

Name TG

Year 9

Knowledge Organisers

Term 4 - 2024

Computer Science

- 1. What does legislation mean in the context of computer science, and how does it help shape ethical practices?
- 2. How does cultural diversity influence the development of guidelines for ethical behaviour in the digital world?
- 3. Why is copyright important in protecting digital works, and how does it allow owners to control their use?
- 4. What is the role of robotics, and how can its design and use raise ethical questions in society?
- 5. Why might self-driving cars pose ethical challenges, and what concerns should be addressed in their development?
- 6. What is electronic waste, and how does it impact the environment? Name some common sources of e-waste.
- 7. Explain the concept of planned obsolescence and its potential environmental consequences.
- 8. How does data protection legislation ensure that stored data in computers is used responsibly and legally?
- 9. What acts are considered computer misuse, and why are legal measures necessary to prevent them?
- 10. What is the digital divide, and why does it matter in terms of who can use technology comfortably?
- 11. How does censorship in the digital age raise ethical concerns, and what are its implications for freedom of expression?
- 12. What legal issues surround the protection of intellectual property in the digital era?
- 13. How might robotics in healthcare raise ethical considerations, and what benefits can they bring?
- 14. How do self-driving cars contribute to addressing environmental issues, and what challenges may arise?
- 15. Why does the digital divide create cultural disparities in access to technology, education, and job opportunities?
- 16. What steps can be taken to reduce electronic waste and encourage responsible disposal practices?
- 17. Why is it important to address ethical concerns in the use of artificial intelligence, especially in areas like criminal justice?
- 18. How can individuals and organizations help reduce the environmental impact of planned obsolescence?

Computer Science cont..

- 19. Discuss the ethical considerations of collecting and using personal data in digital marketing and advertising.
- 20. How does the digital divide affect cultural participation in the global digital community?

Design Technology

- 1. What safety precaution should you consider when using a drilling machine?
- 2. What does the word Annotation mean?
- 3. Why do we Annotate design drawing work?
- 4. Why do designers use ACCESSFM?
- 5. What does the F in ACCESSFM stand for?
- 6. What does Aesthetics mean?
- 7. Describe what Anthropometrics means and give an example.
- 8. Describe an Ergonomic function on a product.
- 9. What does sustainability mean when thinking of a product?
- 10. Name two methods of enhancing a drawing?
- 11. What does CAM stand for?
- 12. Give an example of a CAD programme.
- 13. Name a drawing technique that shows 3 different views of the product?
- 14. Why do we Analyse a product?
- 15. What standard size paper is larger than A4?
- 16. Name a composite material?
- 17. How can you join different materials?
- 18. Give an example of a metal jointing process.
- 19. Explain the term Specification.
- 20. Why do we model in card before making the final product?

Drama

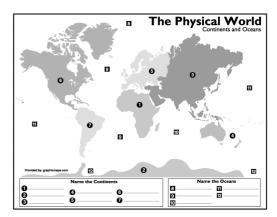
- 1. What is emphasis?
- 2. What is tone?
- 3. What is delivery?
- 4. What is accent?
- 5. What is intonation?
- 6. What is a duet?
- 7. What is a solo?
- 8. What is canon?
- 9. What is unison?
- 10. What are levels?
- 1. What is this? The use of different heights to communicate status
- 2. What is this? Highlighting a key word or phrase with volume or pace
- 3. What is this? To do something all at the same time
- 4. What is this? The emotion of your voice
- 5. What is this? To do something one after another, like an echo of movement
- 6. What is this? How you use your vocal skills
- 7. What is this? When one person performs
- 8. What is this? How your voice changes depending on where you're from
- 9. What is this? When two people perform
- 10. What is this? The rise and fall of your voice
- 1. What is body language?
- 2. What are proxemics?
- 3. What is eye-contact?
- 4. What is the word for the energy a character moves with?
- 5. What is the word for the attitude of a character?
- 6. What is canon?
- 7. What could levels communicate?
- 8. What is intonation?
- 9. What is the difference between canon and unison?
- 10. What is the difference between solo and duet?

English Food A View from the Bridge Quiz Questions 1. What do you do if you burn yourself? 1. Where is the play set? 2. What do you use to remove a hot dish from the 2. When is the play set? oven? 3. What is Eddie's job? 3. Where should the pan handles be pointed to when 4. Who is Eddie married to? using the hob? 4. True or false – you must provide your own apron and Catherine is 's niece. 6. What is Alfieri's job? containers? 5. Bacteria reproduces via which method? 7. Which character acts as the Greek chorus? 6. Name 3 food poisoning bacteria. 8. Which characters is Marco related to? 7. What are the 3 macronutrients? 9. Which character likes to sing, cook and sew. 8. Vitamins can be classed in ways, what are they? 10. Where does Catherine work? 9. What is cross contamination? 11. What is a prologue? 10. Explain what the Eatwell Guide is. 12. What is foreshadowing? 11. Name 5 sections of the Eatwell Guide. 13. What does inevitability mean? 12. What does the term 'Cuisine' mean? 14. What does fate mean? 13. Give 4 functions of the macronutrient fat. 15. What does juxtaposition mean? 14. Which nations make up the United Kingdom? 16. What does symbolism mean? 15. What is meant by the term 'Seasonal Food?' 17. What does irony mean? 16. Explain the term 'Organic'. 18. What does toxic masculinity mean? 17. Explain the term 'Halal'. 18. Give 4 reasons why we eat food. 19. What is a tragic hero? 19. Draw and label the parts of a wheat grain. 20. What does hubris mean? 20. List 4 ways you could reduce food waste. 21. What is hamartia?

Geography

Activity one

- 1. Define biome
- 2. Describe the distribution of the deserts.
- 3. Describe the desert climate
- 4. What does arid mean?
- 5. Give 3 examples of water borne diseases
- 6. How has the cape fox adapted to the desert environment?
- 7. How has the Saguaro Cactus adapted to the desert environment?
- 8. How has the camel adapted to the desert environment?
- 9. Define water stress
- 10. Define desertification
- 11. How can desertification by managed and reduced?
- 12. Name the largest hot desert in the world
- 13. What are the opportunities for people of living in hot deserts?
- 14. What are the challenges for people of living in hot deserts?
- 15. Name the 7 continents and the 5 oceans:



Activity two

Read the section on desert plant and animal adaptations in the desert. You might also like to watch some the David Attenborough documentaries on BBC iPlayer. Answer this short 4 mark question. "Explain how plants and animals have adapted to the harsh desert environment" You much make sure that you link the adaptation to the characteristics of the climate.

e.g. camels have adapted to the dry conditions by

Geography cont.

Activity three

Read the section on how water supplies can be improved in the hot deserts and use the link below to help you: https://www.bbc.co.uk/bitesize/guides/zgx382p/revision/3

Complete this table

strategy	advantages	disadvantages
Desalination		
D: II		
Dig wells		
Fog and		
water		
capture		

History

Task 1

- 1. Why did banks go bankrupt and collapse during the Wall Street Crash of 1929?
- 2. Which new products created a "boom" in 1920s USA Poland and Russia that Hitler desired? (but then became OVER-produced)?
- 3. Name 3 industries in the USA which were struggling in the 1920s anyway?
- where people's lives are controlled to make the country stronger?
- 5. If you add together the total number of ships, planes, submarines, tanks and soldiers that Germany was allowed after WW1 (from Treaty of Versailles) what would it total?
- 6. Who organised a huge General Strike in the UK (supporting miners) in 1926?
- 7. What name is given for money paid from one country to another as compensation?
- 8. What organisation was set up after WW1 to help stop future wars and keep the peace?
- 9. Which leader marched on Rome in 1922 and became the Fascist leader of Italy?
- 10. Which word is used for prejudice and discrimination against the Jewish religion?

Task 2

Write a diary entry explaining why an imaginary friend joined the Nazi Party. Decide what kind of person they are - male/female? working class/middle class? Employed/unemployed? This will determine why they joined the Nazi Party. You should include the following information

- a) What they think about Hitler's promises on the future of Germany - Land? Ending Treaty of Versailles? Employment? Economy? Destroying communism?
- b) What Hitler and the Party are going to do to make their life better
- c) What excites them about the Party? Uniform? Rallies?
- d) What issues do you have with your friend's decision?

Task 3

- 11. Which 3 countries were included in Hitler's Greater Germany (to bring German speakers back together)?
- 12. What name is given for a system where leaders of a country are elected by the people?
- 13. Which word means to be able to vote?
- 14. If you "go on strike", what do you do?
- 15. What word describes an unelected individual who has almost total power?
- 16. Which word describes an unstoppable rise in prices which leads to currency quickly becoming worthless?

History cont.

- 17. Which Nazi organisations trained young German boys to be soldiers and young German girls to be mothers?
- 18. Which German word was used for the "Living Space" in
- 19. Which word describes a system where workers run the country, and supposedly share the wealth created equally for the good of the nation?
- 4. What name is given to a strict system of government 20. Which groups below were discriminated against by the Nazi German government 1933-1945?

Music	PE
1. What is a riff?	
2. What is a fill?	
3. What is sampling?	
4. What is a hook	
5. What is the difference between a verse and	
chorus?	
6. What is a bridge?	
7. What is modulation?	
8. What is a bass line?	
9. What is the word for a high female voice?	
10. What is the word for a low female voice?	
11. What is the word for a high male voice?	
12. What is the word for a low male voice?	
13. What is syllabic word setting?	
14. What is melismatic word setting?	
15. What is the musical word for the main tune?	
16. What is the musical word for how loud or quiet	
the music is?	
17. What is the musical word for how fast of slow the	
music is?	
18. What is the musical word for whether the music is	
major or minor?	
19. What is the musical word for what is performing	
the piece?	
20. What is the musical word for how many layers	
there are in a piece?	
Also recognising images of the following	
instruments:	
Acoustic Guitar	
Electric Guitar	
Bass Guitar	
Keyboard	
Synthesiser	
Drum Kit Vocals	
VOCAIS	

Science

- 1. What are the 8 stores of energy?
- 2. What is a closed system?
- 3. What is the law of conservation of energy?
- 4. What are the pathways that energy can be transferred by?
- 5. What is the equation linking kinetic energy, mass and velocity?
- 6. When will an object have 0 kinetic energy store?
- 7. What is the equation linking gravitational potential energy, mass, gravity and height?
- 8. What is the value for gravity on Earth?
- 9. What is elastic potential energy?
- 10. What is equation linking elastic potential energy, the spring constant and extension?
- 11. What does this symbol mean Δ ?
- 12. What is specific heat capacity?
- 13. What is the equation linking changing energy, mass, specific heat capacity and change in temperature?
- 14. Specific heat capacity of water is 4200 J/kg/°C. How much energy is needed to raise the temperature of 3kg of water by 4°C?
- 15. What is the equation linking power, energy and time?
- 16. Why is a system not 100% efficient?
- 17. What is dissipation?
- 18. What is the equation for working out efficiency?
- 19. What are the units for efficiency?
- 20. When a kettle filled with cold water is boiled 720000J of energy are transferred. If the kettle has an efficiency of 96% how much energy is supplied to the kettle to boil the water?

Spanish

A] Learn the ways to give an opinion and write these out in Spanish

- 1. I like
- 2. I prefer
- 3. I can't stand
- 4. Hove
- 5. I liked
- 6. I didn't like
- 7. I really want
- B] Answer these questions about yourself in Spanish in full sentences:
 - 1. ¿Qué haces en tu tiempo libre? What do you do in your free-time?
 - 2. ¿Qué tipo de película te gusta? What type of film do you like?
 - 3. ¿Qué te gusto de la película? Whar did you like about the film?
 - 4. ¿Qué película tienes ganas de ver? What fil would you like to see?

Art Term 4. Protest Project

Banksy https://en.wikipedia.org/wiki/Banksy

Key content







English street artist. Active since the 1990's. His satirical street art

His work grew out of the **Bristol** underground art scene.

Graffiti. Message **Politics** Public Art "graphic"

Shepard Fairey https://en.wikipedia.org/wiki/Shepard Fairey







American artist born in 1970. Artist activist and founder of **OBEY clothing that emerged**

from the Skateboarding scene. His work has a very distinctive 'poster" style.

Poster Street art Political Bold Colour

Hust Wilson https://thegreats.co/artists/hust-wilson







African artist and designer. Born in 1993. Self taught due to growing up very poor. His work uses text to motivate

and inspire using his own style of fonts that he

Graphic Bold Block Motivational

Word	Definition
1. Protest	A statement or action that shows disapproval or objection to something.
2. Opinion	A view, judgement, or view formed about something.
3. Politics	The activities/ideas of a Government or those in charge.
4. Society	Community of people living/interacting together
5. Graffiti	Writing or drawings scratched, scribbled, sprayed or painted somewhere.
6. Public Art	Something for all people to share/have access to/enjoy
7. Font	Type/letters with a particular style or rules
8. Placard	a printed or handwritten notice or sign for public display, either fixed to a wall or carried during a demonstration

How to create a good research mood board;

1. Choose the theme/idea.

What do you want to protest about? Why?

2. Collect inspiring images

Make a new folder in your y9 Art area on your own drive. Collect lots, delete later

3. Go from messy to organised

Which images give you the best ideas. Can you copy from slogans and fonts? Open a word document and arrange the images

4. Explain your thinking

Why have you chosen this idea? How will you USE the images/fonts/slogans?

5. Add colour and use fonts.

PRESENT the page, make it look good, make it look interesting.

6. Ask for feedback.

Asking for advice doesn't mean you are not doing a good job. It means you want to do the BEST job.

Computer Science

Key content

Ethical Issues
Robotics
Self-driving Cars





Cultural Issues

Digital divide, which is the division that exists between those people who can use technology and are comfortable doing so, and those who are not.

Censorship



Legal Issues

Protection of intellectual property



Environmental Issues

Reduce, Reuse, Recycle, planned obsolescence





Key Vocab

Digital Impact

Word	Definition
Legislation	The process of making or enacting laws
Cultural Diversity	The existence of a variety of cultural or ethnic groups within a society
Ethical	To be morally good or correct
Copyright	Protects certain 'works' and allows the owner to control the ways in which they may legally be used
Robotics	The design, construction and use of mechanical robots
Electronic Waste	E-waste includes anything with plugs, cords and electronic components. Common sources of ewaste include televisions, computers, mobile phones and any type of home appliance, from air conditioners to children's toys.
Planned Obsolescence	The practice of designing products to break quickly or become obsolete in the short to mid-term. The general idea behind this is to encourage sales of new products and upgrades, a practice that has been banned in some countries.
Data Protection	Legal control over access to and use of data stored in computers
Computer Misuse	Includes such acts as hacking, spreading malware (such as viruses), and other unauthorized conduct, such as the alteration of software or data, changing passwords, and interfering with the normal operation of the computer system.

More info can be found here:

 ${\tt BBC\ BiteSize\ Computational\ Thinking:}$

https://www.bbc.co.uk/bitesize/guides/z8m36yc/revision/8

DESIGN TECHNOLOGY YEAR 9 Product Life Cycle & Sustainability

Product Life Cycle

When creating new innovations and solutions, Engineers need to understand the impact their design is going to have on the planet.

End of product life

What happens to the product at the end of its life? Can any or all of it be recycled/reused? Is it easy to dismantle and recycle? Will it go into landfill (rubbish dump)? How can this now useless product have a minimal impact on the environment?

Using the product

How will the product be used? Have you created it to only last a limited time? Is it an optimal design that will last a long time? Does it need servicing or maintenance? Are there extra environmental costs if the customer uses it (e.g. power usage)



Refining raw materials

What and where are the materials you need

for your solution? Do you have to transport

them from the other side of the world? Can

you source them locally? How are you going

to extract them? Can you find recycled

Extracting Raw Materials

Do the materials you have specified need refining (e.g. crude oil into plastic)? How many refining processes are your materials going to need? Can you substitute some raw materials for recycled/re-used materials that have already been refined.

Assembling parts

How is your product going to be assembled and packaged? Will your packaging use even more materials? Can it be assembled in the same place as it was manufactured? Once assembled, does it need to be transported to the customers?

Manufacturing parts

materials to use

Where is your product going to be manufactured? Does it need to be transported when made? Do you need to set up a new manufacturing plant and train new staff? Can you manufacture locally?

Key Word Definition Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. Recycling The process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products, or to land fill.



Recycling plastics

The 3 pillars of sustainability

Sustainability is most often defined as meeting the needs of the present without compromising the ability of future generations to meet theirs. It has three main pillars: economic. environmental, and social. These three pillars are informally referred to as people, planet and profits.



















This indicates the part of the product that can be recycled

Green Dot

This indicates that the recycling of this product has been considered and financed.

Recycling logo (modius Loop)

This shows if a product or part of a product can be recycled

Tidy Man

Is not a recycling symbol but is asking the consumer to be considerate when disposing of the product.

Extension task

What other symbols have you seen on packaging and products that indicate that the product is recyclable or sustainable?

Drama	Key V	ocal Skills		Key Physical Skills	D.N.A by Dennis Kelly
Word Definition		Word	Definition		
Emphasi	S	Highlightin pace	ng a key word or phrase with volume or	Body-language	The use of body to communicate with the audience
Tone The emotion of the voice		Proxemics	The distance between actors		
Delivery How you use pace, pitch, pause, tone and volume to deliver a line of dialogue		Eye-contact	Where an character looks and what this communicates		
Accent		How some	one sounds depending on where they're	Gait	Energy with which the character moves

Demeanour

Key Techniques

Intonation

Word	Definition
Solo	To do something individually
Duet	To do something with a partner
Canon	To do something one after another, like an echo of movement
Unison	To do something all at the same time
Level	The use of different heights and what this communicate e.g. standing or sitting or lying down

The rise and fall of a voice

How to give constructive feedback

The attitude of a character

- · WHAT skill have they used?
- \cdot HOW have they used that skill?
- · WHY did they use that skill?
- · WHAT effect did that skill have?





ENGLISH - A VIEW FROM THE BRIDGE

Key Characters (QLA R1):

Eddie Carbone = longshoreman (works to unload boats). Lives in Red Hook with his wife and niece. Has a close relationship with his niece and doesn't want her to be independent or grow up.

<u>Beatrice Carbone</u> = Eddie's wife. Kind-hearted and loyal. Helps her cousins from Italy find work and lets them stay with her and Eddie.

<u>Catherine</u> = Beatrice's niece. Works in an office and falls in love with Rodolpho.

<u>Alfieri</u> = Knowledgeable lawyer. Gives Eddie and Marco advice and acts as a narrator for the audience. Acts as the Greek chorus

<u>Marco</u> = Beatrice's cousin. Works as a longshoreman after arriving in New York illegally. Sends money home to his family in Italy.

<u>Rodolpho</u> = Beatrice's cousin and Marco's brother. Works as a longshoreman after arriving in New York illegally. Likes singing, cooking and sewing and falls in love with Catherine.

Key Quotations (QLA R2):

- 1) Eddie: 'Just remember, kid, you can quicker get back a million dollars that was stole than a word that you gave away'
- <u>2)</u> <u>Catherine</u>: Almost in tears because he disapproves 'What do you want me to do?'
- 3) Alfieri: 'I could have finished the whole story that afternoon.'
- 4) Eddie: 'I want my respect.'
- <u>5)</u> <u>Marco:</u> 'That one! He killed my children! That one stole the food from my children!

Key Vocabulary, Spellings and Definitions (QLA R1 and R5):

- 1. <u>Prologue =</u> a character gives information at the beginning of the play; an introduction
- 2. Foreshadowing = a warning or indication of a future event
- 3. <u>Inevitability = something that is definitely going to happen in the future</u>
- 4. Fate = a course of events, outside of a person's control
- 5. <u>Juxtaposition =</u> two things seen or placed together that contrast
- 6. <u>Symbolism =</u> an object/action that represents a deeper idea
- 7. <u>Irony =</u> a situation in which something which was intended to have a particular result has the opposite or a very different result
- 8. Protagonist = main character
- 9. Toxic Masculinity = cultural pressure for men to behave in a certain "manly" way
- 10. <u>Tragic Hero =</u> a character from a high class background who, through an error of judgment, meets their downfall
- 11. <u>Hubris =</u> excessive pride
- 12. <u>Hamartia =</u> the tragic hero's problem or error of judgment (fatal flaw)
- 13. Catharsis = the audience's fear and pity for the characters
- 14. <u>Greek chorus =</u> a group of actors who commented and sang about the action of a play
- 15. <u>Anagnorisis</u> = when the protagonist has a moment of realisation about themselves or the truth

Key Context (QLA R5):

- > They play is set in 1950s in Red Hook, New York. It was a poor area and experienced lots of Italian immigration.
- > Immigrants came to work in America seeking a better life for their families. They usually had respect for family authority and honour, but didn't trust the authorities (police, lawyers etc).
- Gender roles were strictly defined in the 1950s. Women were expected to stay at home and look after the cleaning and cooking, and men were expected to work. The male head of the household expected to be obeyed.
- Arthur Miller wrote the play as a modern Greek tragedy, (where a central character is led by fate to a destiny they can't control).

Subject Food

Cuisine of the World

- 1. Food from Italy Pasta, Pizza, mozzarella, salami
- 2. Food from India Curry, Bhajis, Naan, basmati rice
- 3. Food from Mexico Burrito, Fajita, Taco, corn
- 4. Food from Morocco Tagine, Boruk, Cous cous, Harissa
- 5. Food from Japan Sushi, Ramen, Goyza, sashimi



UK Foods

- 1. Bakewell Tart
- 2. Scones
- 3. Victoria Sponge
- 4. Lancashire Hotpot
- 5. Yorkshire Pudding
- 6. Cowl
- 7. Champ
- 8. Haggis
- 9. Black Pudding
- 10. Clanger

Caught	Fish, Shellfish, game
Reared	Meat, some fish
Grown	Fruit and vegetables

Topic: Food Provenance

Key vocab

Word	Definition
Cuisine	A style of cooking characteristic of a particular country or region, where the food has developed historically using distinctive ingredients, specific preparation and cooking methods or equipment.
Multi cultural	People from a variety of cultures or backgrounds
Food waste	Food that is consumed or used that goes to landfill.
Food choice	Foods that are chosen due to various reasons - this can dietary, religious or intolerances.
Allergies	When someone can have or has had an allergic reaction (adverse reaction) to a food source.
Vegan	A person who does not eat any food derived from animals and who typically does not use other animal products.
Seasonal	The times of the year when the harvest or the flavour of a given type of food is at its peak. This is usually the time when the item is harvested.

More info can be found here:

https://www.foodafactoflife.org.uk/11-14-years/where-food-comes-from-11-14-years/where-food-comes-from-videos-11-14-years/

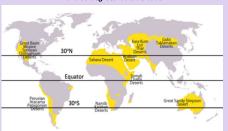
Tasks

- 1. The Red Tractor food assurance scheme requires strict standards of animal welfare. List the main requirements for cows, sheep and pigs.
- 2. Create a presentation about farming in your local area. Include how it has changed over time.

KS3 Geography: Y9 Deserts

Where are the Deserts?

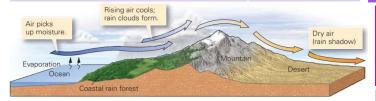
Many deserts are found in bands along 30 degrees latitude north and 30 degrees latitude south



Some deserts located by mountains and are caused by the 'rain shadow' effect. As air moves up over a mountain range, it gets cold and loses the ability to hold moisture so it rains or snows. When the air moves down the other side of the mountain, it gets warmer. Warm air can hold lots of moisture, so it doesn't rain as much, and a desert is formed.

- The desert biome is an ecosystem that forms due to the low level of rainfall it receives each year. Deserts cover about 20% of the Earth.
- There are four major types of desert in this biome hot and dry, semiarid, coastal, and cold. They are all able to inhabit plant and animal life that are able to survive there.

Subject Specific Key Terms			
Adaptation	The process of change by which an organism or species becomes better suited to its environment.		
Arid	Having little or no rain; too dry or barren to support vegetation. Can refer either to the land or the climate.		
Biome	a large naturally occurring community of flora and fauna occupying a major habitat, e.g. desert, forest or tundra.		
Desertification	The process by which land becomes drier and degraded, as a result of climate change or human activities, Also known as soil degradation.		
Oasis	A fertile area in a desert, due to the presence of water		
Evaporation	Water lost from the ground's surface. Rates of evaporation are high in hot deserts.		
Hot desert	Parts of the world that have high average temperatures and very low precipitation.		
Sahara Desert	The largest hot desert in the world. The desert comprises much of North Africa.		



Improving water supplies in desert regions

- Life straws: can filter water as a person drinks it. This saves people from water borne disease
- Dig wells: accessing ground water can transform lives
- Fog and rainwater capture: using dark surfaces to capture fog. This can be used to irrigate gardens and fields
- desalination: the process of making sea water fit for human consumption, it involves removing the salt

Water stress: the water resources in a region or country are insufficient for its needs.

- Water borne disease can be a serious issue resulting in loss of life e.g Cholera, diarrhoea, guinea worm and bilharzia
- People may have to travel great distances to collect water for their family. This role is often performed by women and girls

Plant an animal adaptions

- Cape foxes have many desert adaptations, including furcovered feet, heat-radiating ears and pale fur that offers excellent camouflage in the sand.
- Beetles in the Namib desert have dark, shiny shells. At day break they climb to the top of the sand dunes, turn their back to the sea and collect fog as its comes off the Atlantic Ocean. The fog condenses on the dark shells and trickles into their mouth
- The Saguaro Cactus: has long shallow roots that collect water when it does rain. It then stores water in its fleshy stem. It is covered in thorns to prevent animals from eating it.







TIMELINE: What was impact of WW1?

<u>February 1917</u> – <u>Russian Tsar Nicholas abdicates.</u> 300 years of royal rule ends. Eventually replaced in October by <u>Bolshevik Communists</u>

<u>28th June 1919</u>– Treaty of Versailles signed. Germans humiliated.

October 1922 – Benito Mussolini marches on Rome with his "blackshirts" and soon becomes Fascist leader of Italy.

 $4^{\text{th}} - 12^{\text{th}}$ May 1926 – Trade Union Congress organised a huge but unsuccessful nationwide strike (printers, dockworkers, gasworkers, transport workers etc) to support miners who were being made to work longer hours for less pay.

<u>October 1929</u> – Wall Street Crash in the USA – shares plummet and world plunged into global economic decline – '<u>The Great Depression</u>'.

Causes of American Wall Street Crash and Great Depression

- 1. Irresponsible American rural / local banks lent money to people who couldn't pay it back (often speculated on shares and lost in 1929), banks went bankrupt = people lost savings / homes.
- 2. New products had created a 'boom' (cards, radios, Telephones, fridges, nylon stockings) BUT by 1929 most people that could afford them already had them.
- 3. Some of the old industries (gas, leather, steel, iron and textiles) had been declining for years in the USA. Wages had gone up in line with profits.
- 4. Many share prices were way higher than they should have been so they were always heading for a collapse

Challenge yourself to learn more about out WW2 here: https://www.bbc.co.uk/bitesize/topics/zk94jxs

IMPACT OF THE TREATY OF VERSAILLES

GERMAN LAND

- 1. Overseas colonies to GB & FR
- 2. Lost land to Poland, Czech, Den., FR and Belgium
- 3. No troops in Rhineland (French border)

GERMAN MILITARY

4. Army only 100,000. 6 ships. 0 planes. 0 subs. 0 tanks.

OTHER

- 5. War Guilt Clause = Germany blamed for WW1
- 6. £6,600 million to be paid by Germany in Reparations.
- 7. League of Nations created to stop future wars

1923 – 1933 The Rise of Hitler

- a) Promised to ignore restrictions and repayments demanded in the Treaty of Versailles
- b) Blamed Jews for defeat in WW1
- c) Wanted "Greater Germany" of German speakers (including Austria, Czechoslovakia and Poland)
- d) Lebensraum "Living Space" in Russia for Germans
- e) Imprison Communists and provide work for all
- f) Military uniforms, marches, banners and salute

Hitler elected as Chancellor – January 1933

- 1. Hitler becomes "Fuhrer" leader
- 1935 National Labour Service = jobs and rebuild
- 2. Kinder, Kirche, Kuche (Children, Church and Cooking) is aim for women
- 3. Discrimination against disabled, Jewish and Scinti Roma (Gypsies) groups arrest and forced labour
- 4. Propaganda and total control of media, literature theatre and culture to spread Nazi ideas.
- 5. Hitler Youth groups spread Nazi ideas and trained young Germans to be soldiers / mothers

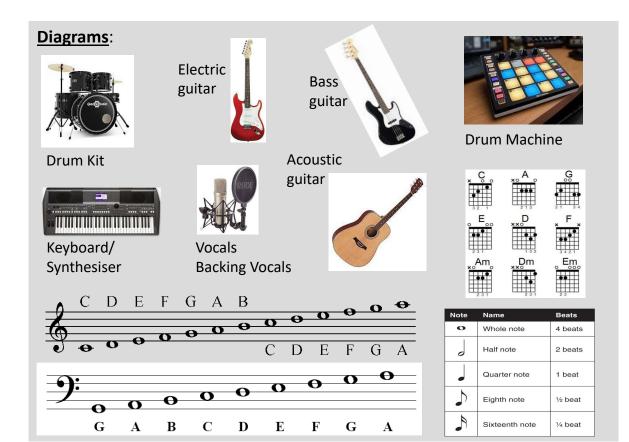
History - KPI 2: Impact of World War I

Key term	Definition
Reparations	Money paid from one country to another as compensation
League of Nations	Peacekeeping organisation from Treaty of Versailles (now United Nations - UN)
To strike	VERB = refuse to work in order to protest against something
Suffrage	To be able to vote
Democracy	System of electing your leaders
A dictator	An unelected individual who rules using force and has great personal power
Communism	System where workers run country – nation's wealth is shared equally by all
Economic depression	Period of decline in business, profits and reduction in job opportunities
Fascism	System of government with strict government control over lives to make nation stronger.
Share	A share of a business bought with cash. The re-sale value can rise or fall.
Speculators	Investors who borrow money to buy shares
Anti-Semitism	Prejudice against the Jewish religion
Hyperinflation	Unstoppable and quick rise in prices leading to currency becoming worthless
Gestapo	Nazi secret (political) police

Music

Key content

Popular Music is music with wide appeal that is typically distributed to large audiences through the music industry. These forms and styles can be enjoyed and performed by people with little or no musical training. This term we will be looking at the development of Hip Hop, Rap and Pop music from the 1990s to the present day.



Key vocab

Word	Definition
Riff	A short repeated phrase typically played by a guitar or keyboard
Fill	A short rhythmic drum pattern played in between sections
Hook	A short catchy repeating melody
Verse	A section that repeats but the lyrics change
Chorus	The main part of the song which repeats
Modulation	Key change – where the music goes up in pitch
Syllabic	Each syllable has its own note
Melisma	Dragging one syllable over several notes
Drum Machine	An electronic instrument that can imitate drum kits and produce sound effects
Rap	A genre of music which uses spoken rhythm and rhyme

More info can be found here: Listening (clean versions)



Oasis	Eminem	Ed Sheeran
Blur	Kanye West	The Weeknd
The Spice Girls	50 Cent	Bruno Mars
Take That	Nicki Minaj	Lady Gaga
Mariah Carey	Taylor Swift	Adele

Subject

Physical Education

Topic Healthy ME – Year 9

Key content

Cardiovascular System

KEY TERMS Stroke Volume Cardiac Output



Respiratory System

KEY TERMS Vital Capacity Tidal Volume Oxygen Debt



Short Term or Immediate

- · Increased heart rate
- Increased of blood pressure
- Increased systolic blood pressure

Long Term effects (Adaptations)

- Cardiac hypertrophy
- Increased stroke volume
- Increased max cardiac output
- Lower resting heart rate.
- Increase in capilliarisation.
- Increase in red blood cells.

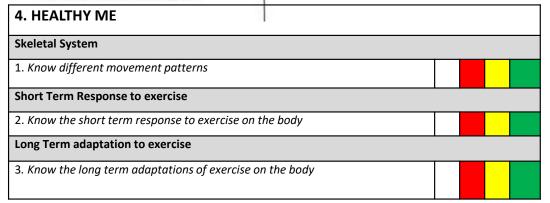
Short Term or Immediate

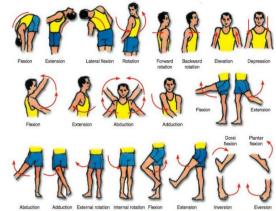
- Increased breathing rate.
- Increased depth of breathing.

Long Term effects (Adaptations)

- · Increased number of alveoli.
- · Increased strength of intercostal muscles.
- · Increased vital capacity
- · Increased strength of diaphragm

Definition		
Decreasing the angle at a joint		
Increasing the angle at a joint		
Moving limb away from midline of body		
Moving limb towards midline of body		
Circular motion of limb		
Limb rotating along their axis		
Rotation of the forearm to face upwards		
Rotation of the forearm to face downwards		
Backward bending of your foot		
Pointing your toes		





Topic Name: life after death

Key word	Definition			
Resurrection	The Christian belief that Jesus came back to life after he was crucified.			
Reincarnation	Coming back in the next life. What someone comes back as depends on the karma from the previous life.			
Rebirth	Similar to reincarnation, although a person will not remember their past life. Someone may remember their past life when reincarnated.			
Funeral	A funeral is a ceremony connected with the final disposition of a corpse, such as a burial or cremation, with the attendant observances.			
Life after death	Living again after this life.			
Paranormal	Events that are beyond human understanding and science. Ghosts are an example of the paranormal.			
Moksha	The concept of heaven in Hinduism. The cycle of reincarnation (samsara) is ended and the atman (soul) goes to Moksha.			
Karma	Actions. If a Hindu has good karma they will be rewarded in the next life. If they have bad karma they will be punished.			

There is no scientific evidence for life after death, but the belief in an afterlife is strong among religious and also some non-religious people.

For most religious people, belief in life after death is based on teachings in their scriptures or traditions. The sacred texts in Christianity, Judaism and Islam talk of an afterlife, so for followers of these faiths life after death has been promised by God. For Buddhists, belief in reincarnation is based on the tradition that the Buddha remembered his past lives when he reached enlightenment.

Not all people who believe in life after death would call themselves 'religious'. For example, some people believe in the concept of reincarnation but are not necessarily Buddhist, Hindu or Sikh. Others feel natural justice requires good to be rewarded and evil punished but do not hold one of the traditional faiths that promise an afterlife.

For some people, near-death experiences (NDEs) a sense of déjà vu or witnessing ghosts, perhaps through a medium, convince them there is life beyond death.

Christian beliefs about life after death are based on the resurrection of Jesus Christ. Christians believe that Jesus' death and resurrection are part of God's divine plan for humankind. Through his death on the cross, Jesus pays the penalty for mankind's sin and mankind's relationship with God is restored. This is called atonement. Christians believe that three days after the crucifixion, God raised Jesus from the dead and he once again appeared to his disciples. This is taken to mean that Jesus' sacrifice was a victory over sin and death. Although physical death still happens, those who believe in Christ and live good lives will be given eternal life in Heaven.

Useful websites for extended reading: https://www.bbc.co.uk/bitesize/guides/zn6ncdm/revision/1

Combined - Physics P1 - Energy

Energy Stores and Systems

Energy Stores					
kinetic	Moving objects have kinetic energy.				
thermal	All objects have thermal energy.				
chemical	Anything that can release energy during a chemical reaction.				
elastic potential	Things that are stretched.				
gravitational potential	Anything that is raised.				
electrostatic	Charges that attract or repel.				
magnetic	Magnets that attract or repel.				
nuclear	The nucleus of an atom releases energy.				

Energy can be transferred in the following ways:

Mechanically – when work is done: **Electrically** – when moving charge does work; Heating – when energy is transferred from a hotter object to a colder object. **Radiation** – when energy is transfer via a wave.

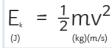
Conservation of Energy

Energy can never be created or destroyed, just transferred from one form to another. Some energy is transferred usefully and some energy gets transferred into the environment. This is mostly wasted energy.

Convection – when a liquid or a gas is heated, the particles move faster. This means the liquid or gas becomes less dense. The denser region will rise above the cooler region. This is a convection current.

Equations

Kinetic energy



$$E_{e} = \frac{1}{2} ke^{2}$$

Potential energy

$$E_{p} = \underset{(kg)(N/kg)(m)}{\mathsf{mgh}}$$

Elastic Potential



Combined science HT physics energy

Power

power = energy transferred ÷ time

$$P(W) = E(J) \div t(s)$$

power = work done ÷ time

$$P(W) = W(J) \div t(s)$$

Specific Heat Capacity

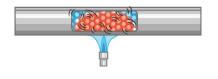
$$\triangle E = \underset{(kg)}{m} \times \underset{(J/kg^*c)}{c} \times \triangle \Theta$$

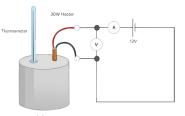
Efficiency

efficiency = useful output energy transfer total input energy transfer

Conduction - when a solid is heated, the particles vibrate and collide more, and the energy is transferred.







Word	Definition
Insulation	Reduces the amount of heat lost.
Lubrication	Can be used to reduce the friction between the surfaces.
Friction	The resistance that one surface or object encounters when moving over another.
Efficiency	A measure of how much work or energy is conserved in a process
Specific Heat Capacity	The energy required to raise the temperature of a 1kg mass of a given substance by 1 degree C

Investigating Specific Heat Capacity Method:

- 1. Using the balance, measure and record the mass of the copper block in kg.
- 2. Wrap the insulation around the block.
- Put the heater into the large hole in the block and the block onto the heatproof mat.
- 4. Connect the power pack and ammeter in series and the voltmeter across the power pack.
- 5. Using the pipette, put a drop of water into the small hole.
- 6. Put the thermometer into the small hole and measure the temperature.
- 7. Switch the power pack to 12V and turn it
- Read and record the voltmeter and ammeter readings - during the experiment, they shouldn't change.
- 9. Turn on the stop clock and record the temperature every minute for 10 minutes.
- 10. Record the results in the table.
- 11. Calculate work done and plot a line graph of work done against temperature.

El cine



Las películas	Films		
Cuando tengo tiempo me gusta ir al cine	When I have time, I like to go to the		
con mis amigos.	cinema with my friends.		
Prefiero las películas de acción porque son	I prefer action films because they are more		
más emocionantes.	exciting.		
No aguanto las películas del oeste porque	I can't stand western films because they		
me aburren.	bore me.		
Me encantan los musicales porque me	I love musicals because they put me in a		
ponen de buen humor.	good mood.		
Acabo de ver la nueva película de James	I've just seen the new James Bond film.		
Bond.			
Me gustó porque los efectos especiales	I liked it because the special effects were		
eran fantásticos	fantastic.		
No me gustó porque había demasiada	I didn't like it because there was too much		
violencia.	violence.		
Este fin de semana voy a ir al cine con mis	This weekend I'm going to go to the		
hermanos para celebrar mi cumpleaños.	cinema with my siblings to celebrate my		
	birthday.		
Tengo ganas de ver la nueva película de	I really want to see the new Rebel Wilson		
Rebel Wilson porque es mi actriz preferida.	film because she is my favourite actress.		



A. Advanced Adjectives: Characteristics		VOCABULARY: KS4 B. Advanced Verbs		C. Advanced Nouns	
16. munificent	generous	16. equate	regard as the same as	16. interlude	pause
17. nefarious	wicked	17. exacerbate	worsen	17. invective	Insulting language
18. ostensible	apparent	18. expedite	speed up	18. lexicon	vocabulary
20. pernicious	malicious	19. extol	praise	19. malevolence	wickedness
20. precipitous	rash	20. fabricate	invent to deceive	20. malice	spite
21. rapacious	aggressively greedy	21. incense	make furious	21. melancholy	sadness
22. risible	laughable	22. inhibit	prevent	22. modicum	little bit
23. Salubrious	wholesome	23. instigate	start	23. myriad	countless
24. Satiate	fully satisfy	24. interrogate	question	24. nadir	lowest point
25. Strident	forceful	25. lambast	criticise	25. nuance	subtle difference
26. Supercilious	haughty	26. mollify	to calm	26. panacea	cure-all
27. Taciturn	untalkative	27. ostracise	alienate	27. paragon	role model
28. Tenacious	determined	28. pacify	calm	28. plethora	lots of
29. ubiquitous	found everywhere	29. repudiate	reject	29. predilection	preference/liking
30. zealous	enthusiastic	30. vivify	make lively	30. zenith	highest point

LAST PAGE