's insecurity and ambition. James I traced his line to Banquo.		
Where does Macbeth begin to show despair ?	Macbeth reflects on life as short and meaningless, comparing it to a 'poor player' and a 'brief candle'. This shows how pointless his tyrannical actions have been .	What is the significance of Macduff in the play?	Macduff represents justice, loyalty, and the restoration of order. Unlike Macbeth, he puts Scotland's welfare above personal ambition. His determination to avenge his family drives the play's resolution, and he ultimately fulfils the prophecy by defeating Macbeth. He was 'from his mother's womb untimely ripped.'		
Who kills Macbeth?	Macbeth is convinced he has a 'charmed life' showing his hubris (he thinks he is invincible) but he is killed by Macduff, who was 'untimely ripped' from his mother's womb.				
What is 'nihilism'?	The rejection of all religious and moral principles, in the belief that life is meaningless.				

Topic 1 Y10 | Enterprise | Half Term 1

Week 1

Question	Answer

Week 2

Question	Answer

Week 3

Question	Answer

Week 4

Question	Answer

Week 5

Question	Answer

Week 6

DNG Mastery
quiz



Topic 2 Y10 | Enterprise | Half Term 1

Week 1

Question	Answer

Week 2

Question	Answer

Week 3

Question	Answer

Week 4

Question	Answer

Week 5

Question	Answer

Week 6

DNG Mastery
quiz



Topic 1 – Natural Hazards - Y10 | Geography | Half Term 1

Week 1

Question	Answer
The four layers of the Earth are...	Crust, Mantle, Inner core and Outer Core
Name 2 differences between continental and oceanic plates	Oceanic = younger & more dense (Basalt) Continental = older & less dense (Granite)
What is a destructive plate margin?	When 2 plates move towards each other and the oceanic plate subducts under the continental
What is a constructive plate margin?	When 2 plates move away from each other and a gap allows volcanoes
What is a conservative plate margin?	When 2 plates slid past one another. Friction = pressure

Week 2

Question	Answer
How many people were killed in L'Aquila 2009?	308
How many buildings destroyed in L'Aquila 2009?	10000
How many people homeless in L'Aquila 2009?	67,500
What was an environmental impact from L'Aquila 2009?	Landslide
How many people killed in Haiti 2010?	220,000
How many hospitals destroyed in Haiti 2010?	8
How many people were unemployed from Haiti 2010? (%)	20%
How many people didn't have access to food, water and electricity in Haiti 2010	2 million

Week 3

Question	Answer
How much money did the Red Cross raise for L'Aquila 2009?	£171,000
What did the Red Cross set up for L'Aquila 2009?	Temporary hospitals
How many new houses were built for L'Aquila 2009?	20,000
How did the Government help out the citizens of L'Aquila in 2009/2010?	No taxes
How much money did USA raise for Haiti 2010?	\$100 million
What did the Red Cross set up for Haiti 2010?	Temporary hospitals
What did the Government encourage and fund for the citizens in Haiti 2010?	Relocation
How many buildings were repaired for Haiti 2010?	¾ / 75%

Week 4

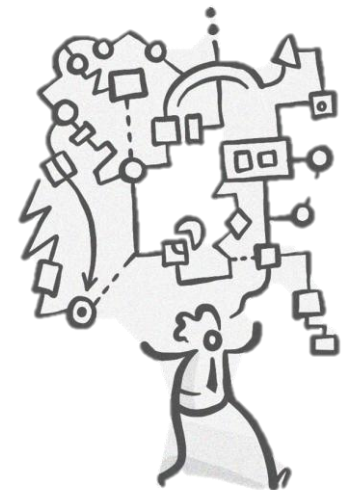
Question	Answer
A plate boundary/margin is...	When two plates meet
What are the two most important words for explaining how an earthquake is formed?	Friction and pressure
What is sea floor spreading?	Where new oceanic crust is formed as the plates move away from each and magma solidifies
At what plate margin is new land formed?	Constructive
Which plate margin do you get just earthquakes?	Conservative

Week 5

Question	Answer
State 2 reasons why people still live in areas that are prone to tectonic hazards	Family/friends, lack of education, lack of money, tourism
Identify 1 way people can predict earthquakes	Animals, seismometers and previous trends
What occurs on 1 st September in Japan?	National earthquake drills
State one way that earthquake proof buildings protect people and buildings	Shutters over computer-controlled weights on the roof
What is a hazard map?	Where we map out where hazards hit and avoid building infrastructure there

Week 6

DNG Mastery quiz



Topic 2 – Changing economic world - Y10 | Geography | Half Term 1

Week 1

Question	Answer
Nigeria is located...	West Africa
Why is Nigeria regionally and globally important?	Regional = Highest GDP in Africa Global = Nollywood
What are Nigeria's main exports?	China and USA
Nigeria has a multi-faith population. This means that...	It is diverse. Yoruba and Christianity
A stable government was established in...	1999

Week 2

Question	Answer
What is a TNC?	A transnational corporation (global company)
Shell oil drills oil in the...	Niger Delta
Where is Shell Oil's headquarters?	UK and Netherlands
What is industrial growth?	Development of factories
What is urban growth?	Development and sprawl of cities

Week 3

Question	Answer
How many direct and indirect jobs in Nigeria from Shell?	65,000 and 250,000
using the above This means that...	More jobs & income = boosts the economy = more taxes paid = GDP
How much tax did Shell pay in 2013?	£20 billion
Oil revenue makes up what % of Nigeria's GDP?	75%
using the above This means that...	GDP = funding into health, education and infrastructure = better transport

Week 4

Question	Answer
What are the working conditions of Shell in Nigeria?	Poor and low wage
using the above This means that...	Workers work long hours = poor health = limited long-term job security
Which region has Shell benefitted?	Niger Delta
For the Bodo oil spill: what year? How much oil?	2008 and 11 million litres
How much compensation did Shell agree to pay for the Bodo oil spill	£55 million

Week 5

Question	Answer
Define aid	Short term or long-term help (e.g. money/education/rebuilding)
Suggest why Nigeria needs aid	Because 60% of Nigerians live on less than \$1 a day
How does 'Nets for Life' help Nigerians?	Provide education and mosquito nets
How does the Aduwan centre help Nigerians?	Trains local women about vaccinations and tests for HIV
How did the World Bank support Nigeria in 2014?	Gave \$500 million to fund business loans

Week 6

DNG Mastery quiz



Component 1 Y10 | Travel and Tourism | Half Term 1

Week 1: Tour Operators

Question	Answer
1. What is tourism?	The movement of people away from where they live for leisure or business purposes.
2. What is a tour operator?	A company that assembles and sells package holidays.
3. What does a tour operator include in a package holiday?	Flights, accommodation and transfers.
4. What is a specialist tour operator?	A tour operator that provides holidays for a specific market or interest.
5. Name two UK tour operators.	TUI and Jet2holidays.

Week 2: Travel Agents

Question	Answer
1. What does a travel agent do?	Gives advice and helps customers book travel.
2. Give one role of a travel agent.	Booking flights or accommodation.
3. What is an ancillary service?	An extra service such as travel insurance or car hire.
4. What does a business travel agent do?	Arranges travel for business employees.
5. Name one type of travel agent.	Retail, online, independent or business travel agent.

Week 3: Accommodation Providers

Question	Answer
1. What is an accommodation provider?	A business that provides lodging for travellers.
2. Name three types of accommodation provider.	Hotel, hostel and campsite.
3. What is the difference between catered and self-catered accommodation?	Catered includes meals; self-catered does not.
4. Give two facilities found in many hotels.	Restaurant and 24-hour reception.
5. Give one way hotels can be sustainable.	Encouraging guests to reuse towels.

Week 4: Transport Operators (Airline)

Question	Answer
1. What does a transport operator do?	Moves people or goods from one place to another.
2. How long is a medium-haul flight?	3–6 hours.
3. Name two products or services offered by full-service airlines.	Food and entertainment.
4. How do airlines keep passengers safe?	Safety briefings and security screening.
5. What is a low-cost airline?	An airline with lower fares and fewer included services.

Week 5: Transport Operators (Rail etc)

Question	Answer
1. Who owns and maintains the UK rail network?	Network Rail.
2. Give one way train companies reduce their environmental impact.	Using regenerative braking or electric trains.
3. Name one ferry company.	Stena Line or Irish Ferries.
4. What safety equipment is provided on ferries?	Life jackets and lifeboats.
5. Why is road travel popular with tourists?	It is flexible and convenient.

Week 6

DNG Mastery quiz



Component 1 Y10 | Health and Social Studies | Half Term 1

Week 1

Question	Answer
What are the 6 life stages?	Infancy, Early childhood, Adolescence, Early adulthood, Middle adulthood, Later adulthood
Define 'growth'.	Growth is a form of physical development that involves increase in body size. Increase in height and weight are both example of growth.
Define 'development'.	Development involves gaining new skills and abilities, such as learning to read and write.
Give two examples of intellectual development.	Reading a book, going to school, learning new skills.
Give two examples of social development.	Making friends, being with family.

Week 2

Question	Answer
Define 'gross motor skills'.	Gross motor skills are used to coordinate large muscles (e.g. moving arms and legs).
Define 'fine motor skills'.	Fine motor skills are used to coordinate small muscles (e.g. moving and and fingers).
Name the tree types of play in early childhood.	Solitary, Parallel and Social
In infancy, emotional development is based on what?	Security and contentment.
Give an example of social development in early childhood.	Making friends at school, spending time with family, starting clubs / hobbies.

Week 3

Question	Answer
Define 'Primary sexual characteristics'.	Essential for reproduction
Define 'Secondary sexual characteristics'.	Not essential for reproduction
How can having a job support emotional development?	Have security, have money to do things they enjoy, meet new people and feel content with their life.
How does intellectual development improve during early adulthood?	Further education, get a job, reading, learning new skills.
Give one example of independence during early adulthood.	Moving out from home, seeing friends, freedom of choice.

Week 4

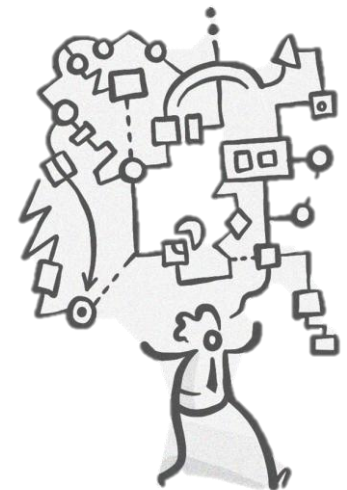
Question	Answer
What is the age range for middle adulthood?	45-65
Name 3 effects of the menopause on women.	hot flushes , difficulty sleeping , joint stiffness and pains , headaches low mood/anxiety
In later adulthood, how can someone improve their intellectual development?	Learn a new skill (e.g. golf), read, do puzzles...
What effect does retiring have on social development?	Won't see as many people, might join a club and meet new people, have more time to socialise
Define 'bereavement'.	Coming to terms with the death of a loved one.

Week 5

Question	Answer
Name 3 physical factors affecting growth and development.	Inherited conditions, Experience of illness, Disability, Mental ill health, Sensory impairments
Name 2 inherited conditions.	Sickle Cell, Cystic fibrosis, Muscular dystrophies, Marfan syndrome, Huntington's disease
How can nutrition affect intellectual development?	Helps improve concentration.
How can physical activity improve emotional development?	Boosts self-esteem give individuals a feel good factor (endorphins).

Week 6

DNG Mastery quiz



Topic 1 Y10 | History | Half Term 1

Week 1

Question	Answer
When did Hitler become Chancellor?	January 30th 1933
Which events helped Hitler to consolidate his power in 1933?	The Reichstag Fire and its consequences; the Enabling Act, the law to ban political parties and trade unions.
Which events helped Hitler to consolidate his power in 1934?	The Night of the Long Knives, the army oath, the death of Hindenburg
What examples are there of a terror state?	SS (Himmler), SD (Heydrich), Gestapo (relied on denunciations)
What examples are there of propaganda?	Speeches, radio, newspapers, censorship, Nuremberg Party Rally

Week 2

Question	Answer
What did persecution look like towards the Jews, 1933-1935?	April 1933 Boycott, Nuremberg Laws 1935
What did persecution look like towards the Jews, 1935-1939?	Kristallnacht 1938, forced emigration (Austria and Czechoslovakia) 1939
What were the ghettos?	Small, enclosed places in cities where Jews were forced to live
What was life like in the ghettos?	Unequal, lack of food and nutrition, dirty, overcrowding, led by the Judenrat
How did the invasion of the Soviet Union lead to the Holocaust?	Four Einstazgruppen squads rounded up and shot 1.5 million Jews

Week 3

Question	Answer
What was the Wannsee Conference?	A meeting led by Heydrich in January 1942
Why was the meeting important?	A decision was reached that all Jews within Nazi occupied Europe should be moved to the 'East' for 'resettlement'
Which extermination camps were in operation from 1942 onwards?	Treblinka, Sobibor, Majdanek, Belzec
How were Jews murdered at Auschwitz?	Jews were directed to the gas chambers and then four crematoria
How did Germans respond to Nazi rule?	People responded with a mixture of collaboration and resistance

Week 4

Question	Answer
What was the role of the Sonderkommando?	Their role was to remove dead bodies and take them to the crematoria
Did the Jews resist?	Escapes took place at Auschwitz, Sobibor. Resistance took place during the Warsaw Uprising
What is a popular myth about the mentality of the perpetrators?	A myth is that the SS were robotic killers
What was the reality?	The reality was that many soldiers believed that the Jews were an enemy which should be exterminated
What does the findings of Police Battalion 101 reveal?	Reveals that peer pressure and conformity were powerful motivators

Week 5

Question	Answer
What is a war economy?	Where the nation's economy is geared towards war
Who was made Minister for Armaments and War Production?	Albert Speer
How were the Nazis successful in the first two years of WW2?	Defeated Poland in 6 weeks (1939); defeated France in 3 weeks (1940)
Which battles were turning points in WW2?	Stalingrad and Kursk
How did the war impact upon civilians?	Rationing and bombing

Week 6

DNG Mastery
quiz



Health and Safety in H&C Y10 | Hospitality and Catering| Half Term 1

Week 1

Question	Answer
What does HASAWA stand for?	Health and Safety at Work Act 1974.
What is the main purpose of HASAWA?	To protect the health, wellbeing and safety of employees, customers and others.
What must employers assess and review?	Risks that could cause injuries in the workplace.
What should employers provide to workers?	Health and safety training.
What should employees do if equipment is faulty?	Inform their employer immediately.

Week 2

Question	Answer
What is a hazard?	Something that can physically harm someone or damage their health.
What is meant by level of risk?	The likelihood of a hazard causing harm or injury.
Name the three levels of risk.	Low, Medium and High.
What is a control measure?	An action taken to reduce or prevent a hazard.
Why are risk assessments reviewed regularly?	To keep them up to date and identify new risks.

Week 3

Question	Answer
What does COSHH stand for?	Control of Substances Hazardous to Health
Give two examples of hazardous substances.	Cleaning products and gases.
What does PPE stand for?	Personal Protective Equipment.
Give two examples of PPE used in catering.	Chef's jacket and protective footwear.
Why must employees wear PPE?	To reduce the risk of injury and illness.

Week 4

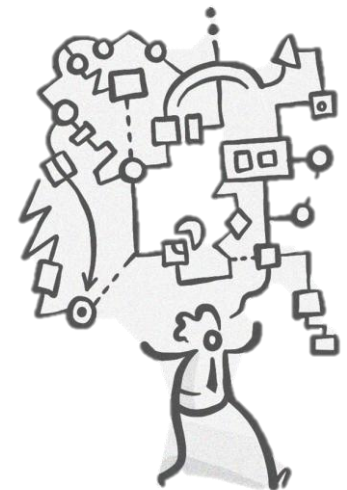
Question	Answer
What is manual handling?	Lifting, carrying or moving items safely.
How should you lift safely?	Keep your back straight and the item close to your body.
Why should heavy items be stored on low shelves?	To reduce the risk of injury when lifting.
What does RIDDOR stand for?	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013.
Where should employees record workplace injuries?	In the accident report book.

Week 5

Question	Answer
Why is an accident form completed?	To record accidents and help prevent them happening again.
What information should an accident form include?	Details of the accident, injury and hazard.
What should be identified in every risk assessment?	Hazards, level of risk and control measures.
Give one example of a workplace hazard.	Slips, trips, falls, burns or electric shocks.
Who is responsible for health and safety training?	The employer.

Week 6

DNG Mastery quiz



Food Safety in H&C Y10 | Hospitality and Catering| Half Term 1

Week 1

Question	Answer
What is food contamination?	The presence of harmful substances or organisms in food.
Name the four main types of contamination.	Bacterial, chemical, physical and allergenic.
What is cross-contamination?	The transfer of harmful bacteria or allergens from one food, surface or person to another.
Why are high-risk foods dangerous?	They provide ideal conditions for bacteria to grow.
Name two examples of high-risk foods.	Cooked meat and dairy products.

Week 2

Question	Answer
How can cross-contamination be prevented?	By washing hands and using separate equipment for raw and cooked foods.
Why are colour-coded chopping boards used?	To prevent cross-contamination between foods.
When should food handlers wash their hands?	Before preparing food and after handling raw foods, rubbish or using the toilet.
What is personal hygiene?	Practices that keep food handlers clean and reduce contamination risks.
Why should cuts be covered with blue plasters?	So they can be easily seen if they fall into food.

Week 3

Question	Answer
What temperature should a refrigerator be kept at?	0–5°C.
What temperature should a freezer be kept at?	-18°C or below.
What minimum core temperature must cooked food reach?	70°C for at least 2 minutes.
What is hot holding?	Keeping hot food at 63°C or above before service.
Why is temperature control important?	It prevents bacteria multiplying.

Week 4

Question	Answer
What are common symptoms of food poisoning?	Nausea, vomiting and diarrhoea.
What visible symptom may indicate an allergic reaction?	Swelling, rash or red skin.
What is anaphylaxis?	A severe allergic reaction that can be life-threatening.
What should be used to treat anaphylaxis?	An adrenaline injector (e.g. EpiPen).
Why is recognising symptoms important?	To help someone suffering from food-induced ill health.

Week 5

Question	Answer
What is physical contamination?	Foreign objects entering food.
Give two examples of physical contamination.	Hair and broken glass.
What is chemical contamination?	Harmful chemicals entering food.
How can physical contamination be reduced?	By keeping preparation areas clean and following hygiene rules.
Why must food deliveries be checked?	To ensure food is safe, undamaged and at the correct temperature.

Week 6

DNG Mastery quiz



Topic My Life Y10 | Mandarin | Half Term 1

Week 1

Question	Answer
How do you use 喜欢?	喜欢 means "to like". It is followed by a noun or verb phrase. Example: 我喜欢音乐。
How do you ask "What do you like?"	你喜欢什么?
What does 最 mean?	最 means "most" and is used for favourites. Example: 我最喜欢中文。
How do adjectives work as verbs in Chinese?	Adjectives can act as verbs, so you do not use 是 before them. Use Subject + 很 + Adjective. Example: 狗很大。

Week 2

Question	Answer
Why is 很 often used before an adjective?	很 usually means "very", but it is often used to make the sentence sound natural. Example: 我很忙。
How do you use 是?	是 means 'yes', 是 cannot be used to link a noun and an adjective.
How do you use 有?	有 means "to have". It is used to say what someone has. Example: 我有一个哥哥。
How do you use 在?	在 means "in", "at" or "to be located in". It is used before a place. Example: 我住在英国。

Week 3

Question	Answer
How do you ask a yes/no question using positive-negative form?	Example: 你喜欢不喜欢音乐?
How do you use 跟.....一起?	It means "together with". Example: 我跟朋友一起学习。
How do you say "more than" when talking about time or quantity?	Add 多 after the measure word. Example: 她在法国住了一个多月。
How do you use 因为.....所以.....?	It means "because...so...". Example: 因为很有趣, 所以我喜欢中文。

Week 4

Question	Answer
What is the difference between 常常 and 每天?	常常 = often; 每天 = every day. Example: 我常常打篮球。我天天做作业,
How do you use 也?	也 means "also". Example: 我也喜欢唱歌。
What is the word order for talking about daily routines?	Follow Subject + Time + Verb. Time always comes before the action in Chinese. Example: 妈妈六点半起床。
What is the word order for transport sentences?	Time + Manner + Place. Example: 我每天坐公共汽车来学校。

Week 5

Question	Answer
What does 怎么 mean?	怎么 means "how" and is often used when asking about transport.
How do you use frequency words in Chinese?	Frequency words usually come after the subject and before the verb. 一般, 天天, 很少 Example: 我每天上学。
How do you use 坐 to talk about transport?	坐 means "to travel by" or "to take" a form of transport. Example: 我坐公共汽车去学校。
How do you use 骑 to talk about transport?	骑 means "to ride" and is used for transport that you ride yourself, such as a bicycle or horse. Example: 我骑自行车去学校。

Week 6

DNG Mastery quiz



Topic My Life Y10 | Mandarin | Half Term 2

Week 1

Question	Answer
How do you use 以后？	以后 means "after". It is placed after an action to show what happens next. Example: 爸爸吃饭以后睡一个小时觉。
How do you use 以后 to talk about daily routines?	Use Action + 以后 + Next Action. Example: 我吃饭以后做作业。
How do you use 然后？	然后 means “then” or “after that”. It is used to link actions in a sequence. Example: 我下午三点放学，然后坐公共汽车回家。
What is the basic word order for daily routines?	Subject + Time + Action Time usually comes before the verb in Chinese. Example: 我七点起床。

Week 2

Question	Answer
How do you describe a person's height?	Use 个子 + 很 + adjective. Example: 弟弟的个子很矮。
How do adverbs make descriptions clearer?	Put them before the adjective. Examples: 很, 比较, 非常. 比较 means "quite" or "fairly". 非常 means "extremely"
How do you use 觉得？	觉得 means "to think/feel". Example: 我觉得数学很难。
What is the structure of 又...又...?	又...又... means “both...and...” and is used to describe two qualities at the same time. Subject + 又 + Adjective + 又 + Adjective. Example: 我觉得哥哥又矮又胖。

Week 3

Question	Answer
How do you use 有的时候？	有的时候 means "sometimes". It is used to talk about things that happen occasionally. Example: 我有的时候看电视。
How do you use 应该 to talk about what someone should be like?	应该 can be followed by an adjective to express what someone ought to be like. Example: 我觉得好朋友应该很快乐。
What does 比较 mean?	比较 means “quite”, “rather” or “fairly”. Put 比较 before an adjective. Example: 他比较聪明。
How do you describe people using adjectives?	Use adverb + adjective. Example: 她非常聪明。

Week 4

Question	Answer
How do you ask a yes/no question using positive-negative form?	Example: 你喜欢不喜欢音乐？他忙不忙？
How do you use 或者？	或者 means "or". Put 或者 between two words, phrases or options. Example: 放学以后，我做作业或者打篮球。
What is the structure of 不但.....而且.....？	不但.....而且..... means "not only... but also...". It is used to add extra information or emphasis.
How do you use 离？	离 means “from”, Place A + 离 + Place B + Adjective. 我家离学校很近。

Week 5

Question	Answer
How do you use 的时候？	It means "when". Example: 我做作业的时候听音乐。
What is the function of 过？	It shows past experience. Use 去过 + place. Example 我去过北京。
How do you use 打算？	打算 means "to plan to / going to". Example 我打算看电影。
When do you use a measure word?	Use a measure word after a number and before a noun. Example: 两个朋友。

Week 6

DNG Mastery quiz



Probability and Statistics Y10 | Maths | Half Term 1

Week 1

Question	Answer
A coin is flipped 50 times and lands on heads 28 times. What is the experimental probability of landing on heads?	$\frac{28}{50} = \frac{14}{25}$
A spinner is spun 80 times and lands on red 20 times. Based on the experiment, what is the probability of landing on red?	$\frac{20}{80} = \frac{1}{4}$
Two fair coins are tossed. What is the probability of getting two heads?	$\frac{1}{4}$
Two fair six-sided dice are rolled. What is the probability that the total is 8?	$\frac{5}{36}$
A bag contains red and blue counters. A counter is selected and replaced 100 times. A red counter is selected 65 times. Using the experimental probability, estimate how many times a red counter would be selected in 240 trials.	Experimental probability of red = $\frac{65}{100} = 0.65$ Estimated number of reds = $0.65 \times 240 = 156$

Week 2

Question	Answer
When finding the estimated mean from a grouped frequency table, what value do we use for each class?	The midpoint.
Complete the formula: Estimated Mean = $\frac{\Sigma(\text{midpoint} \times \text{frequency})}{\Sigma \text{frequency}}$	midpoint $\times$ frequency
A grouped frequency table has a total frequency of 50. What position is the median?	25th value (or 25.5th position)
In a grouped frequency table, which class contains the modal group?	The class with the highest frequency.
The lowest class boundary is 15 and the highest class boundary is 80. What is the estimated range?	$80 - 15 = 65$

Week 3

Question	Answer
What is cumulative frequency?	A running total of the frequencies.
The frequencies are 6, 8, 5, 7. What is the final cumulative frequency?	26
What are the five values needed to draw a box plot?	Minimum, Lower Quartile, Median, Upper Quartile, Maximum.
What does the box represent on a box plot?	The middle 50% of the data (from the lower quartile to the upper quartile).
How do you calculate the interquartile range (IQR)?	Upper Quartile – Lower Quartile.

Week 4

Question	Answer
What is the formula for speed?	Speed = Distance $\div$ Time
What is the formula for density?	Density = Mass $\div$ Volume
What is the formula for pressure?	Pressure = Force $\div$ Area
A car travels 120 km in 2 hours. What is its speed?	60 km/h
An object has a mass of 24 g and a volume of 8 cm ³ . What is its density?	3 g/cm ³

Week 5

Question	Answer
What is a line segment?	A part of a line with two endpoints.
What is the midpoint of a line segment?	The point exactly halfway between the endpoints.
What are the coordinates of the midpoint of the line segment joining (2,4) and (8,4)?	(5,4)
What is the length of a horizontal line segment from (3,2) to (9,2)?	Using Pythagoras, the length is 6
A line segment has endpoints (1,3) and (7,9). What is the midpoint?	(4,6)

Week 6

DNG Mastery quiz



Graphs Y10 | Maths | Half Term 1

Week 1

Question	Answer
A spinner is spun 60 times and lands on blue 15 times. What is the experimental probability of landing on blue?	$\frac{15}{60} = \frac{1}{4}$
From a grouped frequency table, what value do you use when calculating the estimated mean?	The midpoint
A box plot has a lower quartile of 18 and an upper quartile of 42. What is the interquartile range (IQR)?	$42 - 18 = 24$
An object has a mass of 45 g and a volume of 9 cm ³ . What is its density?	$45 \div 9 = 5 \text{ g/cm}^3$
Find the midpoint of the line segment joining (2,8) and (10,8)	

Week 2

Question	Answer
What is the general form of a straight-line equation?	$y = mx + c$
What does m represent in the equation $y = mx + c$?	The gradient
What does c represent in the equation $y = mx + c$?	The y-intercept
Find the gradient of the line through the points (1,3) and (5,11)	$m = \frac{11-3}{5-1} = \frac{8}{4} = 2$
A line has gradient 3 and passes through the point (0,-4). What is its equation?	$y = 3x - 4$

Week 3

Question	Answer
What is true about the gradients of parallel lines?	They are equal
A line has gradient 4. What is the gradient of a line parallel to it?	4
What is true about the gradients of perpendicular lines?	They are negative reciprocals of each other
A line has gradient 2. What is the gradient of a line perpendicular to it?	$-\frac{1}{2}$
Are the lines $y=3x+1$ and $y=3x-5$ parallel, perpendicular, or neither?	Parallel as they have the same gradient

Week 4

Question	Answer
What is the general form of a quadratic equation?	$y = ax^2 + bx + c$
What shape is the graph of a quadratic?	A parabola
How do you find the gradient of a curve at a specific point?	Draw a tangent and find its gradient.
What does the area under a velocity-time graph represent?	Distance travelled.
What does a positive gradient on a distance-time graph mean?	The object is moving forwards.

Week 5

Question	Answer
What does the gradient of a straight line tell you?	The rate of change (how steep the line is).
What is the equation of a straight line with gradient 3 and y-intercept 2?	$y=3x+2$
A line has gradient -2. What is the gradient of a line parallel to it?	-2
What shape is the graph of $y = x^2$	A parabola
What does the area under a velocity-time graph represent?	Distance travelled.

Week 6

DNG Mastery quiz



Topic 1 Y10 | Music | Half Term 1

Week 1

Question	Answer
What is pitch?	Pitch is how high or low a sound is.
What is duration?	Duration is the length of a note or sound.
What does tempo mean?	Tempo is the speed of the music.
What are dynamics?	Dynamics are the volume levels in music (loud or quiet).
What are the correct words for loud and soft?	<i>Forte</i> and <i>Piano</i>

Week 2

Question	Answer
What is timbre?	Timbre is the tone colour or quality of a sound that makes instruments and voices sound different.
What is structure?	Structure refers to the overall organisation and layout of a piece of music.
What is tonality?	Tonality is the system of keys and chords used in music. (major, minor, modal etc)
What is a melody?	A melody is a sequence of pitches that forms a tune.
What is harmony?	Harmony is created when two or more notes sound together.

Week 3

Question	Answer
What is unison	When performers play or sing the same notes together.
What is monophonic?	A single melody with no accompaniment.
What is polyphonic?	Two or more independent melodies played simultaneously.
What is homophonic?	Chordal – moving in harmony with same rhythm
What is melody and accompaniment?	Main melody line with backing

Week 4

Question	Answer
What does conjunct movement mean?	Conjunct movement is when a melody moves by step.
What does disjunct movement mean?	Disjunct movement is when a melody moves by leap.
What is an ascending melody?	A melody that moves upwards in pitch.
What is a descending melody?	A melody that moves downwards in pitch.
What does allegro mean?	Allegro means fast.

Week 5

Question	Answer
What does adagio mean?	Adagio means slow.
What does accelerando mean?	Accelerando means gradually getting faster.
What does rallentando (rall.) mean?	Rallentando means gradually getting slower.
What does forte (f) mean?	Forte means loud.
What does piano (p) mean?	Piano means quiet.

Week 6

DNG Mastery
quiz



Topic 2 Y10 | Music | Half Term 1

Week 1

Question	Answer
What does crescendo mean?	Crescendo means gradually getting louder.
What does diminuendo mean?	Diminuendo means gradually getting quieter.
What is imitation?	When a melody is repeated by another part shortly after it is first heard.
What is binary form?	A structure with two sections (AB).
What is ternary form?	A structure with three sections (ABA).

Week 2

Question	Answer
What is rondo form?	A structure where a recurring theme alternates with contrasting sections (e.g. ABACA).
What is a major key?	A key that generally sounds bright, happy, or positive.
What is a minor key?	A key that generally sounds sad, dark, or serious.
What is consonance?	Notes that sound pleasant and stable together.
What is dissonance?	Notes that sound tense or clashing together.

Week 3

Question	Answer
What is a drone?	A sustained note or chord played continuously.
What is syncopation?	Accenting weak beats or off-beats.
What is a cadence?	A musical phrase ending that gives a sense of pause or completion.
What is a perfect cadence?	A chord progression V-I that sounds finished.
What is an imperfect cadence?	A chord progression ending on V, creating an unfinished feeling.

Week 4

Question	Answer
What is rhythm?	Rhythm is the pattern of long and short sounds and silences in music.
What is pulse?	Pulse is the regular, steady beat that runs throughout a piece of music.
What is metre?	Metre is the organisation of beats into regular groups (bars).
What is a time signature?	A symbol at the start of the music that tells us how many beats are in each bar and what type of note receives one beat.
What does the top number of a time signature tell you?	The number of beats in each bar.

Week 5

Question	Answer
What does the bottom number of a time signature tell you?	The note value that receives one beat.
How many crotchet beats are there in 4/4 time?	Four crotchet beats per bar.
How many crotchet beats are there in 3/4 time?	Three crotchet beats per bar.
What is simple time?	A metre where each beat divides naturally into two equal parts.
What is compound time?	A metre where each beat divides naturally into three equal parts.

Week 6

DNG Mastery quiz



Topic 1 Y10 | PE | Half Term 1

Week 1

Question	Answer
Why do we warm up?	To prevent injury To get your body and mind ready for the activity
What is the definition of a 'team sport'	A sport played with at least one person
What is the definition of a 'individual sport'	A sport you compete by yourself
What three components are needed for a sport to be classed as a sport?	National governing body, Rules and regulations, To be played in a competitive environment

Week 2

Question	Answer
Identify 3 different team sports	Football, basketball, rugby, Volleyball, cricket
Identify 3 different individual sports	Rowing, athletics, badminton/ tennis (singles) Golf, boxing, archery
Name 3 benefits of playing sport	Improves fitness, , learn new skills meet new people, develop leadership skills, improved confidence and resilience
Define outdoor activities	Activities that are done outside and are adventurous.

Week 3

Question	Answer
Define outdoor activities	Activities that are done outside and are adventurous.
Name 3 outdoor activities	High ropes, white water rafting, mountain biking sailing, hiking, quad biking
What are the mental health benefits of taking part in outdoor activities	Improved self-confidence and Self esteem Meet new people Learn new skills Time away from life stresses and electronical devices
Why do we warm up	To prevent injury To get your body and mind ready for the activity

Week 4

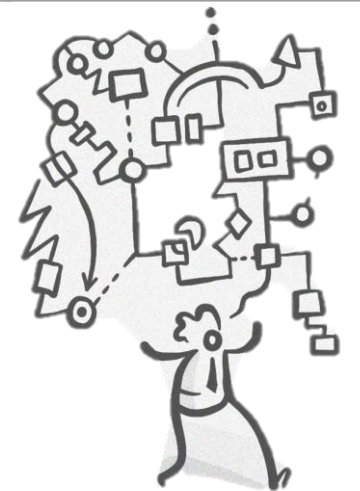
Question	Answer
Name a type of fitness class	Yoga – Pilates – Boot camp – Body combat
Name a gym exercise	Free weights – Resistance machines Treadmills Rowing machines
Name other fitness activities	Home work outs. Jogging , swimming. Online classes
What are the 3 types of sports provision	Public, private, voluntary
Define Public sector	The public sector includes anything owned by the government.

Week 5

Question	Answer
Give an example of activities provided by the public sector	After school clubs, fitness swimming clubs that are ran by local authorities.
Where does the money come from to provide the low-cost provision	Funding is provided by the government using money from tax's
List the advantages of the public sector	Low cost – Assessable for all – more people can participate. Wide range of sports available
List the disadvantages of the public sector	Limited range of equipment and facilities, can be old and need improving. Limited access to sports professionals such as PTs and physiotherapists.

Week 6

DNG Mastery quiz



Topic: Cell Biology Y10 | Science | Cycle 1

Tested Every Week In Class

Week 2

Question	Answer
Describe the differences between prokaryotic and eukaryotic cells	Prokaryotic cells are smaller and do not have a nucleus. Eukaryotic cells are larger, have DNA in a nucleus and have mitochondria
What is the role of the nucleus in eukaryotic cells?	It contains the DNA and controls the activities of the cell
What is the role of the chloroplasts in plant cells?	They contain chlorophyll which is the chemical that absorbs light for photosynthesis which makes food for the plant
Which 3 organelles are present in plant cells but not in animal cells?	Chloroplasts, cell wall & vacuole
Explain the adaptations of a sperm cell	They have a tail to swim to the egg They contain half of the genetic material. The head of the sperm contains enzymes which digest the egg's cell membrane.

Week 3

Question	Answer
What equation links actual size, image size and magnification?	Magnification = image size ÷ actual size
How do you calculate overall magnification from the eyepiece lens and the objective lens?	Overall magnification = eyepiece magnification x objective lens magnification
When making a slide of onion tissue, why is a drop of iodine placed onto the sample?	To stain the cells so they can be seen easily
When using a microscope, what do you need to do if the image is blurred?	Turn the focus wheel (coarse or fine) until the image becomes clear
When using a microscope, what do you need to do if the image is too small?	Change the objective lens to one with a more powerful magnification.

Week 4

Question	Answer
What is a stem cell?	It is a cell that has not yet undergone differentiation (specialisation) so can become a different type of cell
Where in humans can you find stem cells?	Embryonic stem cells are found in embryos. Adult stem cells that make blood cells are found in the bone marrow
What occurs during stage 1 of the cell cycle?	Cell grows, DNA is duplicated, more subcellular structures are made (mitochondria and ribosomes)
What occurs during stage 2 of the cell cycle?	Chromosomes line up in centre of the cell and one set of chromosomes is pulled to each end of cell. Two nuclei form
What occurs during stage 3 of the cell cycle?	Cytoplasm and cell membrane divides. Two identical cells are formed.

Week 5

Question	Answer
What is diffusion?	The movement of gas or dissolved substances from a high to a low concentration (down a concentration gradient)
Give an example of diffusion in animals	Oxygen diffuses from the alveolus in the lungs into the red blood cells in the surrounding blood vessels
Give an example of diffusion in plants	Carbon dioxide diffuses from the gaps in the leaf into the palisade cells where photosynthesis occurs
How can you increase the rate of diffusion?	Increase the temperature, decrease the length of the diffusion pathway, increase the surface area, increase difference in concentration.

Week 6

Question	Answer
What is active transport?	The movement of substances from a low to a high concentration (against a concentration gradient)
What special conditions are needed for active transport?	Energy from respiration is needed to move the particles against the concentration gradient
What is osmosis?	The movement of water from a high water concentration to a low water concentration through a partially permeable membrane
Why is it called a "partially permeable" membrane?	Water molecules are smaller enough to go through the gaps in the membrane, but other substances (like glucose) are too big

Week 7

Question	Answer
In the osmosis required practical, why is the mass of each potato measured at the start and the end of the practical?	All the potato pieces will be slightly different masses. You can calculate the percentage change in mass to allow you to compare results
Some potato pieces will have increased in mass – why?	Water will have moved into the potato cells by osmosis. Therefore, there must have been a higher concentration of water in the surrounding liquid
How do you determine the concentration of sugar in the potato tissue?	On a graph plot change in mass against sugar concentration. The point where the line-of-best-fit crosses the x-axis shows the concentration in the potato
What is the equation to calculate % change?	$\frac{\text{mass at end} - \text{mass at start}}{\text{mass at start}} \times 100$

Topic: Atomic Structure Y10 | Science| Cycle 1

Tested Every Week In Class

Week 8

Question	Answer
What is an element?	An element is a substance made up of one type of atom only.
What is a compound?	A compound is 2 or more types of element chemically bonded together.
What is a mixture?	A mixture is a substance made up of more than one type of molecule. These molecules are not bonded together.
What is the independent variable?	The factor that scientists change. It goes on the right-hand side of the results table.
What is the independent variable?	The factor that scientists measure. It goes on the left-hand side of the results table
What are the control variables?	They need to be kept the same, so that scientists know any effects on the dependent variable are caused by the independent variable.

Week 9

Question	Answer
What is a solution made from?	A solute (usually solid) that has dissolved into a solvent (usually water).
How could you separate the solute and solvent in a solution?	Distillation allows you to collect both the solute and the solvent. Crystallisation allows you to collect the solute only.
What is a suspension made from?	A solute (usually solid) that has NOT dissolved into a solvent (usually water).
How could you separate the solute and solvent in a suspension e.g. sand and water?	Filtration allows you to collect the insoluble solute in the filter paper and the water (filtrate) in a conical flask
Why does the solute remain behind in the filter paper?	The holes in the filter paper are too small for the large solute particles to go through
What method is used to separate pigments or dyes with different solubilities?	Chromatography

Week 10

Question	Answer
Which table displays information on the different elements?	The Periodic Table
How are the elements arranged in the modern periodic table?	The are arranged in order of their atomic number (number of protons)
What do elements in the same group have in common?	The have similar chemical properties as they have the same number of electrons on their outer shell.
What are periods and group?	Periods are the horizontal rows of the periodic table. Groups are the vertical columns of the periodic table.
Why did Mendeleev leave gaps in his periodic table?	He left gaps for undiscovered elements.
Why did Mendeleev swap some elements around in order?	So that they better matched with the chemical properties of the elements in the rest of the group.

Week 11

Question	Answer
What is the name of group 1 metals and why are they placed into group 1?	They are called alkali metals and they all have only 1 electrons in their outer shell
Why do group 1 elements become more reactive down the group?	The atoms get larger, so the outermost electrons get further from the nucleus and the attraction become weaker due to more shielding. The electron is more easily lost.
What is the name of group 7 non-metals and why are they placed in group 7?	They are called halogens, and they all have 7 electrons in their outer shell
Why do group 7 elements become less reactive down the group?	The atoms get larger, so the outermost electrons get further from the nucleus and the attraction become weaker due to more shielding. The electron is less easily gained.

Week 12

Question	Answer
Which scientist developed the Plum Pudding model?	JJ Thomson
Describe the Plum Pudding model	Ball of positive charge with negative electrons scattered throughout
How is the nuclear model developed by Rutherford different from the Plum Pudding model?	Discovered that most of the mass is held in a tiny nucleus at the centre of the atom and that the nucleus is tiny
What were the main findings of the gold foil/alpha scattering experiment?	Most alpha particles went straight through Some were deflected and some were reflected
Who discovered the neutron?	James Chadwick
What did Neils Bohr discover?	Electrons are held in fixed shells are specific distances away from the nucleus

Week 13

Question	Answer
What are the charges and masses of the 3 subatomic particles?	Protons: + charge and mass of 1 Neutron: no charge and mass of 1 Electrons: – charge and very small mass
How is an atom made into a positively charged ion?	It loses 1, 2 or 3 negatively charged electrons
How is an atom made into a negatively charged ion?	It gains 1, 2 or 3 negatively charged electrons
Sodium is in group 1 – what ion does it make?	It has 1 electron in its outer shell, so it loses this electron to become an Na ⁺ ion
Chlorine is in group 7 – what ion does it make?	It has 7 electrons in its outer shell, so it gains an electron to become an Cl ⁻ ion
Calcium is in group 2 - what ion does it make?	It has 2 electrons in its outer shell, so it loses these 2 electrons to become an Ca ²⁺ ion

Topic Y10 Education and Work| Spanish| Half Term 1

Week 1

Question	Answer
Translate: In my school there is.....	En mi insti hay...
Translate: My school has	Mi insti tiene...
Translate: In my school there are many classrooms and a dining room.	En mi insti hay muchas aulas y un comedor.
Translate: In my school there are lots of labs but there is not a tennis court.	En mi insti hay muchos laboratorios pero no hay pista de tenis.
Translate: My school has a hall but it does not have a pool.	Mi insti tiene un salón de actos pero no tiene piscina.

Week 2

Question	Answer
Translate: My primary school was.....small.	Mi escuela primaria era....pequeño.
Translate: My primary school was not.....modern.	Mi escuela primaria no era...moderna.
Translate:In my primary school there was...a library.	En mi escuela primaria había...una biblioteca
Translate: My primary school had less teachers.	Mi escuela primaria tenía menos profes.
Translate: My primary school had more green spaces.	Mi escuela primaria tenía más espacios verdes.

Week 3

Question	Answer
Translate: In the future I am going to do A Levels.	En el futuro voy a hacer un bachillerato.
Translate: In the future I am going to study at university.	En el futuro voy a estudiar en la Universidad.
Translate: In the future I am going to find a part time job.	En el futuro voy a encontrar un trabajo a tiempo parcial.
Translate: After finishing the exams I am going to get some work experience.	Después de terminar los exámenes voy a ganar experiencia laboral.
Translate: After finishing the exams I am going to travel.	Después de terminar los exámenes voy a viajar.

Week 4

Question	Answer
Translate: I would like to be a sports person because I am sporty.	Me gustaría ser deportista porque soy Deportivo.
Translate: I would like to be a boss because I am hardworking.	Me gustaría ser jefe porque soy trabajador.
Translate: I would like to be an engineer because I am practical.	Me gustaría ser ingeniero dado que soy práctico.
Translate: I would like to be a doctor because I am responsible.	Me gustaría ser medico dado que soy responsable.
Translate: I would like to be a writer because I am creative.	Me gustaría ser escritor dado que soy creativo.

Week 5

Question	Answer
Translate: Last week I did my work experience	La <u>semana pasada</u> <u>hice</u> las <u>prácticas</u> .
Translate: Last week I did my work experience in a clothes shop.	La <u>semana pasada</u> <u>hice</u> las <u>prácticas</u> en una <u>tienda de ropa</u> .
Translate: Last week I did my work experience in a primary school.	La <u>semana pasada</u> <u>hice</u> las <u>prácticas</u> en una <u>escuela primaria</u> .
Translate: Recently I did my work experience in an office.	<u>Recientemente</u> <u>hice</u> las <u>prácticas</u> en una <u>oficina</u> .
Translate: Recently I did my work experience in a factory	<u>Recientemente</u> <u>hice</u> las <u>prácticas</u> en una <u>fábrica</u> .

Week 6

DNG Mastery
quiz



Topic Y10 Education and Work| Spanish| Half Term 1

Week 1

Question	Answer
Translate: The good thing is that...my school is mixed.	Lo bueno es que...mi insti es mixto.
Translate: The bad thing is that...the building is ugly	Lo malo es que...el edificio es feo.
Translate: the best thing is that...the building is modern.	Lo mejor es que...el edificio es moderno.
Translate: What I like the most is that...there are lots of facilities	Lo que más me gusta es que...hay muchas instalaciones
Translate: What I like the least is that...there is lots of homework	Lo que menos me gusta es que...hay muchos deberes.

Week 2

Question	Answer
Translate: I would say that my ideal school would be...big	Diría que mi insti ideal sería...grande.
Translate: I would say that my ideal school would be...mixed.	Diría que mi insti ideal sería...mixto.
Translate: If it were possible, my ideal school would have...a modern gym.	Si fuera posible mi insti ideal tendría...un gimnasio moderno
Translate: If it were possible, my ideal school would have...an enormous playground.	Si fuera posible mi insti ideal tendría...un patio enorme.
Translate: If it were possible, my ideal school would have...less homework..	Si fuera posible mi insti ideal tendría...menos deberes.

Week 3

Question	Answer
Translate: In my opinion the idea of studying more is quite boring.	En mi opinion la idea de estudiar más es bastante aburrida.
Translate: I think that the idea of working is very attractive.	Creo que la idea de trabajar es muy atractiva.
Translate: I think that the idea of going to university is very expensive.	Creo que la idea de ir a la Universidad es muy cara.
Translate:I have to admit that the idea of travelling seems to me a waste of money.	Tengo que admitir que la idea de viajar me parece una pérdida de dinero.
Translate: I have to admit that the idea of being independent seems to me very attractive.	Tengo que admitir que la idea de ser independiente me parece muy atractiva.

Week 4

Question	Answer
Translate: I would like to be a scientist because I am interested in working alone.	Me gustaría ser científico porque me interesa trabajar solo.
Translate: I would like to be a singer because I am interested in being famous.	Me gustaría ser cantante porque me interesa ser famoso.
Translate: I would like to be a business woman because I am passionate about earning money.	Quisiera ser empresaria porque me apasiona ganar dinero.
Translate: I would like to be an influencer because I am passionate about expressing myself.	Quisiera ser influencer porque me apasiona expresarme.
Translate: I have always dreamed of being a pilot	Siempre he soñado con ser piloto.

Week 5

Question	Answer
Translate: I had to wear a uniform	Tuve que llevar uniforme
Translate: I had to look after the people	Tuve que cuidar a la gente
Translate: I had to support the team	Tuve que apoyar el equipo
Translate:I think that it was boring	Creo que era pesado
Translate: I am lucky because in my city there is lots of unemployment	Tengo suerte porque en mi ciudad hay mucho paro.

Week 6

DNG Mastery
quiz

