



The John of Gaunt School  
A Community Academy

Name

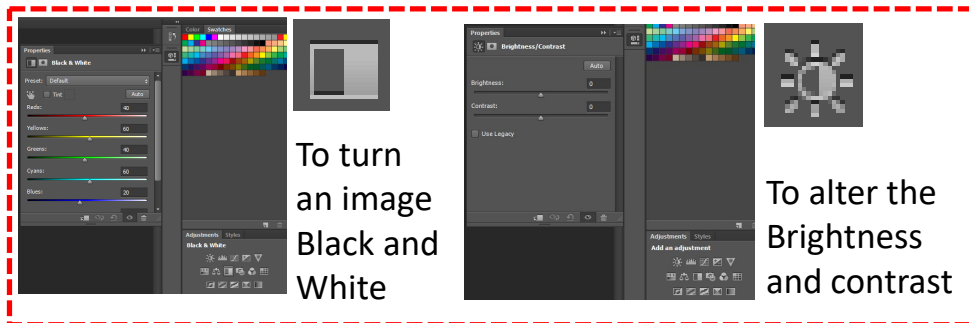
TG

*Year 9*

*Knowledge Organisers*

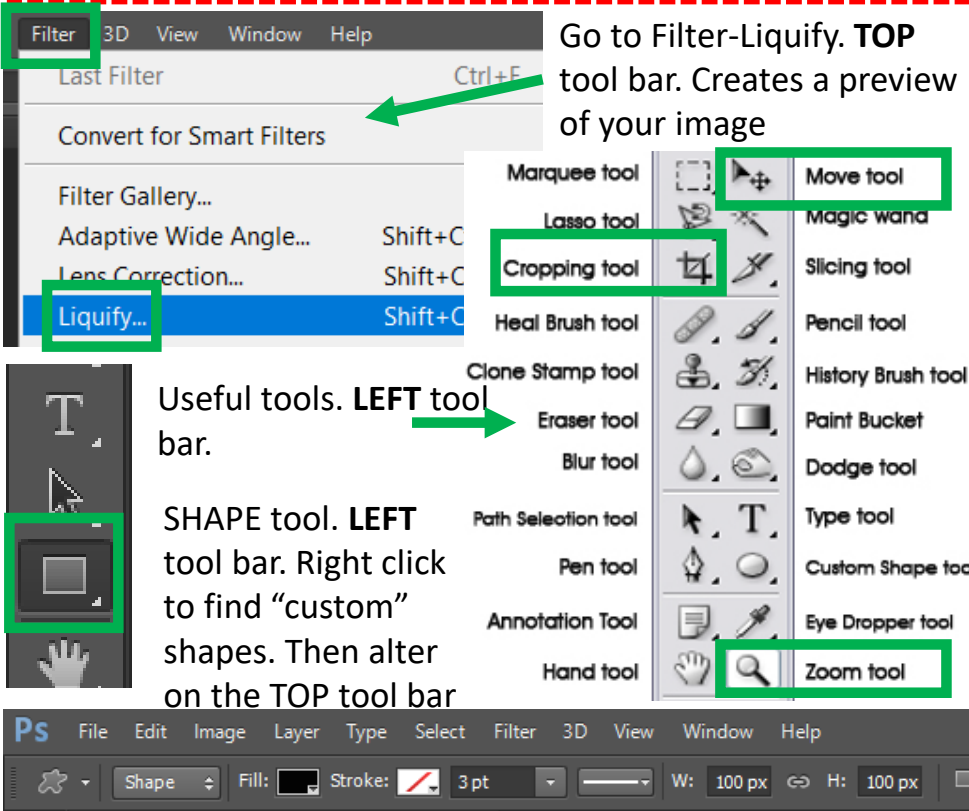
*Term 2 - 2024*

# Year 9. Term 2. IDENTITY PROJECT



To turn an image Black and White

To alter the Brightness and contrast



Go to Filter-Liquify. TOP tool bar. Creates a preview of your image

Useful tools. LEFT tool bar.

SHAPE tool. LEFT tool bar. Right click to find "custom" shapes. Then alter on the TOP tool bar

**Portrait:** (Portraits, Portraiture) The representation of a person, in which the face and its expression is predominant. The intent is to display the likeness, personality, and even the mood of the person.

**Identity:** (Identities, Identify) The distinguishing character or personality of an individual

**Collage:** a piece of art made by sticking various different materials such as photographs and pieces of paper or fabric on to a backing.

**Expression:** (Expressions, Expressive) The action of making known one's thoughts or feelings. A look on someone's face that conveys a particular emotion.

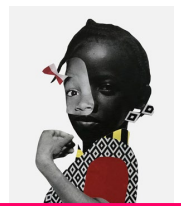
**Emotion:** (Emotions, Emotional) Psychological states associated with thoughts, feelings, behavioural responses, and a degree of pleasure or displeasure.

**Manipulate:** (Manipulated, Manipulates) To control something using the hands.

**Inspired:** (Inspire, Inspirational)\_To move someone to act, create, or feel emotions.

**Colour:** (colours, Colourful, colourless) i.e. Red, Yellow, Blue. How the eye perceives light waves.

**Deborah Roberts**  
<https://www.deborahroberts.com/collage>



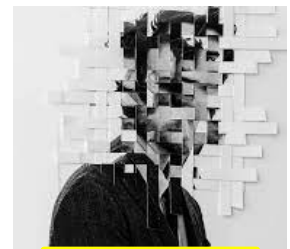
Limited Colour  
 Culture  
 Collage  
 Pattern

**Hattie Stewart**  
[www.hattiestewart.com](http://www.hattiestewart.com)



Colour  
 Bold  
 Bright  
 Media  
 Childhood

**Edward Honaker**  
[www.edwardhonaker.com/booktwo](http://www.edwardhonaker.com/booktwo)



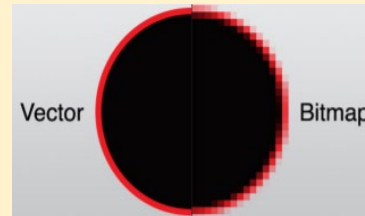
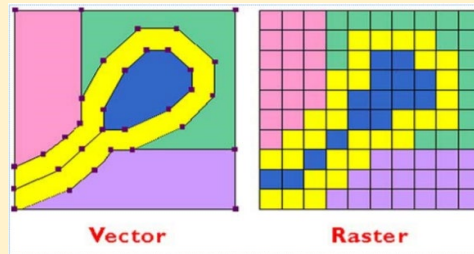
Grey-scale  
 Emotion  
 Personal  
 Dis-connect

**Key content**

**Bitmap or vector graphic?**

When deciding whether an image should be a bitmap or vector graphic, you should ask yourself the following questions:

- ☛ Does the image need to be resized?
- ☛ Does the image need to be drawn to scale?
- ☛ Do you need the image to look real?
- ☛ Do you have any restrictions on the file size?



**Comparison of bitmap and vector graphics**

	Bitmap graphics	Vector graphics
<b>What are they made up of?</b>	Pixels of different colours	Objects
<b>What can be edited?</b>	Individual pixels	Individual objects
<b>What is the file size?</b>	Large, as the computer stores details of every pixel	Small, as the computer stores details of objects, which do not require much memory
<b>What happens when they are resized?</b>	They lose quality	They do not lose quality
<b>How real do they look?</b>	Real	Not real (many of them look like cartoon images)
<b>Native formats that the software can read</b>	.bmp	.svg
<b>Common file formats</b>	.bmp, .dib, jpeg, gif, tiff, .png	.cgm, .svg, .odg, .eps, .xml

**File size compression**

**Lossy compression**

- Data is removed from the file to reduce the size of the file.
- The process cannot be reversed, data loss is permanent
- Increased compression introduces a greater reduction of image quality
- Ideal for communication over the internet and viewing on small screens

**Lossless compression**

- All original image quality is retained, hence no loss
- Slight decrease in file size
- Ideal for archiving images to retain original quality
- Used for large images, such as posters and billboards

Different file types	
<b>BMP</b>	Image
<b>JPG</b>	
<b>GIF</b>	
<b>PNG</b>	
<b>TIF</b>	

More info can be found here:  
 BBC BiteSize Graphics:  
<https://www.bbc.co.uk/bitesize/guides/zv2v4wx/revision/1>

DESIGN TECHNOLOGY YEAR 9 MODULE 2 MATERIALS

**Polyethylene Terephthalate**



PET is commonly used in commercially sold water bottles as it is light, strong and tough.



**High-Density Polyethylene**



HDPE is commonly used in products that have to be stiff, strong and lightweight, such as milk bottles and plastic pipes.



**Polyvinyl Chloride**



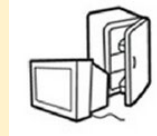
PVC can be flexible or rigid but also brittle. Used for toys, flooring, packaging.



**Polypropylene**



PP is used to make food containers, cases for products and clothing.



Tough, flexible and available in bright colours.

**Other plastics such as Acrylic**



PMMA (acrylic) is hard, stiff and weather resistant but quite brittle. Used for helmets, signs and clear plastic products such as glasses.



**Types of manufactured boards**

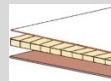
Plywood



Medium Density Fibre board (MDF)



Block board



Acrylic



Chip board



Corrugated card



**Advantages of manufactured boards**

- Large sheet sizes
- Covers large areas easily
- Uniform thickness
- Stable – no shrinkage
- Do not warp
- Uses waste materials efficiently
- Little waste
- Often coloured or coated to make it look better.

Key Word	Definition
<b>Compartments</b>	A separate section or part of a structure or container.
<b>Temporary fixing</b>	A method of joining together a product for a short amount of time so that you can work on it easily.
<b>Interior</b>	Situated on or relating to the inside of something.
<b>Decoration</b>	The activity of making something look more attractive by putting things on it or around it.
<b>Inlay</b>	Embedding pieces of a different material in it, flush with its surface.
<b>Flat Pack</b>	When a product is stored flat to be assembled later into its final shape.
<b>Thermo plastic</b>	A plastic that can be formed and reformed using heat.
<b>Thermoset Plastic</b>	A plastic that once formed cannot be reshaped.

**Finishing techniques for woods and manufactured boards**

There are many ways of finishing products. Paint effects are just one of them. Matt, satin and gloss form the most common type of paint. Fancy paints such as; chalk paint and crackle glaze are available. Stencils also give an interesting finish.

Wood can also be stained and varnished to enhance the appearance of the wood.

**Extension task**

Find out how plastics are made.

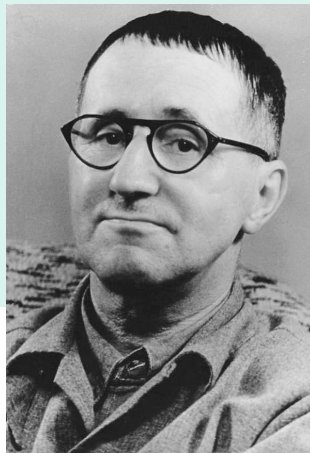
## Drama

Introducing, **Bertolt Brecht**. He was a German practitioner, playwright and poet who evolved 'Epic Theatre.'

**Epic Theatre** was made to challenge an audience intellectually by making theatre about social issues such as the divide between rich and poor.

**Brecht** did not want his audience to have an emotional response to the characters. He wanted you to care about the SOCIAL ISSUE rather than the characters.

He used techniques to try and **"alienate"** the audience from the performance.



### Key terminology

## BERTOLT BRECHT AND EPIC THEATRE

Word	Definition
Bertolt Brecht	A German practitioner who evolved 'Epic Theatre'
Verfremdungseffekt	The distancing effect so that an audience is reminded they are watching a play
Gestus	An acting technique which combines gesture with attitude
Didactic	Theatre that intends to teach an audience about social issues such as global warming, cyber bullying etc
Placards	Signs that are held up during performance e.g. 'Five years later', 'applause', 'Enter Doctor and Patient'
Intonation	The rise and fall of a persons' voice
Demeanour	A persons' attitude
Gait	The energy with which someone walks
Proxemics	How close or far away actors are stood on stage
Eye-line	Where an actor is looking and what this communicates

You can watch a video about Brecht by typing in "Bertolt Brecht and Epic Theater: Crash Course Theater #44" into Youtube.

You can develop your vocal and physical skills by typing 'Oak National Academy' into Google, clicking Key Stage 3, Drama and 'Posture, Gesture and Voice' in performance.



## WW1 Poetry - English

### Subject Specific Content (QLAs R1 and R5)

1. **Jessie Pope** was an English poet - she wrote patriotic and motivational poems which glorified war and persuaded men to fight.
2. **Henrietta Taylor** was a nurse from the North East of England and served in the French Red Cross during WW1.
3. **Gerrit Engelke** is a German poet, who is often compared to Wilfred Owen. He fought in WW1 and wrote poems urging men on both sides to realise how much they had in common. He died in the last weeks before Armistice.
4. **Wilfred Owen** is remembered as one of the most passionate voices of WW1. Owen wanted to show the 'Pity of War'. He was wounded and suffered shell shock. He won a Military Cross, but he died in action days before the end of the war.

### Key Vocabulary, Spellings and Definitions (QLA R3):

1. **Simile** - Comparison using 'like' or 'as'
2. **Metaphor** - Describing something as if it is something else
3. **Personification** - Using human feelings or actions to describe an object/thing
4. **Direct Address** - Addressing the audience using the pronoun 'you'.
5. **Satire** - Method that uses irony, ridicule, humour or exaggeration to show a problem in the World.
6. **Enjambment** - Where the meaning of the line continues over onto the next
7. **Caesura** - Where there is a pause in a line of poetry.
8. **Fricative sounds** - A fricative sound is one where you partly stop your airflow to create a consonant such as 'f' or 'v'.
9. **Sibilance** - A figure of speech where a hissing or hushing sound is created within a group of words through the repetition of "s" sounds.
10. **Consonance** - The repetition of similar-sounding consonants close together.

### Key Terms - WW1 (QLAs R1 and R5):

1. **Propaganda** = A form of communication that is used to persuade people (posters, radio, adverts etc)
2. **Patriotism** = Supporting and loving your country.
3. **Armistice** = The end of the war - agreement to stop fighting
4. **Experience** = An event or occurrence that you go through
5. **Front Line** = The place where two opposite armies are facing each other and fighting is going on.
6. **Dulce Et Decorum Est Pro Patria Mori** = Latin phrase - it means: It is sweet and fitting to die for one's country.

### Key Quotations (QLA R2)

1. **Key Quotation: 'Who's For the Game?'**  
*Poet:* Jessie Pope *Title:* Who's For The Game?
2. **Key Quotation: 'If you can keep your head ...'**  
*Poet:* Henrietta Taylor *Title:* No Title
3. **Key Quotation: 'The green sea is rising'**  
*Poet:* Gerrit Engelke *Title:* To The Soldiers of the Great War
4. **Key Quotation: 'Under a green sea, I saw him drowning'**  
*Poet:* Wilfred Owen *Title:* Dulce Et Decorum Est

## Food Preparation 2 yr. 9

### Key content

#### Food choice

Food choices for a balanced diet depend on many factors, such as:

**Advertising**, cost, cultural or religious practices;, environmental and **ethical** considerations; food availability; food preferences; food **provenance**; health concerns; individual energy and nutrient needs; portion size; social considerations.

#### Cultural or religious practices

People around the world choose to eat or avoid certain food due to their cultural or religious practices. For example, Muslims will not eat meat such as beef or lamb that has not been slaughtered by the halal method, while those of the Jewish religion will only eat foods that are **Kosher**.

#### Seasonal Foods in the UK

Fruit and vegetables naturally grow in cycles and ripen during a certain season each year.

When they are in season they are harvested. To have these foods all year we transport them from other countries to our own.

Buying and eating food that is season means that it is fresh, has the best flavour, texture and colour, and has optimum nutritional value. Other benefits include lower cost, supporting local growers, reduced energy needed to grow and transport the ingredients and food.

#### Food waste

Every year in the UK, seven to ten million tons of food are wasted. It is thought that approximately 50% of the food wasted is still edible and 30% World Wide. The cost of food waste is significant – estimates show that it costs an average family £700 per year. Food waste is produced all stages of food production from farm to fork, but the most is within the home. This equates to 21million tonnes of CO2 emissions and schools contribute to 123,000 tonnes of this each year – the equivalent of 10,000 teachers! Also wasted – energy, water, habitat, especially fruits / vegetables.

### Diagrams:



Religion	Pork	Beef	Lamb	Chicken	Fish
Islam	x	Halal only	Halal only	Halal only	✓
Hinduism	x	x	✓	✓	✓
Judaism	x	Kosher only	Kosher only	Kosher only	✓
Sikhism	x	x	✓	✓	✓
Buddism (strict)	x	x	x	x	x
Seventh-day Adventist Church	x	x	x	✓	✓
Rastafari movement	x	x	x	x	x

### Key vocab

## Food Choice - Religion, Vegan & Vegetarian

Word	Definition
<b>Advertising</b>	Advertising is a form of communication for marketing and used to encourage, persuade, or manipulate an audience to continue or take some new action.
<b>Ethical</b>	Relating to personal beliefs about what is morally right and wrong.
<b>Food provenance</b>	Knowing where food was grown, caught or reared and how it was produced.
<b>Religion</b>	A particular system of faith and worship.
<b>Seasonal food</b>	Food grown at a particular time of year summer, winter, autumn, spring. e.g. strawberries = summer, spring time – radish, winter - sprouts.
<b>Vegan</b>	Abstaining from the use of animal products, particularly in diet, and an associated philosophy that rejects the commodity status of animals.
<b>Vegetarian</b>	Abstaining from the consumption of meat. It may also include abstaining from eating all by-products of animal slaughter.
<b>Kosher</b>	Foods that conform to the Jewish dietary regulations.
<b>Halal</b>	Arabic word that translates to "permissible" in English. In the Quran, the word halal is contrasted with haram.
<b>Haram</b>	Arabic term meaning 'forbidden'.

More info can be found here:

<https://www.foodafactoflife.org.uk/>

<https://www.bbc.co.uk/bitesize/guides/z7fw7p3/revision/2>

### Tasks

Consider your own household and create a mind map of the social and economic considerations that affect your food choice. Explain how different this might be to your grandparents at your age.

Explain why food provenance is important to some consumers. Include examples of UK food certification and assurance schemes.

**French**

**JE VAIS + PREPOSITION + PLACE + FREQUENCY ADVERB**

NEGATIVE					
Je I	ne don't	vais go	jamais never	chez to	Pierre <i>Pierre's house</i>
				à to	Bruxelles Toulouse
				au to the	centre comercial centre-ville ciné <i>shopping centre city centre cinema</i>
				à la to the	fête piscine <i>party swimming pool</i>
				à l' to the	église hôtel <i>church hotel</i>
			nulle part <i>nowhere</i>		

POSITIVE						
Je I	vais go	de temps en temps <i>from time to time</i> parfois <i>sometimes</i> rarement <i>rarely</i> souvent <i>often</i> toujours <i>always</i> (presque) tous les jours <i>(nearly) every day</i> (presque) tous les week-ends <i>(nearly) every weekend</i> une fois par mois <i>once a month</i> une fois par semaine <i>once a week</i>	chez to	Marie <i>Marie's house</i>		
			à to	Bruxelles Toulouse		
			au to the	collège gymnase parc stade supermarché <i>school gym park stadium supermarket</i>		
				restaurant	chinois indien italien <i>Chinese Indian Italian</i>	
				magasin de (...) shop	musique sport vêtements <i>music sport clothes</i>	
			à la to the	plage beach	tous every	les lundis les mardis les mercredis les jeudis les vendredis les samedis les dimanches <i>Monday Tuesday Wednesday Thursday Friday Saturday Sunday</i>

(SAYING WHERE I GO AND HOW OFTEN)





# POPULATION AND MIGRATION



## Key vocabulary

**Birth rate:** the number of babies born per 1000 of the population

**Death rate:** the number of deaths per 1000 of the population

**Fertility rate:** the number of babies, on average, women in a country have.

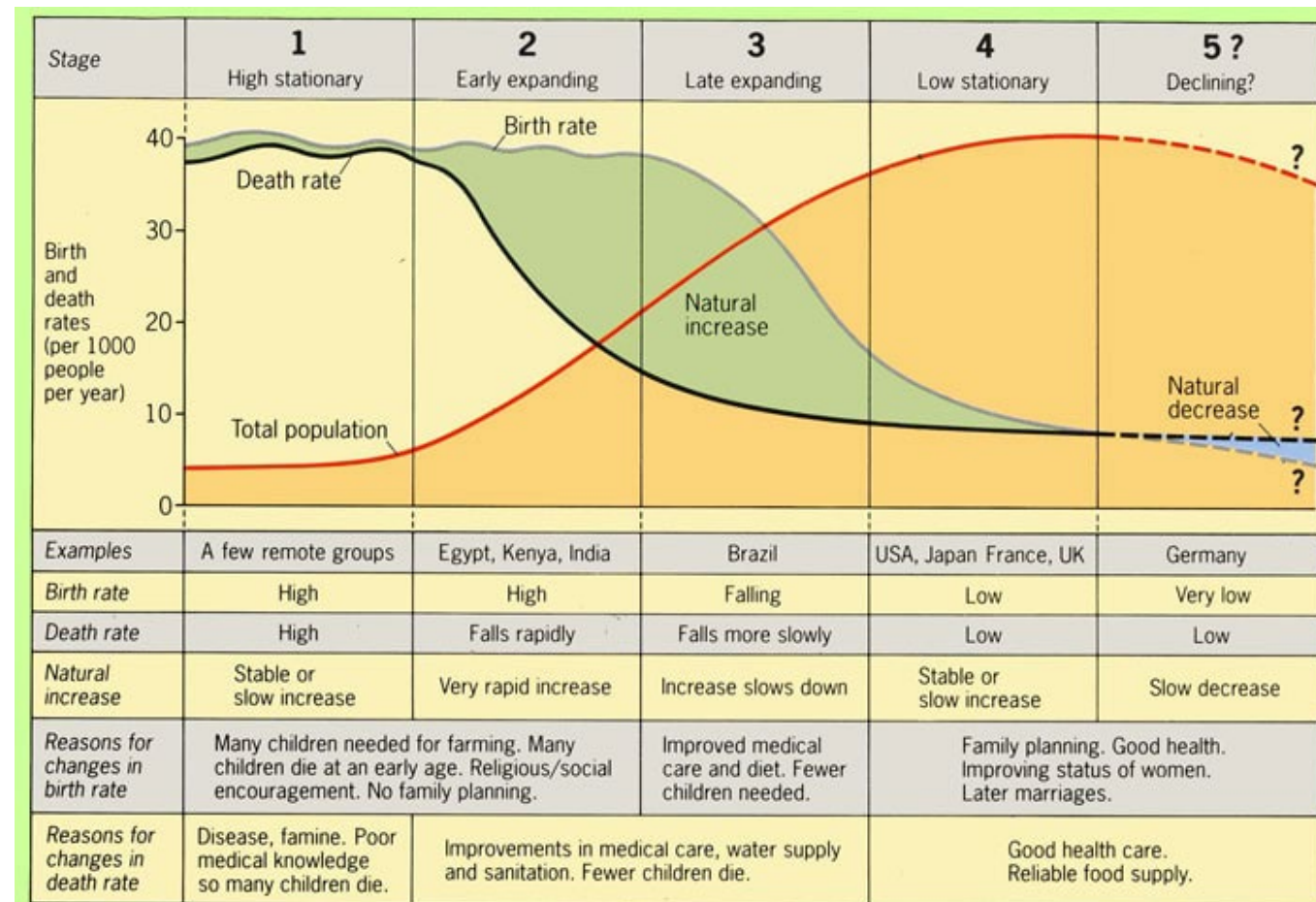
**Life expectancy:** the age to which people are expected to live.

**Natural increase:** the birthrate minus the death rate of a country. If birthrates are greater than deathrates then the country's population will increase

**The dependency ratio:** the proportion of people below and above working age. A low dependency ratiion means there are many people in work to support dependents (the elderly and very young)

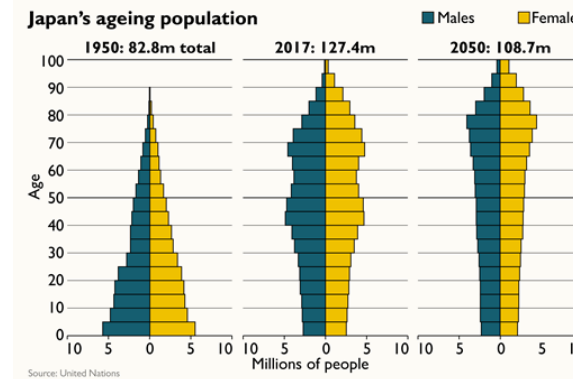
## The Demographic Transition Model

The DTM shows changes over time in the population of a country. It is based on the changes that took place in European countries such as the UK. It has 5 stages. The UK is currently in stage 4 and Japan is in Stage 5



## Japan's ageing population

### How has the population changed?



- In 1950 birthrates were higher giving the classic pyramid shape to the population pyramid graph
- By 2017 birthrates had fallen significantly, on average the fertility rate was 1.4 babies per woman
- Life expectancy has also increased significantly

### Why is the population changing?

#### Birth rates have fallen because:

1. The contraceptive pill became widely available in the 1960's allowing couples to control their fertility.
2. People are marrying and having children later, the average age of giving birth is now 30. This will lead to fewer births as fertility falls in women in their late 30's.
3. The status and role of women has changed, instead of giving up work after marriage women pursue careers.
4. Raising children is an expensive job, many families decide to only have one child due to the cost

#### People are living longer because:

1. Huge improvements have been made to health care during the 20<sup>th</sup> and 21<sup>st</sup> century
2. People enjoy a high standard of living in Japan
3. Diets are healthy
4. Housing quality is high
5. People have healthy lifestyles

### What are the consequences of ageing population and falling birthrates?

1. There is a shortage of people of working age. Businesses can struggle to fill job roles
2. The governments tax revenue is limited as a result
3. The pension bill is growing at an unsustainable rate
4. Japan is experiencing an epidemic of dementia
5. There has been a boom in the manufacture of good aimed at older people

### What is being done to manage the population?

1. The retirement age has been increased
2. People over 40 pay an additional tax which will be spent on their care as they age
3. Child benefit has been increased and people are encourage to have more time off work

# POPULATION AND MIGRATION



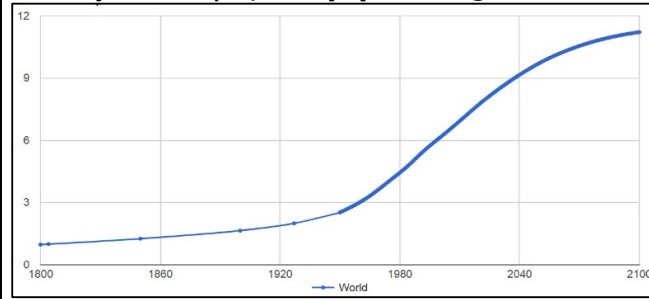
## POPULATION AND MIGRATION KNOWLEDGE ORGANISER



### Population Overview

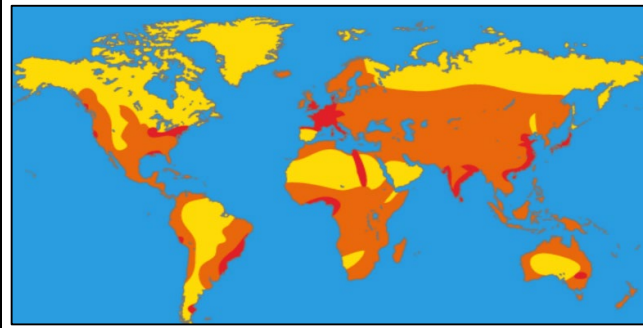
**Population** means the people living in a particular area. The study of human populations is called **demography**.

The **world population** is growing rapidly. The graph below shows population growth over the past 200 years and projected **population growth**.

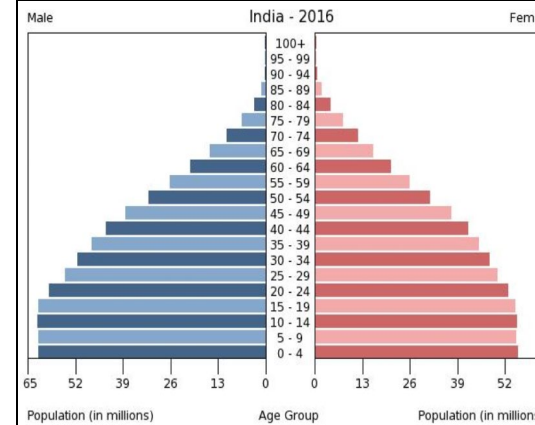


**Population density** is the measure of the amount of people living per a given amount of space (e.g. per metre, mile or kilometre).

The image shows the population density of the world. **Densely populated, moderately populated sparsely populated,**

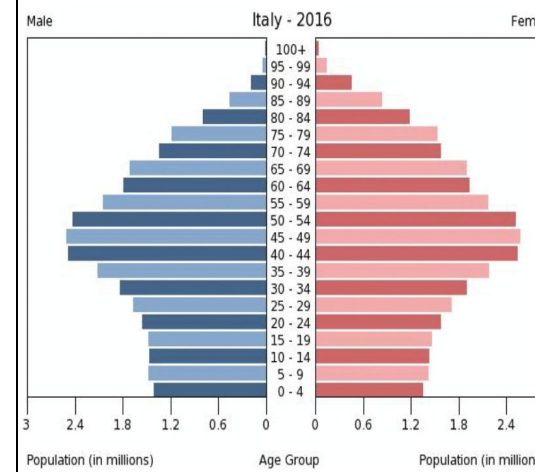


### Population Structures



**Young/Emerging Populations**  
The diagram on the left is the population pyramid for India. It is similar to many emerging countries across the world, in that there are lots of people under the age of 20, but relatively few people over the age of 60. Old people do not live as long as in some countries (poverty levels and healthcare are influences) and lots of babies are being born (access to contraception is one reason for this). It means that the population is growing. Populations rise when the fertility rate is 2.1 or higher – in India it is 2.4.

- Countries in this category include:**
- Malawi
  - Oman
  - Lebanon
  - Kuwait
  - Qatar
  - South Sudan
  - Niger
  - Burundi
  - Chad
  - Iraq
  - Angola
  - Uganda
  - Gambia
  - Tanzania
  - Senegal
  - Jordan



**Ageing/ Declining Populations**  
The diagram on the left is the population pyramid for Italy. It is similar to many countries in developed western Europe, in that there are relatively few people under the age of 20, and a relatively high number of people over 60. This is because older people are living longer (advances in healthcare) and fewer babies are being born. Populations fall when the average fertility rate is less than 2.1 – in Italy the rate is currently around 1.4. In many of the countries on the right, more people are emigrating than immigrating.

- Countries in this category include:**
- Japan
  - Portugal
  - Greece
  - Finland
  - Bulgaria
  - Sweden
  - Latvia
  - Croatia
  - France
  - Denmark
  - Estonia
  - Lithuania
  - Bosnia

### Migration

#### What is Migration?

Migration is the movement of people from one locality or country to another. Migration may be temporary or permanent, and voluntary or forced. Immigration is when people move from other places into a place, in order to settle – such migrants are called immigrants. Emigration is when people move out of their country to new places – these people are called emigrants. Migration is not a new phenomenon - evidence of peoples migrating goes back to ancient human history. It is estimated that around 250 million people worldwide live outside their country of birth.



#### Temporary Migration

A temporary migrant normally enters a country for a fixed time period, ordinarily for work purposes. In the UAE, for example, many expatriates go to work for a tax-free salary on a fixed-term contract, before returning home. For this reason, a large percentage of the population are men aged between 25 and 45.



#### Permanent Migration

Permanent migration occurs when someone moves to another country with the intention of making the new country/ location their home. For example, in 1948, 842 immigrants sailed from Jamaica to London on the Empire Windrush, in the hope of starting a new life in the United Kingdom. Most never returned to Jamaica.



#### Voluntary Migration

Often, people move to other countries voluntarily, often in search of living a better life. As more countries have joined the European Union, many workers from poorer nations have utilised their right to move freely to other countries in the EU. Lots of Polish and Hungarian workers, for example, have moved to the UK.



#### Forced Migration

Forced migration can result from a range of circumstances – usually sudden and dangerous events such as war or famine. One example is the recent Syrian crisis, in which more than 50% of Syria's population has become displaced. Lots of countries, for example Lebanon, Turkey and Jordan received the migrants.



### Most Populated Countries

1. China – approx. 1.39 billion people.
2. India – approx. 1.31 billion people.
3. USA – approx. 334 million people.
4. Indonesia – approx. 265 million people.
5. Brazil – approx. 221 million people.
6. Pakistan – approx. 211 million people.
7. Nigeria – approx. 203 million people.

### Population of the Continents

1. Asia – approx. 4.43 billion people.
2. Africa – approx. 1.21 billion people.
3. Europe – approx. 738 million people.
4. N. America – approx. 579 million people.
5. S. America – approx. 422 million people.
6. Oceania – approx. 38.3 million people.
7. Antarctica – approx. 1,106 people.

### Population Growth – The UK



### Population Growth – The USA





### TIMELINE: What was impact of WW1?

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

11<sup>th</sup> November 1918 – Armistice Day – WW1 officially ended

February 1918 – Representation of the People Act – 8.5 million women now allowed to vote (married / 30 / householders)

1918 – Education Act – School until 14. Special Educational Needs recognised. Also “Homes For Heroes” – 200,000 new council houses built which can be rented from councils

1919 – Ministry of Health – Set up in Britain to improve healthcare

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

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

1925 – Old Age Pensions increased.

4<sup>th</sup> – 12<sup>th</sup> 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.

1928 – All women in Britain over the age of 21 were allowed to vote.

October 1929 – Wall Street Crash – shares plummet and world plunged into global economic decline – ‘The Great Depression’.

Challenge yourself to learn more about WW1 here:

<https://www.bbc.co.uk/bitesize/topics/zqhyb9q/articles/znhrj6>

### IMPACT OF THE TREATY OF VERSAILLES

#### GERMAN LAND

1. Overseas colonies to GB & FR
2. Lost land to Poland, Denmark, France, Belgium & GB
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

8. Promised to ignore restrictions and repayments demanded in the Treaty of Versailles
9. Blamed Jews for defeat in WW1
10. Wanted “Greater Germany” of German speakers (including Austria, Czechoslovakia and Poland)
11. Lebensraum – “Living Space” in Russia for Germans
12. Imprison Communists and provide work for all
13. Military uniforms, marches, banners and salute

#### Hitler elected as Chancellor – January 1933

14. Hitler becomes “Führer” – leader
  - 1935 National Labour Service = jobs and rebuild
15. Kinder, Kirche, Küche (Children, Church and Cooking) is aim for women
16. Discrimination against disabled, Jewish and Scinti Roma (Gypsies) groups – arrest and forced labour
17. Propaganda and total control of media, literature theatre and culture to spread Nazi ideas.
18. 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

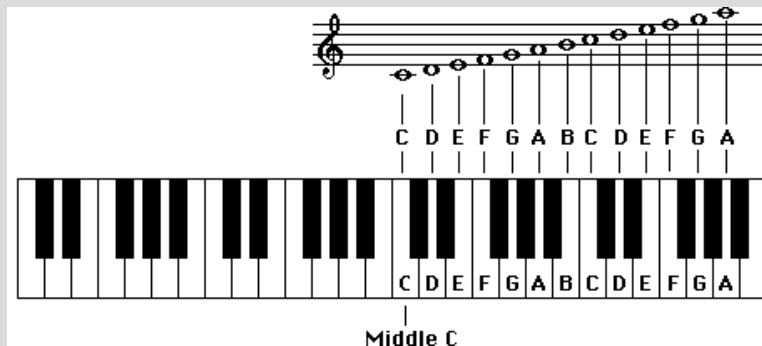
Music for the stage or musical theatre is a form of theatrical performance that combines songs, spoken dialogue, acting and dance. The story and emotional content of a musical – humour, love, anger – are communicated through words, music, movement and technical aspects of the entertainment as an integrated whole.

### Key Features:

Musicals set out to **entertain** through a combination of:

- Catchy music in a popular style
- Solo songs, duets, choruses and ensembles
- Orchestra or band accompaniment
- Spoken dialogue
- Dance sequences, stage spectacles and magnificent costumes
- These are all held together by the **plot**.

### Diagrams:



## Music for the Stage

### Key vocab

Word	Definition
<b>Musical</b>	A form of theatre that combines song, spoken dialogue, acting and dancing
<b>Orchestra</b>	A large ensemble split in to four families: strings, woodwind, brass and percussion
<b>Solo</b>	Someone performing on their own
<b>Duet</b>	Two people performing together
<b>Trio</b>	Three people performing together
<b>Ensemble</b>	A group of musicians
<b>Hook</b>	A repeated catchy phrase in a song, often the title of the song
<b>Tonality</b>	The tone of the music: major (happy) or minor (sad)
<b>Tempo</b>	The speed of the music
<b>SATB</b>	The four main voice types: soprano (high female), alto (low female), tenor (high male) and bass (low male)

More info can be found here: [Listening](#)

Listen to some of these well known musicals:



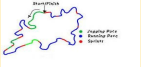






Wicked	Grease	Les Miserables	
Billy Elliot	Hamilton	Phantom of the Opera	
Matilda	Cats	We Will Rock You	Mamma Mia



**Subject** Physical Education

**Topic** THEORY ME

**Key content**

<b>Continuous Training</b>		<b>Aerobic activities (running, biking, swimming and rowing.), performing repetitive movements over a prolonged period of time</b>
<b>Interval Training</b>		<b>Periods of workouts interspersed with periods of rest.</b>
<b>Fartlek Training</b>		<b>Varying speed and or type of terrain.</b>
<b>Plyometric Training</b>		<b>High intensity exercise involving explosive movements</b>
<b>Circuit Training</b>		<b>Complete several exercises in a circuit (usually five to 10) targeting different muscle groups with minimal rest in between. E.g. Press ups, planks, sit ups</b>
<b>Agility Training</b>		<b>Drills used to practice changing direction at speed.</b>
<b>Flexibility Training</b>		<b>Stretching exercises to lengthen the muscles and may include activities like yoga.</b>
<b>Balance Training</b>		<b>Involves doing exercises that strengthen the muscles that help keep you upright, including your legs and core. These kinds of exercises can improve stability.</b>
<b>Resistance Training</b>		<b>Using a resistance such as your body weight or free weights to improve your fitness.</b>

**2. THEORY ME**

<b>1. COMPONENTS OF FITNESS</b> Comprehensively describe the fitness components and know how to test each.	50%<	51 – 69%	70% +
<b>2. Tier 3 Vocabulary</b> Comprehensively describe aerobic and anaerobic exercise. As well as understanding the difference between maximal and submaximal tests.		GEM Activity will consist of a TEST	
<b>3. TRAINING METHODS</b> Understand how to improve fitness components through the appropriate training methods.			

**Skill-related components**

**Key Words**

	<b>Definition</b>	<b>Example</b>
<b>Agility</b>	The ability to change the position of the body quickly and control the movement	A badminton player moving around the court from back to front and side to side at high speed and efficiency
<b>Balance</b>	The ability to maintain the body's centre of mass above the base of support	A sprinter holds a perfectly still sprint start position and is ready to go into action as soon as the gun sounds
<b>Coordination</b>	The ability to use two or more body parts together	A trampolinist timing their arm and leg movements to perform the perfect tuck somersault
<b>Power</b>	The ability to perform strength performances quickly	A javelin thrower applies great force to the spear while moving their arm rapidly forward
<b>Reaction time</b>	The time taken to respond to a stimulus	A boxer perceives a punch from their left and rapidly moves their head to avoid being struck
<b>Speed</b>	The ability to put body parts into motion quickly	A tennis player moving forward from the baseline quickly to reach a drop shot close to the net

**Health-related components**

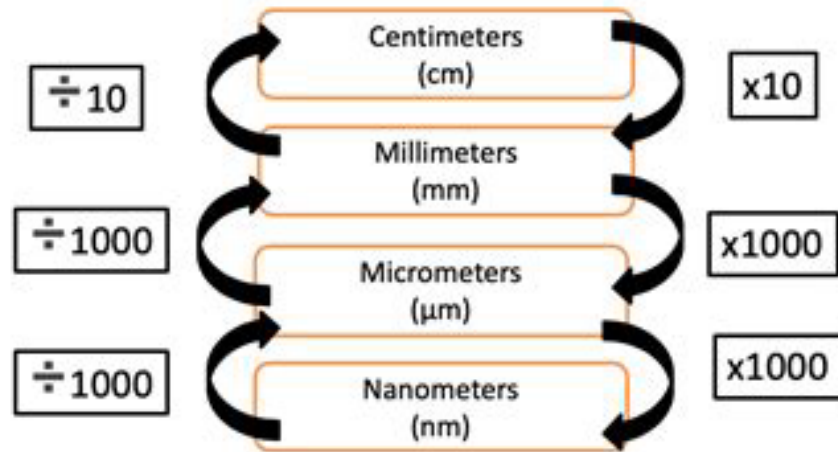
	<b>Definition</b>	<b>Example</b>
<b>Body composition</b>	The percentage of body weight which is fat, muscle and bone	The gymnast has a lean body composition to allow them to propel themselves through the air when performing on the asymmetrical bars
<b>Cardiovascular fitness</b>	The ability of the heart, lungs and blood to transport oxygen	Completing a half marathon with consistent split times across all parts of the run
<b>Flexibility</b>	The range of motion (ROM) at a joint	A gymnast training to increase hip mobility to improve the quality of their split leap on the beam
<b>Muscular endurance</b>	The ability to use voluntary muscles repeatedly without tiring	A rower repeatedly pulling their oar against the water to propel the boat towards the line
<b>Strength</b>	The amount of force a muscle can exert against a resistance	Pushing with all one's force in a rugby scrum against the resistance of the opposition pack

**Key content**

Use of a microscope is called microscopy. Microscopes allowed scientists to discover cells and sub-cellular structures (like mitochondria). Cells and their internal structures are very small, therefore, it is not useful to measure them in metres (m). Instead we use the following smaller units:

- Centimetres (cm): 100cm = 1m
- Millimetre (mm): 10mm = 1cm
- Micrometre (µm): 1000µm = 1mm
- Nanometre (nm): 1000nm = 1µm

The image below can be used to convert between units.



Key Terms	Definitions
Multicellular	This describes an organism that is made of lots of cells – such as animals or plants.
Specialised Cell	Almost all cells in multicellular organisms have a particular job, or function.
Tissue	A group of cells with similar structures and functions – i.e. a group of specialised cells.
Organ	An organ is a collection (or aggregation) of tissues performing a specific function.
Organ System	Organs don't operate alone: they work together to form organ systems.
Organism (again)	An organism has many organ systems, all contributing to its survival.
Light microscope	A usual school microscope is a light microscope. You can see large sub-cellular structures like a nucleus with it, but not a lot more detail than that.
Magnification	This is the measure of how much a microscope can enlarge the object you are viewing through it.
Resolution	This is the measure of the level of detail you can see with a microscope.
Electron microscope	A type of microscope with much high magnification and resolution than a light microscope. Essential for discovering the smaller sub-cellular structures.

Equation	Meanings of terms in equation
$\text{magnification} = \frac{\text{size of image}}{\text{size of real object}}$	<p>The image is how it looks through the microscope. The real object is what you are looking at. The image and object must be measured with the same unit, e.g. both in µm or nm.</p>



## Subject

## Topic

### Key content

There are many stores of energy

- magnetic
- internal (thermal)
- chemical
- kinetic
- electrostatic
- elastic potential
- gravitational potential
- nuclear

$$E_k = \frac{1}{2} m v^2 \quad E_e = \frac{1}{2} k e^2$$

$$E_p = m g h \quad W = F \times d$$

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

$$efficiency = \frac{\text{useful energy transferred}}{\text{total energy supplied}}$$

$$efficiency = \frac{\text{useful power transferred}}{\text{total power supplied}}$$

### Diagrams:

four types of energy transfer:

- mechanical work - a force moving an object through a distance
- electrical work - charges moving due to a potential difference **i**
- heating - due to temperature difference caused electrically or by chemical reaction
- radiation - energy transferred as a wave, eg light and infrared - light radiation and infrared radiation are emitted **i** from the sun

### Key vocab

Word	Definition
Energy	The capacity to do work
Law of Conservation	Energy can never be created or destroyed, only transferred
Efficiency	The percentage of energy or power transferred usefully
Thermal insulator	A material with a low thermal conductivity
Thermal conductor	A material with a high thermal conductivity
Renewable	An energy resource that can be replenished faster than it is used
Non-renewable	An energy resource that is used faster than it is replenished
Work	The amount of energy transferred to an object

More info can be found here:

<https://www.bbc.co.uk/bitesize/examspecs/zsc9rdm>



**LAST PAGE**