



The John of Gaunt School  
A Community Academy

Name

TG

*Year 9*

*Knowledge Organisers*

*Term 4 2026*

# 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 combines dark humour with graffiti in a very unique stencil style.



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](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

## **Emory Douglas** [https://en.wikipedia.org/wiki/Emory\\_Douglas](https://en.wikipedia.org/wiki/Emory_Douglas) African American

activist. Born in 1943. A revolutionary artist and the Minister of Culture for the Black Panther Party, Douglas created iconography to represent black-American oppression



Graphic  
Bold  
Motivational  
Media Art

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 <a href="#">handwritten</a> 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 folder. 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.

Term 1 	What are my skills?	Resources on unifrog What are my skills workbook What are my skills ppt	These are the tasks on unifrog and the suggested time when to do them. You are given the title of the resources so that you can find them yourself but they will appear on unifrog. You will get an email notification. The tasks are tracked. The activities include the teacher powerpoint, which gives suggestions. Sometimes, it might be good to do the activity with a friend or parent so that you can share ideas. The powerpoints are designed for a class of 30 pupils and have the teacher notes to help you. When working on your own, it will take 15 – 30 mins for the activities and longer for the thinking. Create a folder in which to save your worksheets.
	What comes after school? The main pathways	What comes after school? The main pathways workbook What comes after school? The main pathways ppt	
Term 2 	Decision making – choosing what to study at KS4	Decision making – choosing what to study at KS4 workbook Decision making – choosing what to study at KS4 ppt	
	Subjects library treasure hunt	Subjects library treasure hunt workbook Subjects library treasure hunt ppt	
Term 3 	Taking control of your career journey	Taking control of your career journey workbook Taking control of your career journey ppt	
	Working and earning managing your money	Working and earning managing your money workbook Working and earning managing your money ppt	
Term 4 	Labour market information	What is the labour market workbook What is the labour market ppt	
	The locker	Adding to your locker ppt	
Term 5 	Skills and activities	Adding a skill ppt	
	Skills and activities	Adding an activity ppt	
Term 6 	Careers	Exploring the careers library ppt	
	The courses tool	Video Join a course	

Useful websites to use  
<https://www.johnofgauntschool.org/parents-and-carers/careers-information>  
<https://nationalcareers.service.gov.uk/>  
<https://www.gov.uk/apply-apprenticeship>  
<https://www.ucas.com/>  
<https://www.wiltshire.ac.uk/>  
<https://www.bathcollege.ac.uk/>

# 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 e-waste 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:

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/re-used? 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?

### Extracting 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 materials to use

### 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

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.

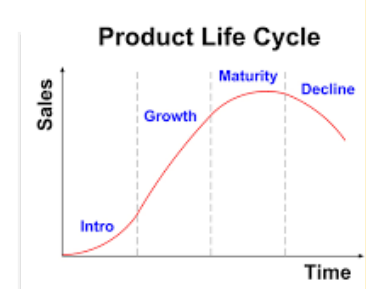
### Assembling parts

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

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
<b>Sustainability</b>	means meeting our own needs without compromising the ability of future generations to meet their own needs.
<b>Recycling</b>	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.



### 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.



### Recycling plastics

1 PET Polyethylene terephthalate	2 PE-HD Polyethylene (high density)	3 PVC Polyvinyl chloride	4 PE-LD Polyethylene (low density)	5 PP Polypropylene	6 PS Polystyrene	7 O Bisphenol A and others
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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?

**Key vocabulary used in 'Physical Theatre'**

Word	Definition
Base	The person in contact with the floor
Weight	The force going towards the floor
Direction	The direction of force from the body
Drive	The movement towards the direction
Dynamic	The strength of the movement
Focus	Where you re looking or where the action is aimed
Balance/ Counter balance	Distribution of weight
Lift	Using weight and counter balance to lift someone
Lean	Putting your weight on another person
Slapstick Comedy	Physical comedy style that involves pretend violence

**Key Assessment Areas**

1. Demonstrate understanding of how drama can be developed
2. Apply physical and vocal skills to a performance
3. Evaluate your own work and the work of others



Subject Specific ContentWhat is a Utopia?

- This is a place of perfection - an imagined 'perfect' world.
- This could be a government, social (living) conditions, laws, environment.

What is a Dystopia?

- It is an imagined world where everything is 'imperfect'.
- It will often be set in the future. It will show a world that links to the fears of society - it may dehumanise people (where they are treated like objects or animals). It may show a harsh, cruel and often very controlling government.

Senses

See: *What can you see? Zoom in to the smallest details.*

Touch: *What textures could you feel? E.g. Coarse, cool, dusty, silky, gritty, slimy*

Smell: *What smells could you describe? E.g. Aroma, overpowering, faint, intoxicating*

Hear: *What sounds could you describe? E.g. Murmur, shrill, rustle, blare, piercing, thumping*

Taste: *What tastes could you describe? E.g. Nauseating, bitter, stale, tantalising, sour*

Key Vocabulary, Spellings and Definitions

- 1) **Power** = When a person or group has the ability to do something or act in a particular way.
- 2) **Control** = When power is used to influence or direct another person's or an object's behaviour.
- 3) **Freedom** = When a person has the power or the right to speak, think or act as they want to.
- 4) **Totalitarian** = Those in power have complete control and do not allow people freedom to oppose (go against) them.
- 5) **Oppression** = When power is used in a way that is not fair or cruel.
- 6) **Indefinite** = When something will last for an unknown amount of time.
- 7) **Tremulous** = Describes when you are shaking or nervous
- 8) **Concept** = An abstract (not concrete) idea
- 9) **Post-Apocalyptic** = A world after an apocalypse (destroying of the world).
- 10) **Binary Opposition** = Where two opposites move the narrative (story) forward - e.g. good vs evil / light vs dark.

VocabularyColour Thesaurus:

- 1) **White** = ivory, salt, bone, pearl, porcelain
- 2) **Red** = scarlet, blood, ruby, cherry, mahogany
- 3) **Brown** = chocolate, mocha, cedar, caramel, tawny
- 4) **Grey** = graphite, charcoal, slate, ash, pewter
- 5) **Black** = raven, ink, midnight, coal, obsidian,

## Farming across the UK

Some parts of the UK have excellent soil for crops, while others are used for cattle, sheep, pigs and poultry.

### North West England, Wales and Scotland

Sheep and beef cattle are most suited to the land and colder temperatures.

### Northern Ireland

Sheep, cattle, pigs and dairy are the largest commodity sectors.

### South West England

Dairy farming is suited to this region due to the quality grass grown.

### East of England

Arable crops such as wheat and barley and vegetables are grown.

### South East of England and lowlands of Scotland

Grain, potatoes and sugar beet are grown along with vegetables.

## Farming types in the UK

There are seven main types of farming in the UK:

- **aquaculture** – farming fish in fresh or sea water;
- **arable** – growing of crops and cereals;
- **horticulture** – production of flowers, fruit, vegetables or ornamental plants;
- **market gardening** – small scale production of fruit and vegetables;
- **mixed farming** – combination of arable and pastoral;
- **pastoral** – rearing and production of animals, including pigs, chickens, hill farming sheep, beef and dairy cattle;
- **viticulture** – grapes.

## Food provenance

Food provenance is about where food is grown, caught or reared, and how it was produced. Food certification and assurance schemes guarantee defined standards of food safety or animal welfare. There are many in the UK, including:



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



## Key vocab

Word	Definition
<b>Cuisine</b>	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.
<b>Multi cultural</b>	People from a variety of cultures or backgrounds
<b>Food waste</b>	Food that is not consumed or used that goes to landfill.
<b>Food choice</b>	Foods that are chosen due to various reasons - this can dietary, religious or intolerances.
<b>Allergies</b>	When someone can have or has had an allergic reaction (adverse reaction) to a food source.
<b>Vegan</b>	A person who does not eat any food derived from animals and who typically does not use other animal products.
<b>Seasonal</b>	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.
<b>Food Miles</b>	The distance our food travels from farm to fork, the more it travels the higher its carbon footprint, therefore it has a negative impact upon the environment.

More info can be found here:

<https://www.foodfactoflife.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.

# French Knowledge Organiser Term 4

## ALLER – TO GO

### UNIT 3 – ALLER

Je	vais
Tu	vas
Il / Elle / On	va
Nous	allons
Vous	allez
Ils / Elles	vont

WHERE I GO

Je vais à la plage avec mon cheval

Salut!

WHAT I GO FOR

J'y vais pour nager

HOW I GO

J'y vais en voiture ou à cheval

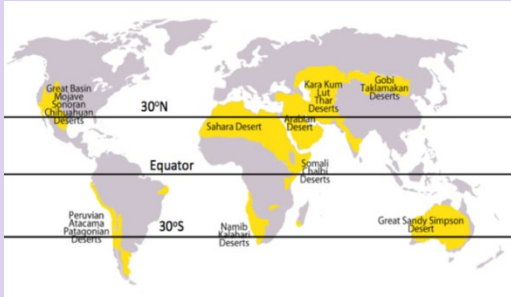
Où vas-tu?

<b>Je</b> <i>I</i>	<b>vais</b> <i>go</i>	<b>de temps en temps</b> <i>from time to time</i>	<b>chez</b> <i>to</i>	<b>Marie</b> <i>Marie's house</i>	
			<b>à</b> <i>to</i>	<b>Bruxelles</b> <b>Toulouse</b>	
<b>Tu</b> <i>You</i>	<b>vas</b> <i>go</i>	<b>parfois</b> <i>sometimes</i>	<b>rarement</b> <i>rarely</i>	<b>collège</b> <b>gymnase</b>	<i>school</i> <i>gym</i>
					<b>Il/Elle</b> <i>He/She</i>
<b>On</b> <i>We</i>	<b>va</b> <i>go</i>	<b>toujours</b> <i>always</i>	<b>supermarché</b>	<i>supermarket</i>	
				<b>Nous</b> <i>We</i>	<b>allons</b> <i>go</i>
<b>Vous</b> <i>You</i> <i>guys/girls</i>	<b>allez</b> <i>go</i>	<b>(presque) tous les week-ends</b> <i>(nearly) every weekend</i>	<b>magasin de</b> <i>(...) shop</i>		
				<b>Ils/Elles</b> <i>They</i>	<b>vont</b> <i>go</i>
<b>une fois par semaine</b> <i>once a week</i>	<b>les lundis</b> <b>les mardis</b> <b>les mercredis</b> <b>les jeudis</b> <b>les vendredis</b> <b>les week-ends</b>	<i>Monday</i> <i>Tuesday</i> <i>Wednesday</i> <i>Thursday</i> <i>Friday</i> <i>weekend</i>			

# KS3 Geography: Y9 Deserts

## Where are the Deserts?

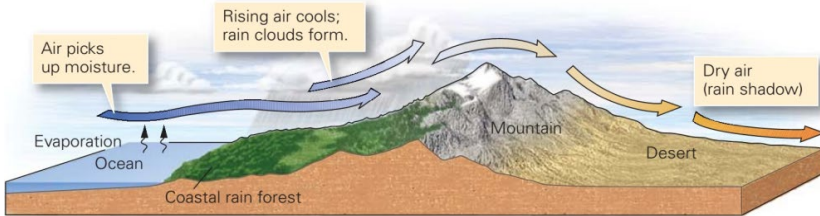
Many deserts are found in bands along **30 degrees latitude north and 30 degrees latitude south**



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.



## 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

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

## 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 and animal adaptations

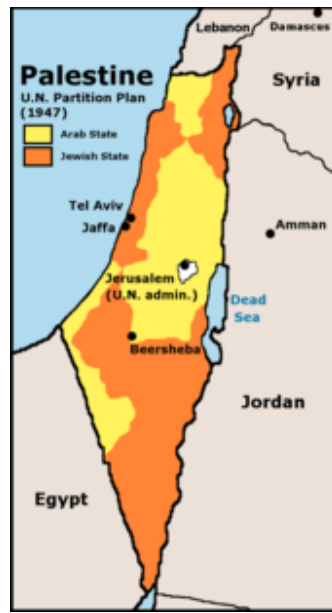
- Cape foxes have many desert adaptations, including fur-covered feet, heat-radiating ears and pale fur that offers excellent camouflage in the sand.
- Beetles in the Namib desert have dark, shiny shells. At day break they climb to the top of the sand dunes, turn their back to the sea and collect fog 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: The Creation of the Welfare State

A- The ideas below came out of an investigation by **William Beveridge** after WW2 on how Britain might help it's most vulnerable people – he wrote the **1942 Beveridge Report**

B - **The NHS** – was created in 1948 after efforts from Labour politician **Aneurin Bevan**



### CREATION OF ISRAEL

#### ZIONISM

1. Jews saw Palestine as their homeland
2. Romans expel Jews from Palestine (around 70AD)

#### GB role

3. Britain awarded Palestine as a British colony after WW1. Jewish immigrants clash with Arabs. Terrorism on both sides between Arab and Jewish terrorists.

#### United Nations

4. In 1948 the UN creates Jewish state of Israel as response to land and lives lost during the Holocaust

#### Ongoing conflict

5. Ongoing conflict between Israel and Arab nations (Iraq, Egypt, Syria, Jordan, Saudi Arabia, Lebanon).
6. Ongoing dispute over border areas of Israel – Palestinians feel their land has been illegally taken by Israel. Regular terrorist attacks on Israel by Palestinians. Regular responses by Israeli army.

C - **FOR CHILDREN** (Baby clinics / cheap or free milk / Reduced or free-school meals / free education / free dental and optical care)

D - **FOR ADULTS** (Unemployment pay – “dole” (now Jobseeker’s Allowance) / Sick pay / Family Allowances / cheap medicine / free doctors / free dentists / free hospitals / benefits for low paid or disabled workers – housing etc / Maternity grants for mothers)

E - **FOR ELDERLY** (Old Age Pensions / subsidised care homes / meals at home / subsidised funerals / home help)

**1945** – School Leaving Age raised to 15

**1946** – **School Milk Act** (3<sup>rd</sup> of a pint free to all schoolchildren)

**By 1948** – **280,000 council houses** a year being built

F - **OPPOSITION to Welfare State:** Doctors worried over ‘government control’ and reduced income / some wealthier taxpayers would fund the benefits of the welfare state but not get huge reward

#### WHY did Britain decolonise after WW2?

7. WW1 & WW2 costs make GB unable to afford to “police her Empire”
8. New global (and nuclear) superpowers (USA / USSR) disapprove – Belgium & France decolonising
9. After defeat of Hitler, Empires = racist and exploitative, NOT democracy and freedom
10. GB looked weak in WW2 so many countries begin to fight harder for independence
11. African and Asian culture and traditions beginning to be celebrated and recognised – yet under British rule these countries were forced into British traditions.

**INDEPENDENCE WHEN?** India, Pakistan (1948) Ghana *The Gold Coast* (1957), Malaysia (1957), Nigeria (1960), Uganda (1962), Kenya (1963), Zimbabwe *Rhodesia* (1980)

## History – KPI 4: Impact of World War II

Key term	Definition
Zionism	Political idea of the creation of a Jewish state in Palestine
Partition	To divide or separate a nation
Nationalism	Political idea of a nation being independent of outside rule
Decolonise	When a nation reduces its colonies (foreign countries it rules over)
Independence	When a country gains self-rule
Democracy	System where a country can elect its rulers
The Commonwealth	Organisation of countries with close sporting and trade links to Britain
Welfare State	System where government helps care for the sick, elderly and unemployed
NHS (National Health Service)	Created in 1948 – provide free healthcare and treatment for all
National Insurance	Money paid from workers’ wages to contribute towards the welfare state
Council houses	Homes built by councils for less wealthy people to be able to rent
Cold War	When countries “fight” without directly attacking each other (by spying, threats, propaganda, trade)
To nationalise	To change a business from being privately owned into state-owned.

Challenge yourself to learn more about the world after WW2 here:

<https://www.bbc.co.uk/bitesize/topics/zn29cmn>

**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.

**Diagrams:**



Drum Kit

Electric guitar



Bass guitar



Drum Machine

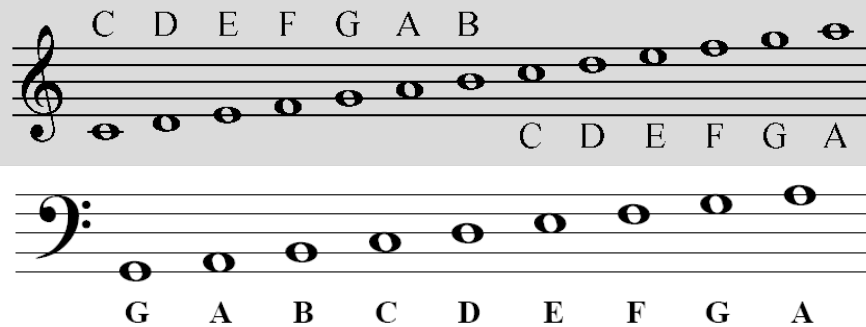
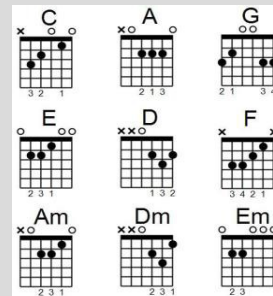


Keyboard/  
Synthesiser



Vocals  
Backing Vocals

Acoustic guitar



Note	Name	Beats
	Whole note	4 beats
	Half note	2 beats
	Quarter note	1 beat
	Eighth note	½ beat
	Sixteenth note	¼ beat

**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      |

1.

**TAKING RESPONSIBILITY FOR A POSITIVE LEARNING ENVIRONMENT**

- Being a role model to fellow students in your approach to learning
- Promote and demand high levels of effort from your peers, group or team
- Praise regularly when appropriate
- Recognise high levels of effort, improvement and performance
- Support and encourage your peers when they are challenged
- Take responsibility for the equipment you use and set up drills quickly and accurately
- Lead drills, be a critical friend and a coach



2.

**STRATEGIES TO OVERCOME MENTAL AND PHYSICAL CHALLENGES**

- **Feel your feelings.** Realise that it is okay to feel frustration, sad, angry or any other emotion. That's an athlete that cares about their performances and progression!
- **Make a plan** so that you know what you will do to improve
- **Know that others struggle** and that everyone needs to struggle to improve
- **Reach out** and ask for help when you need it
- **Accept Support**, don't be shy, ashamed or too proud to accept advice
- **Help Others** and it will help not only your self confidence but your knowledge and understanding of techniques and tactics
- **Enjoy!** Whatever you are working on, whether it is your favourite activity or not, find the fun in what you are doing. Make it fun
- **No shame of your performances** if you have given your best efforts
- **Be proud of your efforts** rather than your outcomes
- **Celebrate the small steps**, recognise achievements and improvements however



3.

**REGULARLY TAKING THE INITIATIVE AND DECIDING YOUR NEXT STEPS FOR IMPROVEMENT**

- Access and utilise a range of sources of information, guidance and feedback from verbal, recorded images, data from measurements and personal reflection
- Evaluate your performances and decide how you will alter your techniques or strategies next time
- Reflect on your plans and actions for improvements with a friend or your teacher



**Key vocab**

Word	Definition
Responsibility	the opportunity or ability to act independently and take decisions without authorization
Resilience	the capacity to recover quickly from difficulties
Decision Making	The action or process of making important decisions

<b>3. PERSONAL ME</b>			
<b>RESPONSIBILITY</b>			
1. KNOW HOW TO BE RESPONSIBLE FOR OTHERS' LEARNING			
<b>RESILIENCE</b>			
2. KNOW DIFFERENT STRATEGIES TO OVERCOME MENTAL AND PHYSICAL CHALLENGES			
<b>DECISION MAKING</b>			
3. MAKE EFFECTIVE AND AUTONOMOUS DECISIONS FOR SUCCESS WITH CONSISTENCY			

## Year 9 Term 3 & 4 Ethics

Key word/concept	Definition
Ethics	The study of right and wrong, and how people should act
Morality	Ideas or rules about what is right or wrong behaviour
Absolute morality	Belief that some actions are always right or always wrong, no matter the situation
Relative morality	Belief that what is right/wrong can depend on the situation, culture or people involved
Sanctity of Life	Belief that all human life is sacred and should not be taken by humans
Quality of Life	The idea that how good/comfortable a person's life is can affect decisions about medical treatment etc
Abortion	Medical process of ending a pregnancy so that the baby does not develop/is not born
Euthanasia	The act of ending someone's life to stop their suffering, usually from serious/terminal illness
Animal Testing	Using animals in experiments to test medicines, treatments, cosmetics
Fertility Treatment	Medical help that allows people to have children, such as IVF
Moral Dilemma	A situation where a person must choose between two or more actions that have ethical reasons for/against
Rights	Things people are believed to deserve, such as right to life, freedom and fair treatment

### Key Content:

Ethical issues like **abortion, euthanasia, animal testing, and fertility treatment** raise important questions about life, death, and human choice. People often disagree about what is right or wrong, and both **religious** and **non-religious** views help shape these opinions.

**Abortion** is the ending of a pregnancy. Many **religious believers**, especially some Christians and Muslims, believe in the **sanctity of life**—that life is sacred from the moment of conception. They may think abortion is usually wrong. Others, including some non-religious people, focus on the **quality of life**, believing women should have the right to choose, especially in difficult situations.

**Euthanasia**, or assisted dying, raises questions about whether people should be allowed to end suffering through death. Some religious groups oppose it, saying only God should decide when life ends. Non-religious people may support it if it helps someone die peacefully and with dignity.

**Animal testing** is used to develop medicines and products. Many believe it saves human lives, while others say it is cruel and causes unnecessary suffering. Some religious believers argue that humans are responsible for caring for animals, while others say human life should come first.

**Fertility treatments** like IVF help people have children. Some religious believers accept this as a way of healing, while others worry it interferes with God's plan or destroys embryos. Non-religious people usually see it as a positive scientific advancement.

These issues show how ethics is about balancing compassion, respect, and responsibility when making difficult choices. In this part of the topic we will explore your personal responses to these ethical issues.

# AQA Physics (Combined Science) Unit 6.1: Energy

## Required Practical

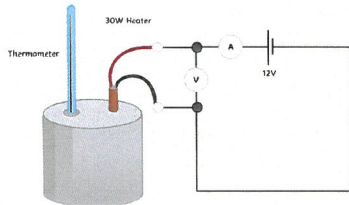
### Investigating Specific Heat Capacity

independent variable – material

dependent variable – specific heat capacity

control variables – insulating layer, initial temperature, time taken

$$\Delta E = m \times c \times \Delta\theta$$



### Method:

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

## Equations

$$E = \frac{1}{2}mv^2$$

$$E_p = mgh$$

$$E_e = \frac{1}{2}ke^2$$

$$\Delta E = m \times c \times \Delta\theta$$

$$P = \frac{E}{t}$$

$$P = \frac{W}{t}$$

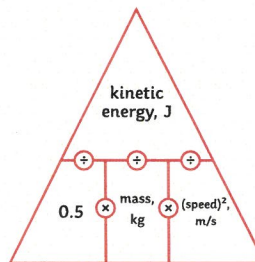
## Kinetic and Potential Energy Stores

### Movement Energy

$$\text{kinetic energy} = \frac{1}{2} \times \text{mass} \times \text{speed}^2$$

$$E_k = \frac{1}{2}mv^2$$

(J) (kg)(m/s)

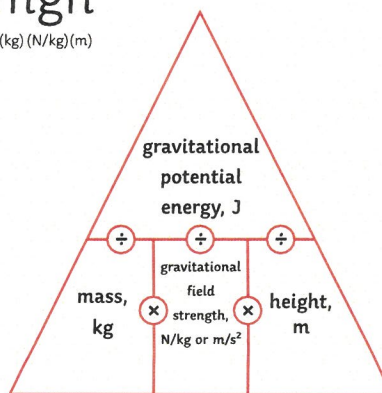


When something is off the ground, it has gravitational potential energy

$$\text{gravitational potential energy} = \text{mass} \times \text{gravitational field strength} \times \text{height}$$

$$E_p = mgh$$

(J) (kg)(N/kg)(m)



When an object falls, it loses gravitational potential energy and gains kinetic energy.

Stretching an object will give it elastic potential energy.

$$\text{elastic potential energy} = \frac{1}{2} \times \text{spring constant} \times \text{extension}^2$$

$$E_e = \frac{1}{2}ke^2$$

(J) (N)(m)

### Transferring Energy by Heating

Heating a material transfers the energy to its thermal energy store - the temperature increases.

E.g. a kettle: energy is transferred to the thermal energy store of the kettle. Energy is then transferred by heating to the water's thermal energy store. The temperature of the water will then increase.

Some materials need more energy to increase their temperature than others.

**change in thermal energy = mass × specific heat capacity × temperature change**

$$\Delta E = m \times c \times \Delta\theta$$

(J) (kg) (J/kg°C) (°C)

Specific heat capacity is the amount of energy needed to raise the temperature of 1kg of a material by 1°C.



### 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.

### Conservation of Energy

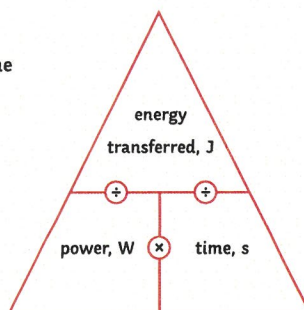
Energy can never be created or destroyed, just transferred from one form to another. Some energy is transferred usefully and some energy gets transferred into the environment. This is mostly wasted energy.

### Power

Power is the rate of transfer of energy – the amount of work done in a given time.

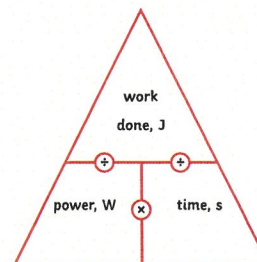
power = energy transferred ÷ time

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



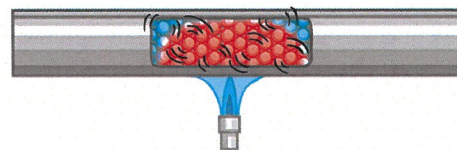
power = work done ÷ time

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



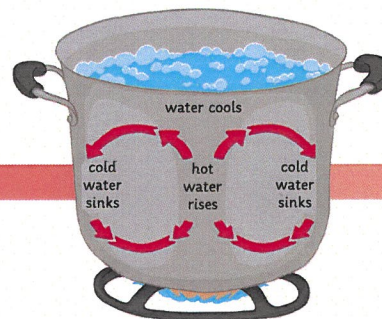
### Energy Transfer

**Lubrication reduces the amount of friction.** When an object moves, there are frictional forces acting. Some energy is lost into the environment. Lubricants, such as oil, can be used to reduce the friction between the surfaces.



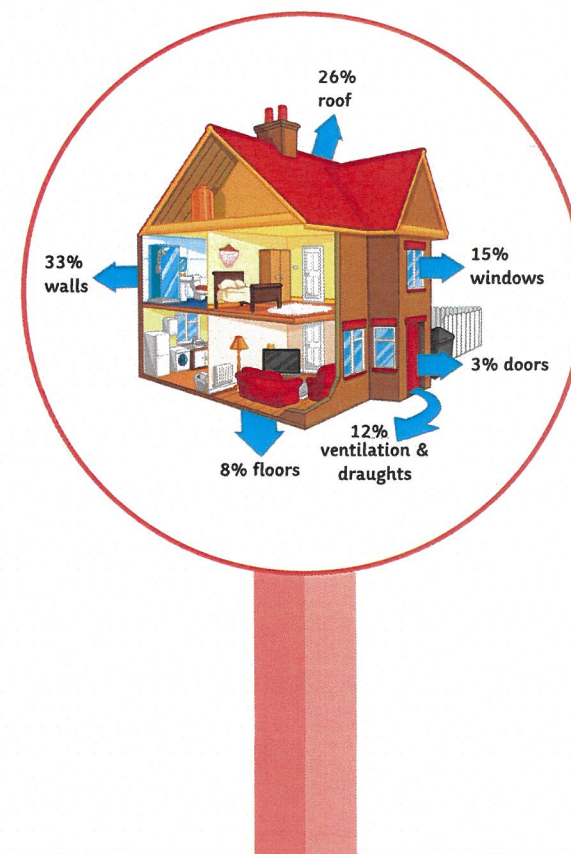
**Conduction** – when a solid is heated, the particles vibrate and collide more, and the energy is transferred.

**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.



**Insulation** – reduces the amount of heat lost. In your home, you can prevent heat loss in a number of ways:

- thick walls;
- thermal insulation, such as:
- loft insulation (reducing convection);
- cavity walls (reduces conduction and convection);
- double glazing (reduces conduction).

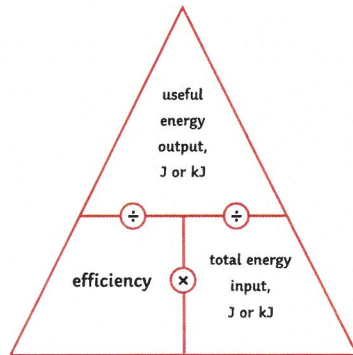


### Efficiency

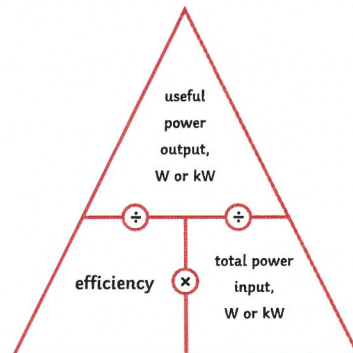
When energy is transferred, some energy is wasted. The less energy that is wasted during the transfer, the more efficient the transfer.

There are two equations to calculate efficiency:

$$\text{efficiency} = \frac{\text{useful output energy transfer}}{\text{total input energy transfer}}$$



$$\text{efficiency} = \frac{\text{useful power output}}{\text{total power input}}$$



Some energy is always wasted. Nothing is 100% efficient.

### Efficiency

Non-renewable – coal, oil, gas - they will all run out, they damage the environment, but provide most of the energy.

Renewable – they will never run out, can be unreliable and do not provide as much energy.

Energy Resource	Advantages	Disadvantages
solar – using sunlight	Renewable, no pollution, in sunny countries it is very reliable.	Lots of energy needed to build, only works during the day, cannot increase power if needed.
geothermal – using the energy of hot rocks	Renewable and reliable as the rocks are always hot. Power stations have a small impact on environment.	May release some greenhouse gases and only found in specific places.
wind – using turbines	Renewable, no pollution, no lasting damage to the environment, minimal running cost.	Not as reliable, do not work when there is no wind, cannot increase supply if needed.
hydroelectric – uses a dam	Renewable, no pollution, can increase supply if needed.	A big impact on the environment. Animals and plants may lose their habitats.
wave power – wave powered turbines	Renewable, no pollution.	Disturbs the seabed and habitats of animals. Unreliable.
tidal barrages – big dams across rivers	Renewable, very reliable, no pollution.	Changes the habitats of wildlife, fish can be killed in the turbines.
biofuels	Renewable, reliable, carbon neutral.	High costs, growing biofuels may cause a problem with regards to space, clearance of natural forests.
non-renewable – fossil fuels	Reliable, enough to meet current demand, can produce more energy when there is more demand.	Running out, release CO <sub>2</sub> , leading to global warming, and also release SO <sub>2</sub> which causes acid rain.

**Trends in energy resources** – most of our electricity is generated by burning fossil fuels and nuclear. The UK is trying to increase the amount of renewable energy resources. The governments are aware that non-renewable energy resources are running out; targets of renewable resources have been set. Electric and hybrid cars are also now on the market.

However, changing the fuels we use and building renewable power plants cost money. Many people are against the building of the plants near them and do not want to pay the extra in their energy bills. Hybrid and electric cars are also quite expensive.



# Term 4 Year 8 Media



Prefiero ver una película de  
I prefer to see/watch

amor  
a romantic film  
terror  
a horror film  
acción  
an action film  
aventuras  
an adventure film  
animación  
an animated film  
ciencia ficción  
a sci-fi film  
fantasía  
a fantasy film  
extranjera  
a foreign film

en el cine  
in the cinema  
en la tele  
on TV  
en casa  
at home  
en mi tableta  
on my tablet  
en el estadio  
in the stadium  
en la plaza de toros  
in the bull ring  
en directo  
live

porque  
ya que  
dado que  
puesto que  
because

el ambiente  
the atmosphere  
la imagen  
the image  
la gran pantalla  
the big screen

es mejor  
is better

Prefiero ver  
I prefer to see/watch  
  
Me chifla/mola ver  
I am crazy about watching  
  
Si tuviera la oportunidad, me  
gustaría ver  
If I had the opportunity, I  
would like to watch

una corrida de toros  
a bullfight  
un partido  
a match  
un concierto  
a concert  
los documentales  
documentaries  
los concursos  
gameshows  
un reality  
a reality tv show  
el telediario  
the news  
un culebrón/una telenovela  
a soap

los asientos/las butacas son (in)cómodos  
the seats are (un)comfortable  
  
hay demasiadas personas  
there are too many people  
  
las entradas son caras/baratas  
the tickets are expensive/cheap  
  
los tráilers son largos  
the trailers are long  
  
los otros espectadores me molestan  
the other spectators annoy me  
  
me gusta quedarme en casa  
I like to stay at home

**LAST PAGE**