



# Year 8 Knowledge Book

Spring Term



**Wonder**  
Learning Partnership  
Educate | Empower | Engage | Enrich



**GCSE EXAMINATIONS**

Final piece produced under exam conditions (10 hours)  
Component 2

**Externally Set Assignment (40% of GCSE)**

Artist research and critical analysis.

Work produced in the style of the artists

Planning for the final piece

Final assessment of component 1 (coursework)

Collection of resources - using both primary and secondary sources

Recording - drawings and paintings produced based on the resources collected earlier.

Sampling and mock-up for the final piece

Coursework re-visited and improved/developed further

**YEAR 11**

Digital manipulation work and experimental work

Recording - drawings and paintings produced based on the resources collected earlier.

Work produced in the style of the artists 2

Mock-up for final piece

Developed planning for final piece

**Personal Choice Project**

**Personal Choice Project - introduction**

Planning a final piece

Researching artists and analysing their work

**Packaging Project (Whitehead and Graham)**

**YEAR 10**

Artist research and critical analysis. This enables a greater understanding of the work of others and embeds links between their work and that of the pupil.

Collection of resources - using both primary and secondary sources

A personal selection is made for a project that will be sustained for more than 20 weeks.

Creating a final piece and a review

Work in the style of the artists

A short project (2/2) to develop confidence and understanding of the basic structure of an art project

Mastering a variety of drawing materials, techniques and processes looking at colour and tone.

Development work 2. Mastering several texture and 3D techniques such as card relief and clay modelling.

A short project (1/2) to develop confidence and understanding of the basic structure of an art project

Work in the style of the artists

Creating a Landscape final piece and a review

Mastering a variety of drawing materials, techniques and processes looking at B/W and tone

Exploring photography as a method of recording natural forms (Blincoe).

Development work 1. Mastering several printing techniques such as mono, press, emulsion and screen.

**Landscape Project (Dodge and Mullan)**

Researching artists and analysing their work

Planning a Landscape final piece

Exploring photography as a method of recording natural forms (Blossfeldt).

Re-visiting skills to improve confidence and independence

Combining text and images to create surreal portrait.

Mastering the grid technique for drawing portraits

**Portraits (Contemporary - Loui Jover and Barbara Kruger)**

**YEAR 9**

Developing mono-printing skills

Andy Warhol-style "Toy" print

Mastering selective layering technique

**Seed heads (Angie Lewin, Blaxill)**

Close-up studies of seedheads

Lichtenstein-style "sound burst" painting

Developing oil pastel skills

Jasper Johns-style layered "Numbers" piece using mixed media

Mastering all previous skills (layers, mixed-media, typography)

Exploring observation drawing. Mastering surface texture.

Exploring layered composition and pattern using mixed-media and/or clay

Developing existing colour mixing and painting skills

Exploring the work of others and making connections through understanding

**African Pattern (contemporary)**

Watercolour fish painting

Mastering colour theory and colour mixing

**Fish Painting (Aleah Koury, MC Escher)**

Developing compositional layering skills

Exploring fonts, typography and onomatopoeia

**Pop Art (Roy Lichtenstein, Andy Warhol, Jasper Johns)**

Mastering independent design - tessalations

Mastering planning and independent composition-making

Exploring watercolour painting techniques

Mastering aerial perspective

Exploring stacking and overlapping shapes

Exploring complex compositions

Mastering biro cross-hatching techniques

**Perspective (Van Gogh, LS Lowry)**

Exploring 3D shapes with one point perspective.

Shading, blending and plotting shadows

Exploring reflections and distortions on bottles and glasses (Morandi)

Exploring surface texture and tone on more complex objects (tools) (J Dine)

Mastering the illusion of depth

Exploring 3D lettering with one point and two point perspective.

Baseline Test to establish skills

**YEAR 7**

Exploring 3D shapes and form. Mastering pencil shading

**Still Life (B Hepworth, G Morandi, J Dine)**

**ART**



LINE

TO NE

SHAPE & FORM

COLOUR

TEXTURE

PATTERN

**Susannah Blaxill**

internationally recognised as a leading artist specialising in watercolour, pencil and charcoal drawings of botanical art. Her most famous work is a beetroot featured in multiple media around the world.

**What is Hyperrealism?**

**Key Words**

**Botanical art**  
to depict whole plants or parts of plants in a manner that is both aesthetically pleasing and scientifically accurate

**Botanical illustration**  
the accurate pictorial depiction of plants and plant traits for a scientific purpose

**Blend**  
Mix or combine colours or tone.

**Charcoal**  
A black carbon stick used to draw with obtained by burning wood

**Close-up**  
an intimate and detailed study (zoomed in)

**Cross-Hatching**  
Shading with intersecting sets of parallel lines

**Tone**  
The lightness or darkness of something. Tone or shading can help 2D shapes look 3D creating form.

**Monochrome**  
means one colour

**Grid drawing**  
invented by Albrecht Durer in 1525 used for used for accurate scaling when drawing small to large

**Zoomed in**  
Close up section of a picture or drawing



What do you think about the colour flower on black background?



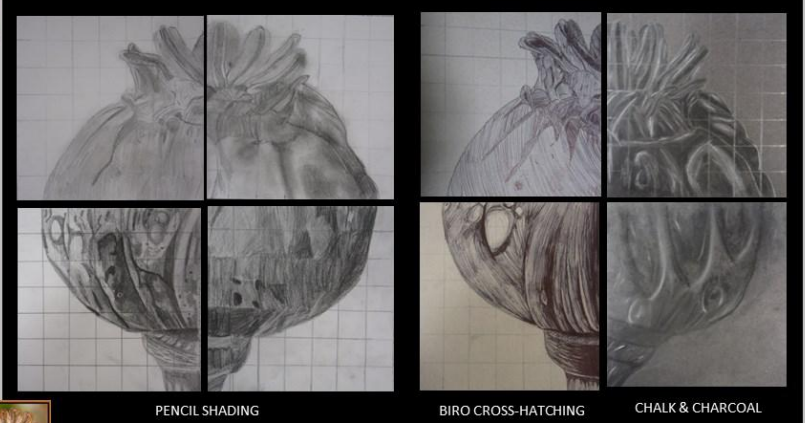
What do you think about the incomplete cabbage drawing?



**SUSANNAH BLAXILL (1954-)**  
BRITISH-AUSTRALIAN BOTANICAL ARTIST  
POPPY SEED HEAD IN CHARCOAL



**ALBRECHT DURER (1471-1528)**  
GERMAN RENAISSANCE PAINTER  
PEONIES (1500)



PENCIL SHADING

BIRO CROSS-HATCHING

CHALK & CHARCOAL

Challenge Questions: Why is it important to look at a variety of artists' work? Why do you think artists zoom in on sections rather than looking at the whole? Which do you think is better, working on white or black background? Why do you think some artists leave work incomplete?

LINE

TO NE

SHAPE & FORM

COLOUR

TEXTURE

PATTERN

**Angie Lewin**

British printmaker working in linocut, wood engraving, lithography and screen printing. Inspired by the hilltops and saltmarshes of the North Norfolk coast, and the Scottish Highlands.

**What is Printmaking?**

**Key Words**

**Collage**  
Creating art from pieces of paper, photographs and fabrics.

**Composition**  
in landscapes is how the scene is framed and how the eye of the observer through the image and emphasizes the focal point.

**Foreground**  
The part of a view that is nearest the observer – front.

**Background**  
The part of a view that is furthest away from the observer – back.

**Stylised**  
art appears similar to the natural state while also looking more dramatic or abstract.

**Ceramics**  
clay objects (vases, tiles etc) made permanent by heat

**Slab Building**  
a method of making pottery in which a thick, flat plate, or slice of clay is cut into shapes which are joined to form an object.

**Leather hard**  
refers to the stage where the clay is partially dried

**Bisque**  
any pottery that has been fired (made permanent) in a kiln without a ceramic glaze

**Kiln**  
a special kind of oven for firing things like pottery and bricks

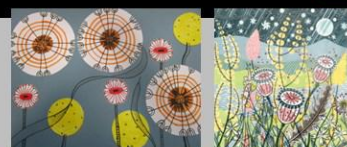
**ANGIE LEWIN (1963-)**  
BRITISH PRINTMAKER  
CLIFTOP III



**VINCENT VAN GOGH (1853-1890)**  
DUTCH POST-IMPRESSIONIST ARTIST  
IRIS (1889)



**CHARLOTTE HUPFIELD (1963-)**  
BRITISH CERAMICIST  
PURPLE LARKSPUR FLOWERS



Challenge Questions: Why is it important to look at a variety of artists' work? What do you think of the stylised colourful work? Do you think the work would be better if it was more detailed?

# BOTANICAL ARTIST TIMELINE

**16<sup>TH</sup> CENTURY**

**ALBRECHT DÜRER (1471-1528)**  
GERMAN RENAISSANCE PAINTER  
PEONIES (1508)

**18<sup>TH</sup> CENTURY**

**EGZANTER BLAKOWITZ (1707-1798)**  
POLISH ANATOMIST, SCIENTIST AND ARTIST  
PEACH (1766)

**GEORGE DONYUS EBERT (1708-1798)**  
GERMAN BOTANICAL ARTIST  
A VANILLA SPECIES (1777)

**STREYT PARANON (1741-1791)**  
AUSTRIAN BOTANICAL ARTIST  
BANGALIA INTERMEDIATA (1776)

**17<sup>TH</sup> CENTURY**

**MARIA SIBILLA MERIAN (1647-1717)**  
DUTCH SCIENTIST AND ILLUSTRATOR  
WHITE CUCURBIT (1685)

**19<sup>TH</sup> CENTURY**

**ERNEST HAECKEL (1834-1919)**  
GERMAN ZOOLOGIST, EVOLUTIONIST AND ARTIST  
SUNFLOWER (1866)

**PIERRE-JOSEPH REDOUTE (1759-1840)**  
BELGIAN BOTANICAL ARTIST AND ROYAL FLOWER PAINTER  
CROWN IMPERIAL (1827)

**MARSHALLA SPRENGEL (1816-1896)**  
VICTORIAN PLANT HISTORIAN AND BOTANICAL PAINTER  
EYE-BRIGHT (1870)

**20<sup>TH</sup> CENTURY**

**GEORGIA O'KEEFE (1887-1986)**  
AMERICAN MODERNISM AND BOTANICAL ARTIST  
WHITE BIRD OF PARADISE (1939)

**VINCENT VAN GOGH (1853-1890)**  
DUTCH POST-IMPRESSIONIST PAINTER  
IRIS (1889)

**GUSTAV KLIMT (1862-1918)**  
AUSTRIAN SYMBOLISM ARTIST  
FLOWER GARDEN (1905-7)

**CLAUDE MONET (1840-1926)**  
FRENCH IMPRESSIONIST PAINTER  
IRIS MAUVE (1914)

**21<sup>ST</sup> CENTURY**

**SUSANNA BLAKILL (1954-)**  
AUSTRALIAN BOTANICAL ARTIST  
PEONY 'CORAL CHARM' (2022)

**EMILY WINKOE (1880-)**  
AMERICAN PHOTOGRAPHER  
FLOWER ARRANGEMENTS (UNKNOWN)

**ELIZABETH BLACKADDER (1931-2021)**  
SCOTTISH BOTANICAL PAINTER  
TULIPS (UNKNOWN)

**KIRSTEN LOURSENHOFF (UNKNOWN)**  
TEXTILES ARTIST  
GARDEN ESCAPE (2021)

**ANGIE LEWIS (1963-)**  
ARTIST AND PRINTMAKER  
MACHAIR (2022)

**20<sup>TH</sup> CENTURY**

**ROY MCENEMY (1932-1982)**  
BRITISH MUSICIAN AND BOTANICAL ARTIST  
FRITILLARIA 'WELLAGROS' (1981)

**PANDORA SELLARS (1936-2017)**  
ENGLISH BOTANICAL ARTIST  
BLUE WATER LILY NYMPHAEA NOUCHALI VAR. CAERULEA (1995)

**JOHN BLAKEMORE (1936-)**  
BRITISH STILL LIFE AND LANDSCAPE PHOTOGRAPHER  
THE STILL GAZE (UNKNOWN)

**ARTHUR HARRY CHURCH (1865-1937)**  
ENGLISH BOTANIST AND BOTANICAL ARTIST  
BLUE WATER LILY NYMPHAEA NOUCHALI VAR. CAERULEA (1995)

**MARGARET MEE (1909-1988)**  
ENGLISH BOTANICAL ARTIST  
HELICONIA (1964)

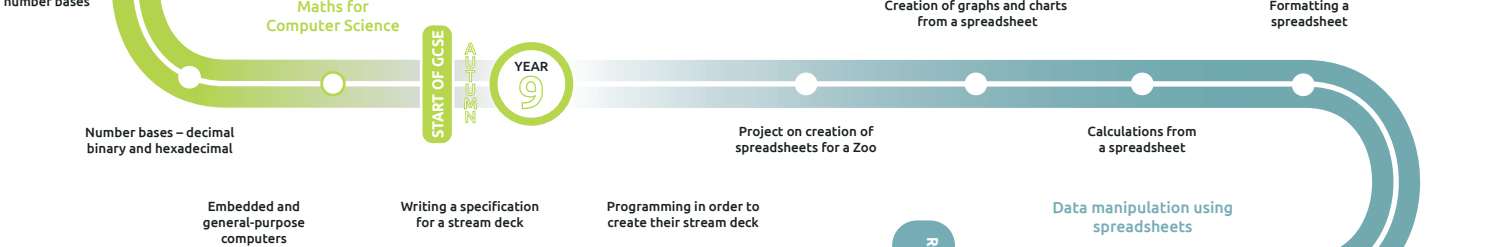
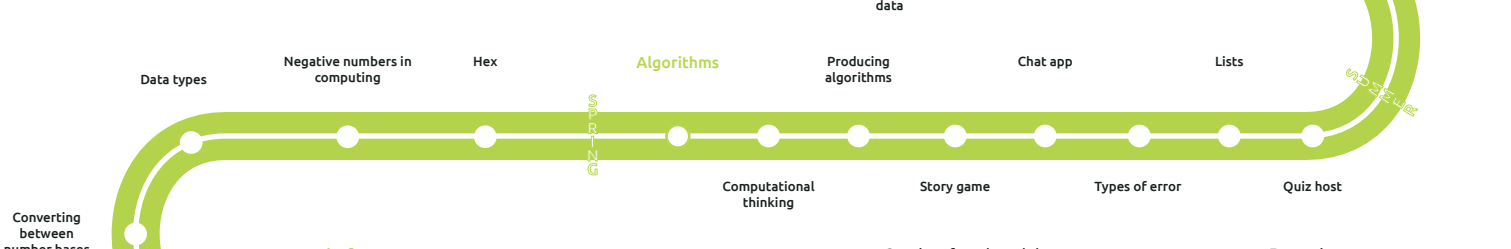
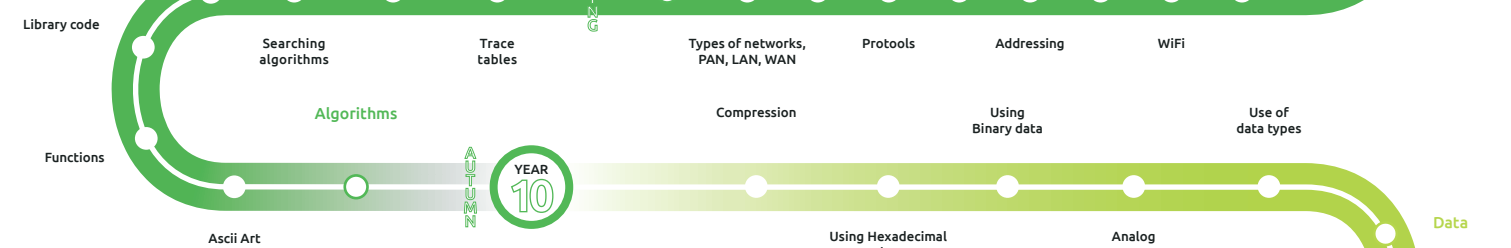
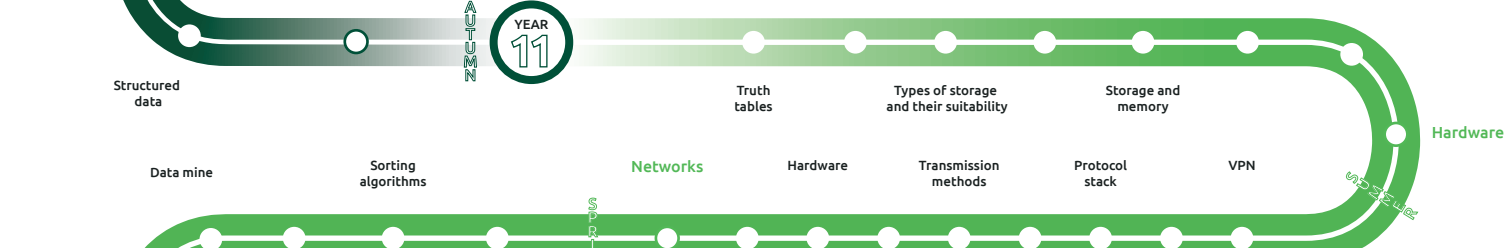
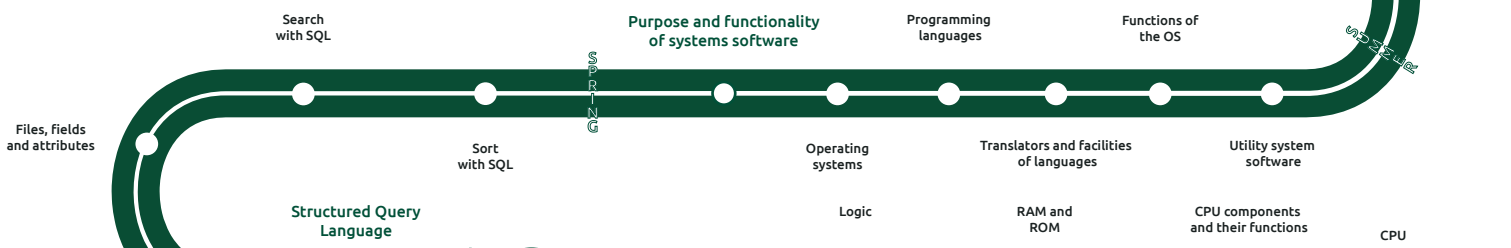
**EDWARD BAWDEN (1903-1989)**  
ARTIST AND PAINTER  
AUTUMN PRINT (1950)



**GCSE EXAMINATIONS**

2 GCSE Exam Papers

Revision



**COMPUTING**



ROTATION 1  
COMPUTING

ROTATION 2  
ICT

ROTATION 2  
ICT

ROTATION 1  
COMPUTING

START OF GCSE

YEAR 11

YEAR 10

YEAR 9

YEAR 8

YEAR 7

KEY VOCABULARY	
Python	A <b>programming language</b> that can be used to write code in order to develop applications.
Programming Language	A language that is made up of a set of instructions used to tell a computer to perform specific tasks.
Syntax	The rules of the language which must be followed. How instructions must be written in programming.
Program Input	Data that is supplied to a computer program and then processed.
Program Output	Data or information that is given out by a program.
Integer	A whole number e.g. '27'
Float / Real	A decimal number e.g. '27.9'
Character	A single letter, number or symbol e.g. '&'
String	Text made up of more than one character e.g. 'Hello'
Boolean	A data type that can only have one of two values - true or false.
Sequence	Instructions that are run in the order that they are written, one after the other.
Selection	Instructions that are only run if a condition is met.
Iteration (Repetition)	Instructions that are repeated a set number of times or while a condition is met.
Variable	A name given to a memory location used to store data.



```
temperature = int(input("Please enter the temperature"))

if temperature >= 30:
    print("Heatwave!")

elif temperature >= 15:
    print("Hot day!")

else:
    print("Cold day!")
```

Interact with the user (*input and output*)

Print a message

Print multiple values (of different types)

Asking the user for a string

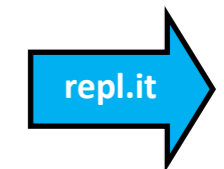
Asking the user for a whole number (an integer)

Text ( <i>strings</i> )	Variables
Single quoted <input type="text" value="'perfect'"/>	Creating a variable <input type="text" value="celsius = 25"/>
Double quoted <input "="" type="text" value='"credit'/>	Using a variable <input type="text" value="celsius*9/5 + 32"/>
Multi-line <input type="text" value="'''Hello,\nWorld!'''"/>	
Add ( <i>concatenate</i> ) strings <input type="text" value="'Hello' + 'World'"/>	Whole numbers ( <i>integers</i> )
Multiply string by integer <input type="text" value="'Echo...'*4"/>	Addition and subtraction <input type="text" value="365 + 1 - 2"/>
Length of a string <input type="text" value="len('Hello')"/>	Multiplication and division <input type="text" value="25*9/5 + 32"/>
Convert string to integer <input type="text" value="int('365')"/>	Powers ( <i>2 to the power of 8</i> ) <input type="text" value="2**8"/>
	Convert integer to string <input type="text" value="str(365)"/>

Decide between options

Decide to run a block (or not) <input type="text" value="x = 3\nif x == 3:\n    print('x is 3')"/>	Are two values equal? <input type="text" value="x == 3"/>
Decide between two blocks <input type="text" value="mark = 80\nif mark &gt;= 50:\n    print('pass')\nelse:\n    print('fail')"/>	Are two values not equal? <input type="text" value="x != 3"/>
Decide between many blocks <input type="text" value="mark = 80\nif mark &gt;= 65:\n    print('credit')\nelif mark &gt;= 50:\n    print('pass')\nelse:\n    print('fail')"/>	Less than another? <input type="text" value="x &lt; 3"/>
	Greater than another? <input type="text" value="x &gt; 3"/>
	Less than or equal to? <input type="text" value="x &lt;= 3"/>
	Greater than or equal to? <input type="text" value="x &gt;= 3"/>
<ul style="list-style-type: none"> <li>elif can be used without else</li> <li>elif can be used many times</li> </ul>	The answer is a <i>Boolean</i> : <input type="text" value="True"/> or <input type="text" value="False"/>

Key Objectives	
Identify the 5 data types used in programming.	
Write a program in Python using input and output commands.	
Write a program in Python using an IF statement.	
Write a program in Python using an IF ... ELSE statement.	
Be able to debug syntax errors in basic Python programs.	



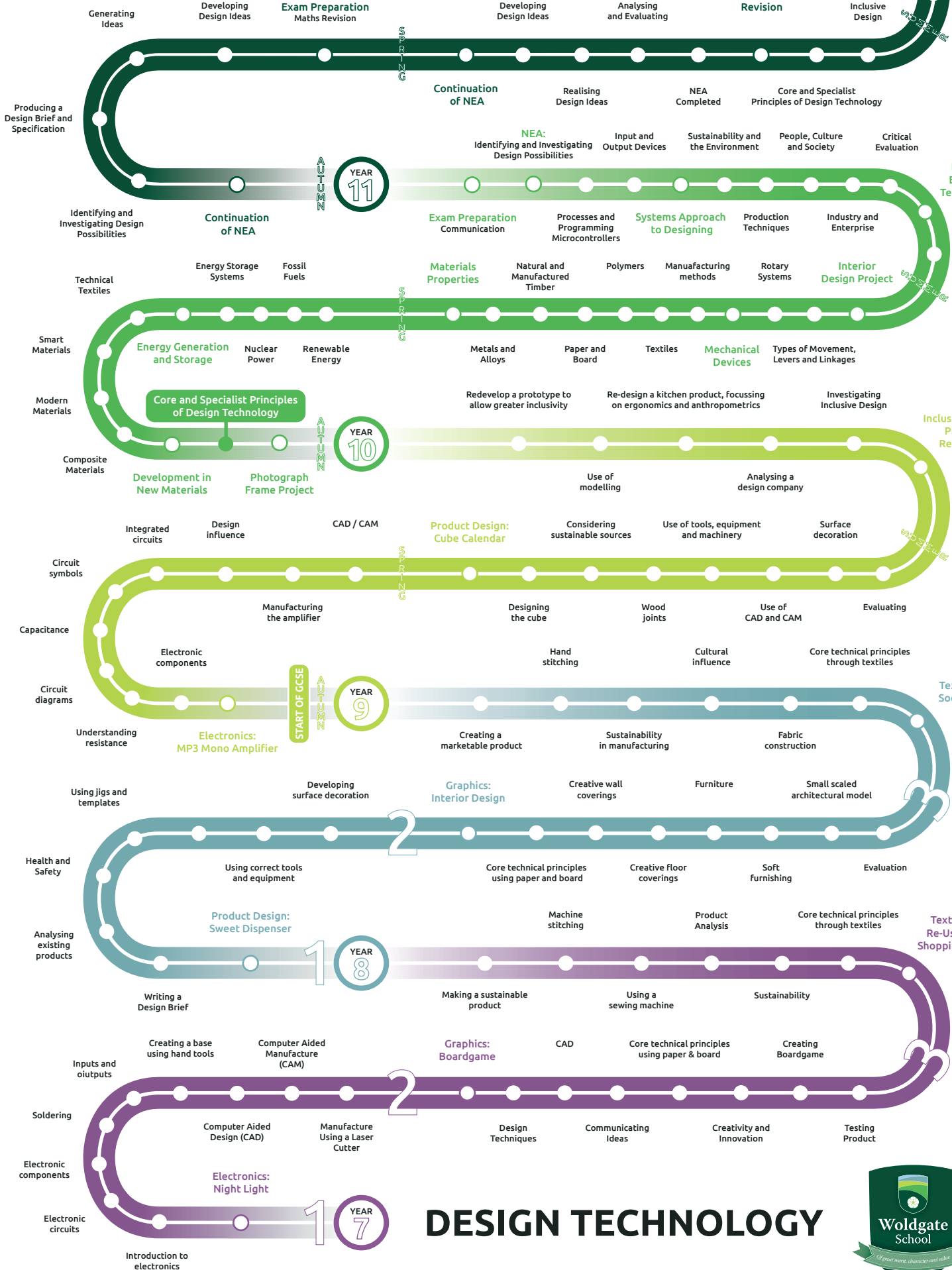


# GCSE EXAMINATIONS

1 Written Paper

Maths Revision

Manufacturing in Industry



# DESIGN TECHNOLOGY

### Cultural reference The Singh twins.

The Singh Twins are two contemporary female artists from Liverpool. They are twin sisters who create their highly detailed artworks together and have exhibited their pieces around the world. The Singh Twins are famed for their intricate, brightly coloured artwork which combine traditions from both Eastern and Western art.

### Practical skill

Identifying fabric constructions.

Using scissors & pins safely & accurately.

Hand sewing techniques to join & decorate fabrics, running stitch & back stitch.

Creating a paper template to enable efficient & accurate cutting and stitching.

### Fabric construction methods

The way in which fabrics are made.

Woven Knitted Non-woven

### Literacy -Key word spellings & definitions

**Embroidery** - decorative stitching

**Needle** - tool used to stitch.

**Pin** - (noun) tool used to hold fabrics together.

**Properties** - how a material will perform and react.

**Stitch**- (verb) The act of sewing. to sew two things, usually fabric, together using thread.

**Stitch**- (noun) a loop of thread or yarn resulting from a single pass or movement of the needle in sewing & knitting.

**Stitches** -plural of stitch

**Stretch** -to cause something to reach in a particular direction.

**Scissors** -tool used to cut fabrics.

**Sequin** - component used in decorative stitching.

**Template** a form or pattern used as a guide to make something.

**Thread** (Noun) a length of twisted fibres, usually used for stitching

**Thread** (Verb) to put something long & thin eg thread) through a narrow hole or space

### Templates

A template is a form, mold or pattern used as a guide to make something. In the manufacture of textiles items, templates are used to ensure accuracy & consistency when cutting fabrics. Templates are pinned to fabric and the fabric cut out around the prepared shape ensuring accuracy & consistency

The design brief is the first part of the design process.

It is a clear statement which is a reference for both client and designer. Defines goals, avoid misunderstanding & sets standards

### The 6 Rs of sustainability are:

rethink,,refuse,,reduce, reuse, repair, recycle.

The 6Rs are ordered according to their priority and you should prioritise actions that appear earlier in the list.

How fabrics are constructed & the properties that make different fabrics suitable for different uses.

How to join & decorate fabrics with hand sewing techniques.

Popular themes, details & colours of Indian culture.

How to use a mood board as a design tool to create original designs on a given theme

The 6 rs & how they can be applied for sustainable products.

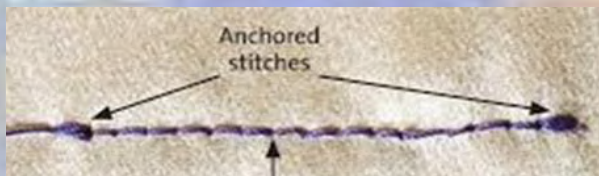
How to make templates & employ them to use fabric economically, increasing efficiency & to reduce waste.

### Hand stitching techniques

#### Running stitch



#### Anchored stitches



### Cultural reference

### The Singh twins

The Singh Twins are two contemporary female artists from Liverpool. They are twin sisters who create their highly detailed artworks together and have exhibited their pieces around the world. The Singh Twins are famed for their intricate, brightly coloured artwork which combine traditions from both Eastern and Western art.

### Indian culture

Traditional Indian products are highly decorative & colourful. Originally, fabric dyes & paints would have been made from plants & natural substances. Rangoli patterns

Textiles, dress, and jewellery have all been important aspects of culture in India. Skilled craft workers developed a huge range of techniques including dyeing, weaving, printing, and embroidery, for use in producing religious images, tents for Mughal courts, elephant trappings, silk saris, waist cloths, and jewellery.

Rangoli patterns are bright, colourful, geometric designs which are associated with the Hindu religion



# Year 8 Steady Hand Game Knowledge Organiser

**A**

## Aesthetics

Does the product look good? Does it make good use of colour and texture? What has inspired its appearance?

**C**

## Customer

Who is it designed for? What impact would it have on their life? Why would they buy it? Where would they use the product?

**C**

## Cost

What is the estimated cost of the product? Is the product affordable? Is it value for money?

**E**

## Environment

What is the products impact on the environment? What happens to it after its use? Can it be repaired or recycled?

**S**

## Safety

Is the product of high quality? Does it meet safety standards? How have you considered safety? Could the product hurt anyone?

**S**

## Size

Is it an appropriate size? If it was bigger or smaller, would it look or function better? What size is it?

**F**

## Function

Does the product function as intended? How does it work? How easy is it to use? Does it have a secondary function?

**A**

## Anthropometrics

How is it designed to fit the client? What measurements need to be considered? How will the client interact with the product?

**M**

## Materials

What materials are used to make it? How could materials impact the environment? Could other materials make it better?

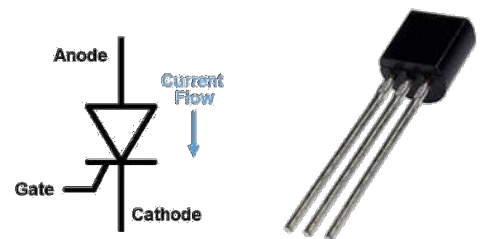
**E**

## Ergonomics

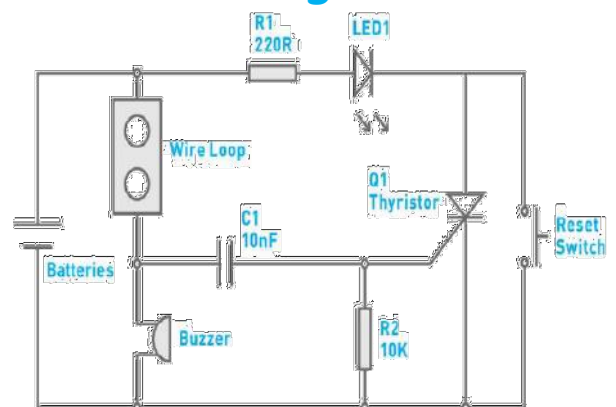
How has the product been designed to improve the comfort of the end user? Is it comfortable? Is it too heavy?



A thyristor operates by staying 'latched on' once the stimulus - the trigger voltage, has gone away. Now we can have an alarm or a 'steady hand' game that will give a constant output when the circuit is triggered.



## The Circuit Diagram



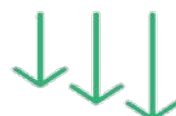
RETHINK



REFUSE



REPAIR



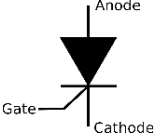


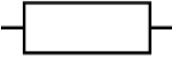

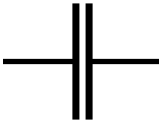
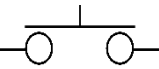

REDUCE



REUSE



RECYCLE

Component	Symbol	Function in Circuit	Cost
Thyristor 2N5061		Thyristors are often used to control alternating currents, where the change of polarity of the current causes the device to switch off automatically.	£0.14
Piezo Buzzer		An electronic device that's used to produce a tone, alarm, or sound.	£0.82
LED		LEDs (Light Emitting Diodes) convert electrical energy directly into light, delivering efficient light generation with little-wasted electricity.	£0.04
Resistor 1 220R		A resistor is an electrical component that limits or regulates the flow of electrical current in an electronic circuit, protecting the LED.	£0.0095
Resistor 2 10KR		A resistor is an electrical component that limits or regulates the flow of electrical current in an electronic circuit.	£0.0095
Capacitor 10nf		A capacitor is used to store the electric charge.	£0.0017
Push to Make Switch		The push to make switch enables electricity to flow through the circuit whenever the two contacts are held in. This will act as a reset button.	£0.16
Battery		A battery produces electricity.	Not Supplied

## Manufacturing Production Methods

A **One-off** product is manufactured as a single item. These can be small (e.g., jewellery) or large (e.g., bridges) and anything in between. Specialist companies employ skilled staff to work with a client to design their brief. It is an expensive way to make things as it is labour intensive and takes a lot of time.

**Batch** production is a method whereby a group of identical products are produced simultaneously (rather than one at a time). It is up to the manufacturer to decide how big the batch will be, and how often these batches will be made. Each batch goes through the separate stages of the manufacturing process together.

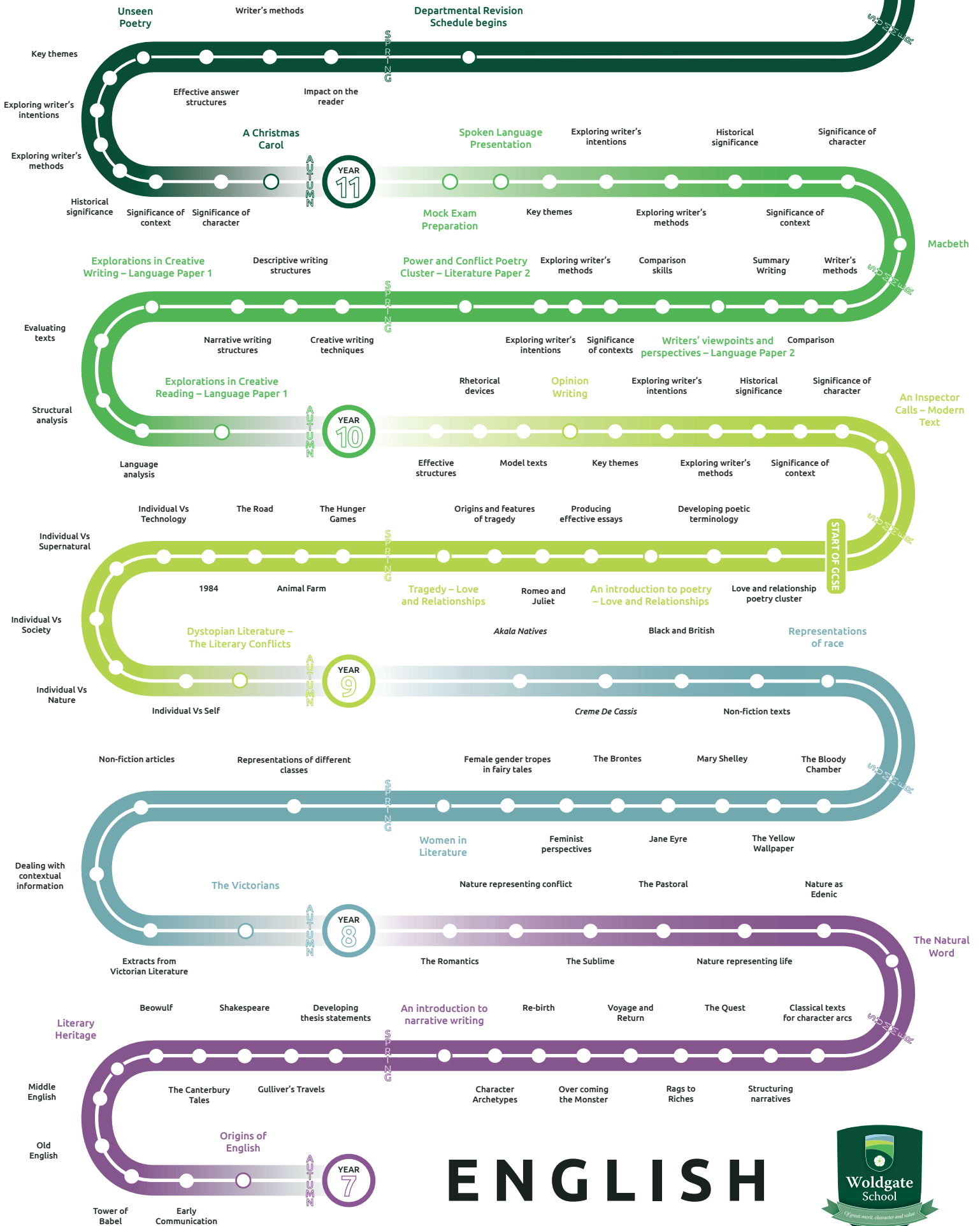
**Mass** production is the manufacturing of large quantities of standardized products, often using assembly lines or automation technology. Mass production facilitates the efficient production of a large number of similar products.



**GCSE EXAMINATIONS**

Two English Language Papers

Two English Literature Papers



**ENGLISH**



### Key vocabulary

**Gender:** the sex of a person or animal.

**Stereotype:** both archetypes and stereotypes deal with what is typical about something. However, stereotypes tend to focus on negative characteristics.

**Representation:** the description or portrayal of someone or something in a particular way.

**Feminism:** the believe that women should have the same social, political, and economic rights as for men.

**Subvert:** to go against something.

Characterisation

**Protofeminism:** the name given to the period of time where people wanted equal rights, but the word *feminism* was not yet in use.

**Prose:** writing or speech in its usual form of a series of sentences. Most language that is not poetry can be described as prose. Novels, short stories, essays, and letters are examples of writing done in prose.

**Dramatic irony:** a story structure where the reader has more information than the characters. It can create tension, suspense, or comedy.

**Dynamic:** a type of character that changes their personality or attitude throughout a story.

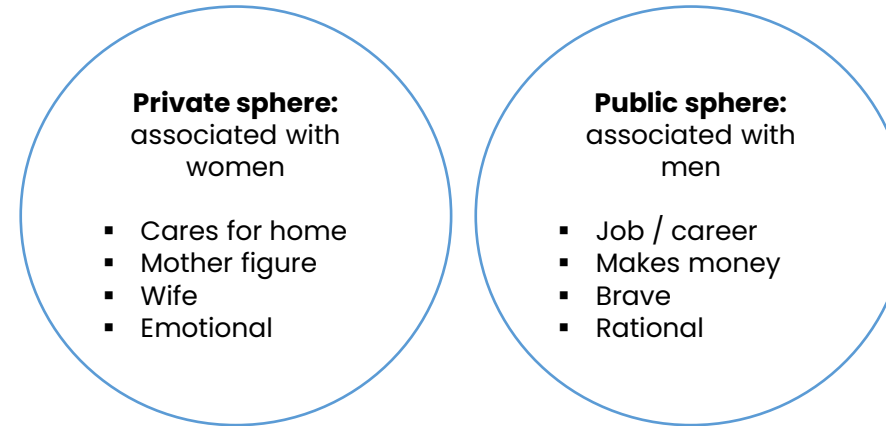
**Static:** a character who has little or no change in their personality throughout a story.

### Key concepts

A lot of the gender stereotypes that exist are linked to the idea of **gender roles**. Gender roles are the social roles that are considered acceptable, appropriate, or desirable for a person based on that person's sex.

### Public and private spheres

This view of gender is outdated and goes back to the Greeks. The terms **private sphere** and **public sphere** were first used in 1962:



### How are women often represented Literature?

**The fallen woman:** this is a female character who was innocent, but then lost her innocence. This type of character is often presented as doing some immoral. An example of the fallen woman is Eve in *Paradise Lost* by John Milton.

**The innocent:** this character is often presented and graceful and beautiful. They often lack independence and need to be saved by the archetypal hero. Lots of Disney princesses can be considered innocents.

**The old maid:** in Literature, the old maid is normally an older woman who is presented as lonely and bitter. An example of an old maid is Miss Havisham in *Great Expectations* by Charles Dickens.





**ETHOS**  
USING CHARACTER, CREDIBILITY AND ETHICS TO PERSUADE



**PATHOS**  
USING EMOTIONS AND PASSION TO PERSUADE



**LOGOS**  
USING LOGICAL REASONING AND EVIDENCE TO PERSUADE

### Analytical verbs

Verbs to use at the beginning of a text...	Verbs to show how a writer uses a quotation for effect...	Verbs to show how the writer creates a feeling or emotion...	Verbs to explore prose structure...
Constructs	Illustrates	Evokes	Foreshadows
Establishes	Portrays		
	Reveals		

### Writing analytical essays

#### The what

- What is the writer trying to tell us about the character / theme / setting?
- What emotions are being conveyed?
- What do they want us to feel as a reader?

#### Writing stem ideas

At first glance [text] is about \_\_\_\_\_, but at a deeper level it can be seen to represent \_\_\_\_\_.  
Although [the text] appears to be about \_\_\_\_\_, it is also referring to \_\_\_\_\_.  
Despite [character's + phrase to summarise], they can also be seen as [opposing phrase to summarise the character.]

#### The how

Introduce your evidence and then consider...

- How is the writer doing this?
- How do they use the language (word, phrase, techniques) • form / structure to do this?
- How does it tell us something about the context?

#### Writing stem ideas

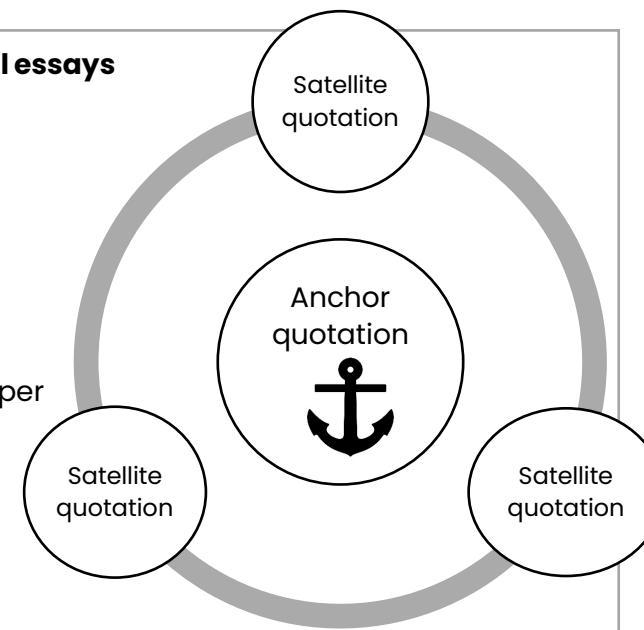
This [literary device] **conveys** a sense of \_\_\_\_\_.  
[Writer] uses [device] to **depict/portray/suggest** \_\_\_\_\_.  
Furthermore, the word ' \_\_\_\_\_ ' **evokes** an image/atmosphere/feeling of \_\_\_\_\_.

#### The why

- Why is the writer doing this? How does the context of production affect their views?
- Why did they choose that language?
- Why might they want us to interpret it in different ways?

#### Writing stem ideas

**Thus**, [writer] is drawing the reader's attention to \_\_\_\_\_.  
**Hence**, [writer] is challenging ideas about \_\_\_\_\_.  
**Consequently**, [writer] is highlighting \_\_\_\_\_.

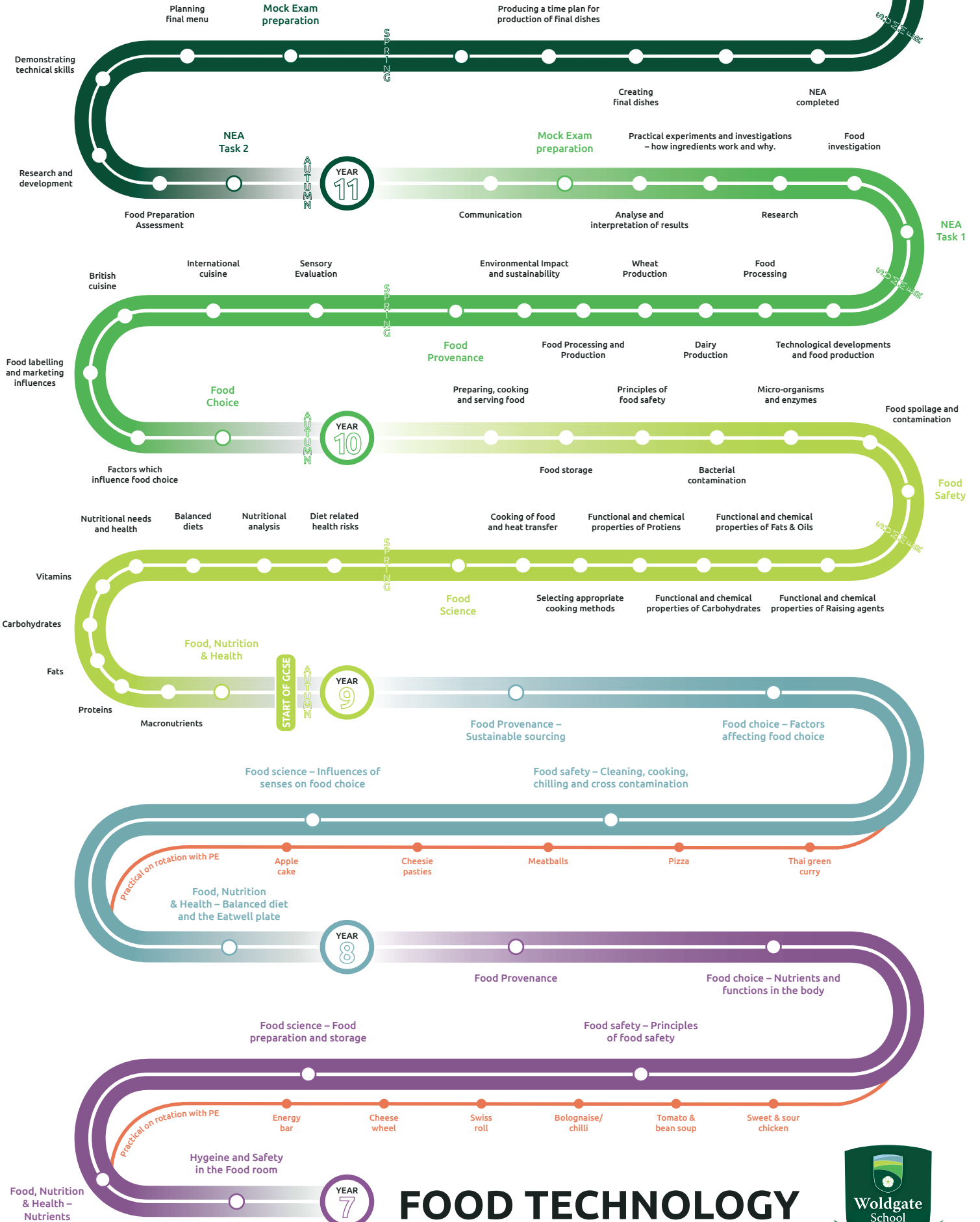




**GCSE EXAMINATIONS**

1x GCSE Examination Paper

Revision of Key Topics



**FOOD TECHNOLOGY**



# Knowledge Organiser – Year 8 Food and Nutrition

## Key Words

**DANGER ZONE** = Bacteria grow quickly between 5-63c.

**Traceability** = The capability of being able to trace something from its origin through to an end product. For example, Farmers keep traceability records so we know where animals have come from and where they go.

**Sustainability** = The ability to be maintained at a certain rate or level with the avoidance of the depletion of natural resources

**Consumer confidence** = statistical measure of consumers' feelings about current products and brands.

**Food security** = The state of having reliable access to a sufficient quantity of affordable, nutritious food.

**Fairtrade** = Trade between companies in developed countries and producers in developing countries in which fair prices are paid to the producers.

When preparing food remember **HATTIE**

**H** - Tie your hair back or wear a hairnet/hat. Wash your hands

**A** - Put an apron on

**T** - Clean your table with antibacterial spray

**T** - Collect a cutlery tray

**I** - Collect all the ingredients you need

**E** - Collect equipment you need; prepare any tins/baking sheets (e.g. grease or line tins)

## Knowledge

**hazard** = The potential of risk from a substance, machine or operation

**Risk** = what degree in reality a hazard may cause.

**Factors affecting food choice include:-**

- individual energy and nutrient needs;
- diet and health;
- religion and culture;
- cost of food;
- food availability.
- time of day and occasion;
- food preferences;
- social considerations;
- environmental considerations;
- advertising and other point of sale information.

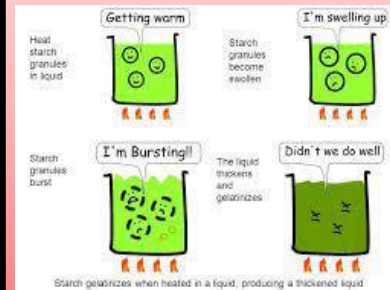
## Kneading



## White sauce



## Gelatinisation



## Numeracy

Accurate measurements are key to the success of your product  
Always use a scales, a jug or a measuring spoon.

**G** = grams

**KG** = kilograms

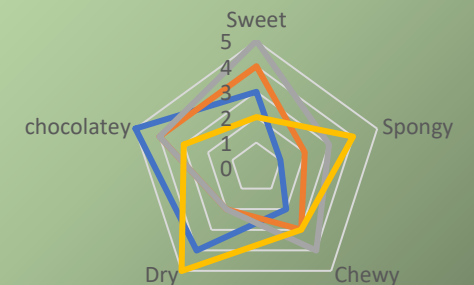
**Tsp** = teaspoon

**Tbsp** = tablespoon

**ml** = millilitres

## Example of a practical evaluation

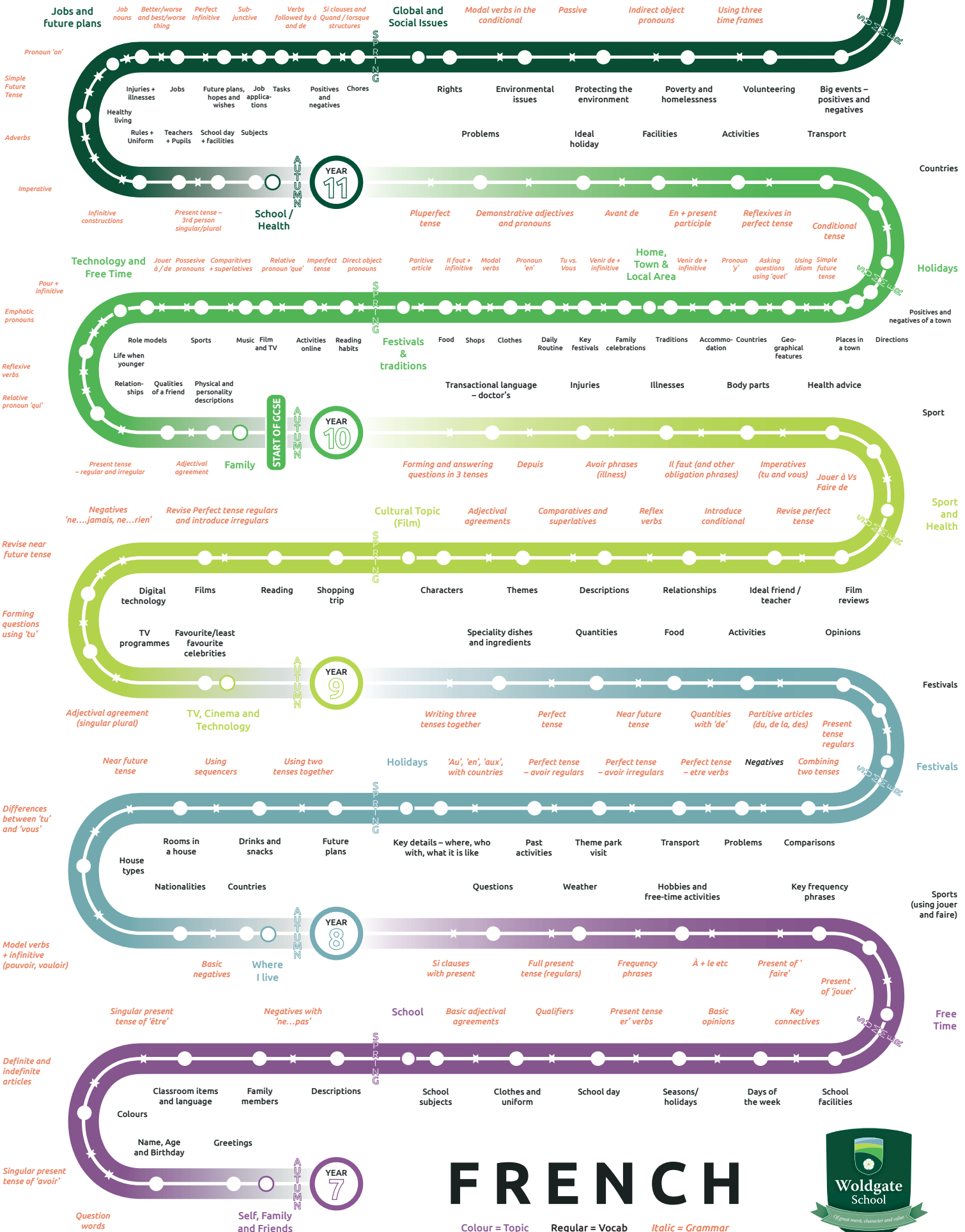
Person 1 (Blue line)  
Person 2 (Orange line)  
Person 3 (Grey line)  
Person 4 (Yellow line)





**GCSE EXAMINATIONS**

Reading (25%)  
Listening (25%)  
Writing (25%)  
Speaking (25%)



**FRENCH**

Colour = Topic Regular = Vocab *Italic = Grammar*







## Aller en vacances – Going on holiday

D'habitude (Usually)	je vais (I go)	nous allons (we go)	en France (to/in France)	au Portugal (to/in Portugal)
Normalement (Normally)	tu vas (you go)	vous allez (you all go)	en Espagne (to/in Spain)	à la mer (to/at the seaside)
Tous les ans (Every year)	il va (he goes)	ils vont (they (m) go)	en Grèce (to/in Greece)	à la montagne (to/in the mountains)
	elle va (she goes)	elles vont (they (f) go)	en Italie (to/in Italy)	à la campagne (to/in the countryside)
	on va (one goes)		aux États-Unis (to/in the USA)	

**Où vas-tu en vacances?**  
Je vais ...  
en France.  
en Espagne.  
au Danemark.  
aux Pays-Bas.

**Where do you go on holiday?**  
I go...  
to France  
to Spain  
to Denmark  
to the Netherlands

*J'habite ... (I live ...)*  
*Je vais en vacances ... (I go on holiday ...)*  
**en** + feminine country, e.g.  
*en Angleterre/France/Belgique/Autriche*  
(in/to England/France/Belgium/Austria)  
**au** + masculine country, e.g.  
*au pays de Galles/Royaume-Uni*  
(in/to Wales/the UK)  
**aux** + plural country, e.g.  
*aux États-Unis/Pays-Bas*  
(in/to the United States/the Netherlands)

avec mes copains/copines.  
with my friends (male or mixed / female)

avec ma famille.  
with my family

avec mes grands-parents.  
with my grandparents

seul(e).  
alone.



**C'est comment?**  
What is it like?

C'est extra/formidable!  
It's amazing!

C'est bien.  
It's good.

Ce n'est pas mal.  
It's not bad.

C'est (un peu) ennuyeux/nul.  
It's (a bit) boring / rubbish.



Je vais en vacances...	I go on holiday...
au bord de la mer.	to/on the coast
à la montagne.	to / in the mountains
à la campagne.	to / in the countryside
en colo (en colonie de vacances).	to a holiday camp
chez mes grands-parents.	to my grandparents' house

## J'ai visité... - I visited...

The perfect tense is a past tense. Use it to say what you did or have done.

To form the perfect tense of most verbs, you need:

- 1 part of the verb **avoir**
- 2 a past participle (**joué, mangé**, etc.).







To form the **past participle** of regular -er verbs, take the -er ending off the **infinitive** and replace it with **-é**.

**regarder** → **regardé**

**j'ai regardé** I watched  
**tu as regardé** you (singular) watched  
**il/elle/on a regardé** he/she / we watched  
**nous avons regardé** we watched  
**vous avez regardé** you (plural or polite) watched  
**ils/elles ont regardé** they watched

L'année dernière – Last year			
J'ai joué	au tennis au basket	I played	tennis basketball
J'ai mangé	des glaces des pizzas	I ate	icecreams pizzas
J'ai retrouvé	mes amis mes cousins	I met up with	my friends my cousins
J'ai écouté	de la musique des concerts	I listened	to music to concerts
J'ai acheté	des baskets des cadeaux	I bought	trainers presents
J'ai regardé	des clips vidéo des films	I watched	video clips films
J'ai nagé	dans la mer dans la piscine	I swam	in the sea in the pool
J'ai traîné	à la maison au parc	I hung out	at home in the park

## Le transport - *Transport*

J'ai	voyagé	en avion. 	I		by plane
Tu as		en bateau. 	You		by boat
On a		en bus. 	We		by bus
Nous avons		en car. 	We	travelled	by coach
Vous avez		en train. 	You		by train
Ils/Elles ont		en voiture. 	They		by car

<b>Je suis allé(e)</b> <i>I went</i>	<b>en vacances. en France.</b>	<b>J'ai voyagé</b> <i>I travelled</i>	<b>en avion</b> <i>by plane</i>	<b>C'était</b> <i>It was</i>	<b>vite/rapide</b> <i>quick</i>
<b>On est allé(e)</b> <i>We went</i>	<b>en Espagne. en Grèce. en Écosse. en Italie. au Maroc. aux États-Unis.</b>	<b>On a voyagé</b> <i>We travelled</i>	<b>en bateau</b> <i>by boat</i>		<b>lent</b> <i>slow</i>
			<b>en bus</b> <i>by bus</i>		<b>tôt</b> <i>early</i>
			<b>en car</b> <i>by coach</i>		<b>tard/en retard</b> <i>late</i>
			<b>en train</b> <i>by train</i>		<b>(in)confortable</b> <i>(un)comfortable</i>
			<b>en voiture</b> <i>by car</i>		<b>facile</b> <i>easy</i>
					<b>difficile</b> <i>difficult</i>

## Qu'est-ce que tu as fait ? – *What did you do ?*

	<b>D'abord</b>	<i>Firstly</i>
	<b>Ensuite</b>	<i>Next</i>
	<b>Puis</b>	<i>Then</i>
	<b>Après</b>	<i>After</i>
	<b>Finalement</b>	<i>Finally</i>
<b>J'ai bu</b>	<b>un coca un café une limonade</b>	<i>I drank</i> <i>coke coffee lemonade</i>
<b>J'ai vu</b>	<b>un spectacle des feux d'artifices mes personnages préférés</b>	<i>I saw</i> <i>a show fireworks my favourite characters</i>
<b>J'ai fait</b>	<b>une balade en bateau une balade en train tous les manèges</b>	<i>I did</i> <i>a boat ride/tour a train ride/tour all the rides</i>
<b>J'ai pris</b>	<b>des photos de l'argent pour les magasins un pique-nique</b>	<i>I took</i> <i>photos money for the shops a picnic</i>

Some verbs are irregular. You need to learn the **past participles** by heart!

**boire** (to drink) → **j'ai bu** (I drank)

**voir** (to see) → **j'ai vu** (I saw)

**faire** (to do / make)\* → **j'ai fait** (I did / made)

**prendre** (to take) → **j'ai pris** (I took)

\***faire** can have other meanings. It often means 'to go', or 'to go on'.

## Je suis allé(e)... - I went

Some verbs use *être* (not *avoir*) to form the perfect tense.

The **past participle** of these verbs must agree with the subject. Add an extra **-e** if the subject is **feminine** and **-s** if the subject is **plural**.

<i>aller</i>		<i>to go</i>
je suis <b>allé(e)</b>		I went
tu es <b>allé(e)</b>		you (singular) went
il est <b>allé</b> /elle est <b>allée</b>		he/she went
on est <b>allé(e)s</b>		we went
nous sommes <b>allé(e)s</b>		we went
vous êtes <b>allé(e)s</b>		you (plural or polite) went
ils sont <b>allés</b> /elles sont <b>allées</b>		they went

Other verbs that take *être* in the perfect tense include *arriver* (to arrive), *partir* (to leave), *rester* (to stay) and *rentrer* (to return).

Look back at exercise 1 and look at the past participles that agree, and explain why.

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### Key past participles:

**allé(e)** – went

**resté(e)** – stayed

**sorti(e)** – went out

## Quel désastre! – What a disaster!

<b>J'ai oublié</b>	mon passeport mon argent	<b>I forgot</b>	my passport my money
<b>J'ai cassé</b>	mon portable ma valise	<b>I broke</b>	my phone my suitcase
<b>J'ai perdu</b>	mon portable mon porte-monnaie	<b>I lost</b>	my phone my purse/wallet
<b>J'ai vomi</b>	au restaurant	<b>I vomited</b>	at the restaurant
<b>Je suis tombé(e)</b>	sur la plage	<b>I fell over</b>	at the beach
<b>Je suis resté(e)</b>	au lit à l'hôtel	<b>I rested/stayed</b>	in bed at the hotel
<b>J'ai raté</b> <b>On a raté</b>	l'avion le bus	<b>I missed</b> <b>We missed</b>	the plane the bus
<b>Je suis arrivé(e)</b> <b>On est arrivés</b>	en retard trop tôt	<b>I arrived</b> <b>We arrived</b>	late too early
<b>Je n'ai pas</b>	acheté des souvenirs pris des photos	<b>I did not</b>	buy souvenirs take photos
<b>Je ne suis pas sorti</b>		<b>I did not go out/leave</b>	

To make a perfect tense verb negative, put

**ne ... pas** around the part of *avoir* or *être*.

Remember, **ne** shortens to **n'** in front of a vowel.

Je **n'ai pas** regardé la télé.

Nous **ne** sommes **pas** allés à la plage.

After a negative, **un**, **une** and **des** become **de**:

Je **n'ai pas** acheté **de** souvenirs.

## Normalement et dans le passé – *Normally and in the past*

<b>Normalement...</b>	<b>L'année dernière</b>
Je vais – <u>I go</u>	Je suis allé(e) – <u>I went</u>
Je voyage – <u>I travel</u>	J'ai voyagé – <u>I travelled</u>
Je fais – <u>I do</u>	J'ai fait – <u>I did</u>
Je mange – <u>I eat</u>	J'ai mangé – <u>I ate</u>
Je nage – <u>I swim</u>	J'ai nagé – <u>I swam</u>
J'aime – <u>I like</u>	J'ai aimé – <u>I liked</u>
C'est – <u>It is</u>	C'était – <u>It was</u>



**GCSE EXAMINATIONS**

Revision

UK in the 21st century

Physical Geography of the UK  
London's booming population  
The UK's global role and our influence in conflicts, media and food

Resources & shortages  
Food, Water and Energy security  
Food security

Development case study

Human Geography of the UK  
The UK's ageing population  
The UK's changing economy and post-industrial UK

Resource reliance  
Farming & fishing for food  
Theories on the future  
Fieldwork

Barriers to development

Dynamic development

Cities case study  
Urban population explosion and growth of slums  
Super-sized cities in an urban world  
Human impacts on the TRF  
Polar environments  
Characteristics and value of a tropical rainforest  
Distributions of biomes & their climate, flora and fauna

Uneven development

YEAR 11

The global development divide and measuring development  
Defining development  
Urban trends in the UK  
How cities began and grew  
Urban futures  
Characteristics of polar regions  
Human Impacts on a tropical rainforest  
Ecosystems and interdependence

Sustaining ecosystems

Contrasting case studies of natural weather  
Plate boundaries and tectonic cases studies

Distinctive Landscapes  
The physical and human landscape of the UK  
Coastal erosional and depositional landforms  
Rivers  
Fieldwork

Tropical storms, drought & El Nino

Structure of the Earth  
Mitigation of tectonic hazards

What makes a distinctive landscape  
Geomorphic processes  
River landforms  
Coasts case study

Extreme weather conditions

Global hazards

UK impacts of climate change  
Greenhouse effect  
Natural causes of climate change  
Patterns of climate change

Changing Climates

Global circulation system and climate zones

START OF GCSE  
YEAR 10

Global impacts of climate change  
Human causes of climate change  
Evidence of climate change

UK's place in the wider world

Globalisation  
Clone Towns

Russia – What are the opportunities and challenges facing Russia?  
Biomes  
Human Issues  
Middle East – Why is the Middle East an important region?  
Biomes  
Human Issues

Transition to GCSE

Going global

BREXIT  
Loss of Culture

Location  
Skills  
Physical Issues  
Location  
Skills  
Physical Issues

Evidence of glaciation in the Lake district

Physical Issues  
Skills  
Location  
Flood hazards and management  
Fluvial process including weathering

Changing glaciers

Movement  
Glacier formation

YEAR 9

Human Issues  
Biomes  
Asia – What are the opportunities and challenges facing Asia?  
River features and landforms

Hydrology – Why are rivers important?

Tectonic Hazards – Why do people remain at risk?  
Plate margins & movement  
Earthquake processes

Rocks  
Biosphere  
Natural resources for energy  
Changing Economies – How have shifting economies impacted cities across the globe?  
Sectors of industry  
Industrialisation of NEEs

Addressing inequality

Sustainable development

Earth structure  
Volcano processes  
Tsunami

Resource risk – Are we running out of natural resources?  
Soils  
Hydrosphere  
Sustainability  
Urban problems  
Deindustrialisation

Poverty

Development – Why are some places more developed than others?

Human Issues  
Biomes  
Africa – What are the opportunities and challenges facing Africa?  
Migration  
Population distribution and settlement factors

Population change

Change over time

Measuring development  
Distribution of Wealth

YEAR 8

Physical Issues  
Skills  
Location  
Urbanisation

Population – Can we solve the problem of overpopulation?

Difference between weather and climate

Extreme weather  
Beast from the East

Coasts – Should we defend our coastlines?  
Landforms  
Coastal case study  
Rainforests  
Tourism

Weird Weather – Is Weather becoming more extreme?

Coastal processes  
Coastal management  
Economy Vs Environment – Are we risking our natural world in order to make money?  
Antarctica  
Hydrocarbons

Map skills

How do Geographers think?

YEAR 7

Locational knowledge

What is a geographer?

**GEOGRAPHY**



# RESOURCE RISK

## KEY WORDS

Biological weathering	when rocks are weakened and broken down by plants, animals and microbes
Biome	a large community (large ecosystem) of plants and animals found in a major habitat such as rainforests, tundra, etc.
Chemical weathering	when rocks and materials are weakened and eroded by chemical reactions from substances dissolved in water (such as salts, acids, etc.)
Clay	a figure or line representing northward distance on a map (expressed by convention as the second part of a grid reference, after easting)
Crude oil	naturally occurring and unrefined petroleum that can be refined into diesel, petrol, gasoline, kerosene and other petrochemicals
Fossil fuel	a natural hydrocarbon fuel such as petroleum, coal or natural gas, which is formed by the fossilised (preserved) remains of ancient plants and animals that are deposited over millions of years
Freeze-thaw weathering	when rocks are broken down and weakened when water seeps into cracks then freezes and expands, which breaks rocks apart over time
Geologists	expert scientists who study the structure of the Earth and its rocks
Impermeable	when materials cannot let liquids in, are water resistant
Natural resources	substances that are found in nature which can be used by humans for our benefit, such as water, soil, coal, minerals, wood, animals, etc.
Non-renewable	substances which are limited and so will run out one day or cannot be replaced during our lifetime, such as natural gas, coal, etc.
Industrial revolution	a period of time when places became heavily industrialised, relying on machines for agriculture or transport or manufacturing, such as in the UK during the late 1700s and early 1800s when innovations saw machinery and factories appear rapidly across the nation
Porous	when materials such as rocks have small pores (holes) which allow liquids or air to pass in and out
Raw materials	the basic materials or substances from which products can be made, such as wood that can be transformed into furniture, etc.
Renewable	resources that can be replaced over time, and will not run out, such as water, wind, forests, etc.
Water scarcity	lack of freshwater resources available to meet the demands of water use in an area
Weathering	the process by which rocks and materials are broken down due to biological and weather processes such as rainfall, ice, wind, plant roots, etc.

## WEATHERING

**Freeze-thaw weathering** occurs when water gets into a crack in a rock and freezes. As the water turns to ice it expands and causes the crack to widen. Repeated freezing and thawing weakens the rock, which eventually splits into pieces.

**Chemical weathering** occurs when rainwater, which is slightly acidic, comes into contact with rock. The acid attacks the rock, causing it to rot and crumble.

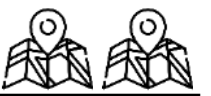
**Biological weathering** is when plants and animals break down rock. The roots of plants and trees can get into cracks in rocks, causing them to split. Burrowing animals and worms can also weaken rock.

## HOW COAL WAS FORMED

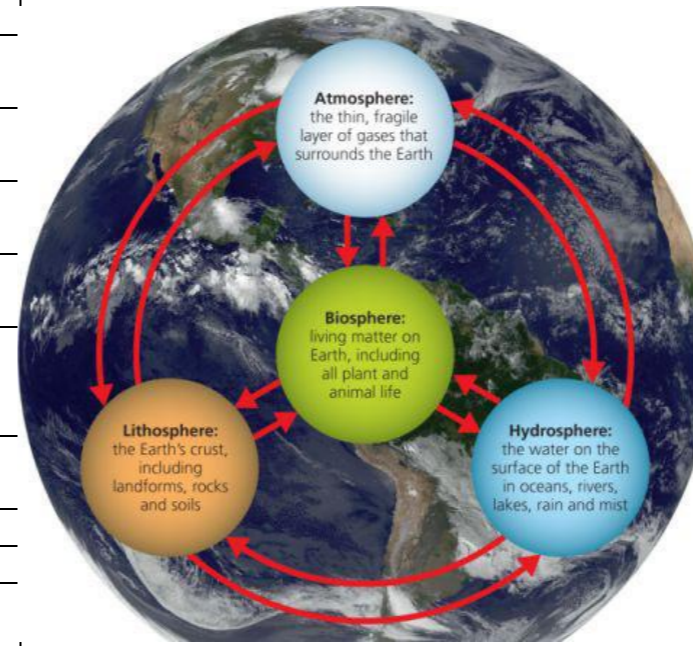
### How coal was formed

- Plant matter fell to the bottom of the swamp and began to decay.
- The levels of decaying plant matter built up.
- More water and dirt washed into the swamp and halted the decay.
- The plant matter became peat.
- The weight of the water and dirt compacted the peat.
- Under the heat and pressure oxygen was forced out of the peat.
- Rich hydrocarbon deposits were left behind.
- The plants had gradually turned into coal.

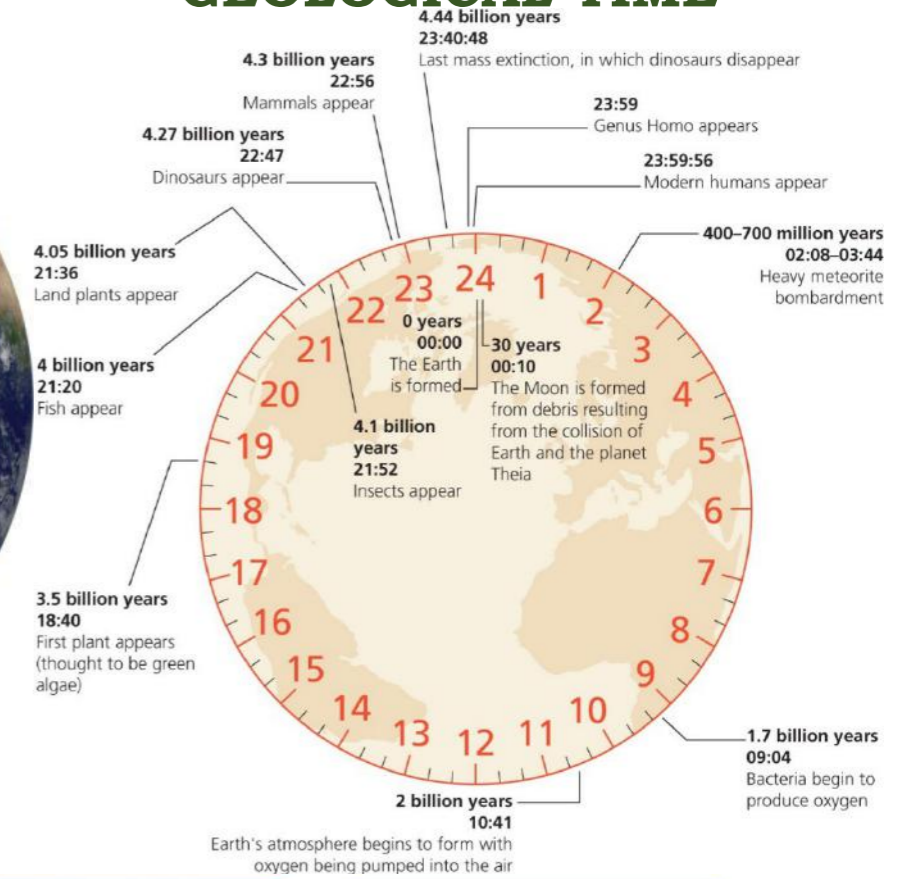
# KNOWLEDGE ORGANISER



## THE EARTH'S SPHERES



## GEOLOGICAL TIME



## TYPES OF ROCK

### Igneous rock

This is formed from molten rock often linked to volcanoes. The molten rock may cool slowly, allowing time for minerals to form large crystals, which lock together. Granite and basalt are types of igneous rock. Igneous rocks are very hard and durable. In the UK they form mountainous areas. People use igneous rocks to construct some buildings. Crushed granite is often used to surface roads. Igneous rocks are also important sources of minerals like diamonds.

### Sedimentary rocks

Most of these types of rocks are formed under the sea. Rock particles carried by rivers were washed out to sea, and settled on the sea floor. On the sea bed they were buried by newer sediment, squeezed and cemented together over thousands of years to form new rock. These rocks also include the fossilised remains of sea creatures. Chalk and limestone are examples of sedimentary rocks that are made up almost entirely from fossils. Sedimentary rocks include valuable rocks such as coal and iron ore. Salt and potash are also important raw materials for the chemical industry. Sand and gravel are used for making concrete and cement. Clay is used to make house bricks.

### Metamorphic rocks

These rocks form from existing rocks that are transformed by great heat or pressure. These changes lead to the existing minerals melting and forming new minerals. Marble and slate are examples of metamorphic rocks. The sedimentary rock, mudstone, is transformed into slate, and limestone into marble. Slate is very durable and is formed in thin layers, which can be cut into thin, strong tiles, ideal for making roof tiles. Marble is used as a building stone, and to make sculptures.

## HOW OIL AND GAS WAS FORMED

- Tiny sea plants and animals died and were buried on the ocean floor
- Over a long period of time, they were covered by layers of sediment and rock
- Over millions of years the enormous heat and pressure from the layers pressing down on them turned them into oil and gas

## USES OF OIL

**What can just one barrel of oil produce?**

- Distillate fuel to keep a large truck going for nearly 40 miles
- Wax for 170 birthday candles or 27 crayons
- Enough petrol to keep a medium-sized car going for more than 280 miles
- Four pounds of charcoal briquettes
- Two pints of motor oil
- Almost 70 kilowatt-hours of electricity at a power plant that is generated by residual fuel
- Liquefied gases to fill 12 small cylinders which can be used for camping
- Asphalt to make about one gallon of tar for streets or roofs

**What can be made from the petrochemicals that are left?**

- 39 polyester shirts
- 135 rubber balls
- 65 plastic drinking cups
- 23 hula hoops
- 540 toothbrushes
- 195 one cup measuring cups
- 750 pocket combs
- 11 plastic telephone housings

## UK ENERGY POLICY

Investment in renewable energy has increased 42% since 2010

In 2014 30% of all of Europe's renewable energy investment took place in the UK

The government announced in 2016 that it would build more nuclear power stations in the UK to provide "clean, secure energy"

In 2016 the government committed to closing coal fired power stations

But then:

In 2022 the government approved the first new UK coal mine in 30 years despite concern about its climate impacts among Conservative MPs and experts.

The proposed mine in Cumbria would dig up coking coal for steel production in the UK and across the world.

Critics say the mine would undermine climate targets and demand for coking coal is declining.

## SOIL PROFILE

**3** This is a layer of organic matter that is about 2–3 cm thick and is made up of dead plant material, such as leaves and twigs.

**1** This layer is 5–20 cm thick. It consists of organic matter and minerals. This is the soil layer where most plants and organisms live.

**5** This layer has minerals as well as organic matter, which have been washed down by rainwater. It has little humus. Tree roots reach down to this layer.

**4** This layer contains rocks from the lowest layer, weathered and broken into chunks. The upper soil layers have developed from this.

**2** This layer is made up of a solid mass of underlying rock.

**B** Earthworms burrow through the soil

The rainforest biome, contains 75 per cent of the world's plants, and about 50 per cent of the animals. The largest rainforest, the Amazon, is 5.5 million km<sup>2</sup>. The different vegetation layers found in every rainforest are shown in Photo B. Plants and animals of the biosphere have to adapt to the conditions, coping with too much water, the poor soils, and lack of daylight on the forest floor. The dense trees protect the fragile soil from the rainfall. This is a system in harmony, with all of the Earth's spheres working together.

## THE RAINFOREST BIOME

### Tropical rainforests in our daily lives

**D**o you think of tropical rainforests as faraway places that have nothing to do with your daily life? Think again. You rely on forests more than you know.

**Food**  
The world's most popular fruit, the banana, comes from the rainforest as do avocado, cashews, Brazil nuts, spices like vanilla, and sugar, coffee, tea, and cocoa.

**Medicine**  
Many of the Western medicines that we use today are derived from plants found in tropical forests including medications to treat or cure rheumatism, diabetes, muscle tension, surgical complications, malaria, heart conditions, skin diseases, arthritis, glaucoma and many others.

**Timber**  
Tropical forests grow some of the most beautiful and valuable woods in the world, such as teak, mahogany, rosewood, balsa, sandalwood, and countless lesser-known species. We use this wood for furniture, doors and panelling. Other forest products show up in your home and office, too. Tropical forest fibres are found in rugs, mattresses, ropes, strings, and fabrics.

**Cosmetics**  
Tropical oils are key ingredients in cosmetics, soaps, shampoos, perfumes, disinfectants and detergents.

**Role in the Earth's system**  
Rainforest make a vital contribution to the Earth's systems. The thick vegetation protects the soil from the heavy rainfall. The dense forests absorb carbon dioxide from the atmosphere.

## HOW NATURAL RESOURCES CAN GENERATE ELECTRICITY

### J Natural resources that can generate electricity

**Solar power** is the conversion of the Sun's energy into electricity. This method is ideal in hot, cloudless conditions, but less effective in areas that have a lot of cloudy days or are located at high latitudes, which effects the angle of the Sun. Locations at mid-latitudes are more suitable.

**Wind power** is becoming more and more common. The wind turns the large turbine blades to generate electricity. The turbines need to be located in areas with regular strong winds. This method will obviously only generate electricity when there is wind, so it is inconsistent. Wind farms are expensive to build and they have a negative visual impact on the landscape.

**Hydroelectric power** uses fast-flowing water to turn generators to produce electricity. A reliable supply of fast-flowing water is needed. This may be near a waterfall. The dams are expensive to build and can lead to the flooding of farmland. There is a limited choice of locations with the necessary requirements. This method produces very little pollution.

**Nuclear reaction** releases energy. Atoms of the mineral uranium are split creating heat energy, which turns water to steam and drives huge turbines to create electricity. This is expensive to build and there are risks of radioactive leaks.

**Fossil fuels** such as natural gas, coal and oil are all used to produce electricity on a large scale. They can generate huge amounts of electricity in just a single location. They are efficient and have been cheap. They can keep generating all the time. The process involves burning the fuel to produce steam that drives the turbines. This unfortunately pollutes the atmosphere. The fossil fuel reserves are also running out, and are expected to last only another 100 years, given our current rate of consumption.

**Geothermal energy** uses heat produced continuously inside the Earth's crust. Hot rocks present below the Earth's surface heat up the water that produces steam. The steam is then captured to turn the turbines. There are limited locations where this is possible. These power stations are expensive to build and maintain and these sorts of locations are prone to volcanoes and earthquakes.

**Tidal energy** uses the rise and fall of tides to convert incoming and outgoing tides into electrical energy. Barrages have to be built across coastal estuaries and this can be expensive, disruptive for shipping and damaging to the environment. There are also limited coastal locations with a wide enough tidal range.

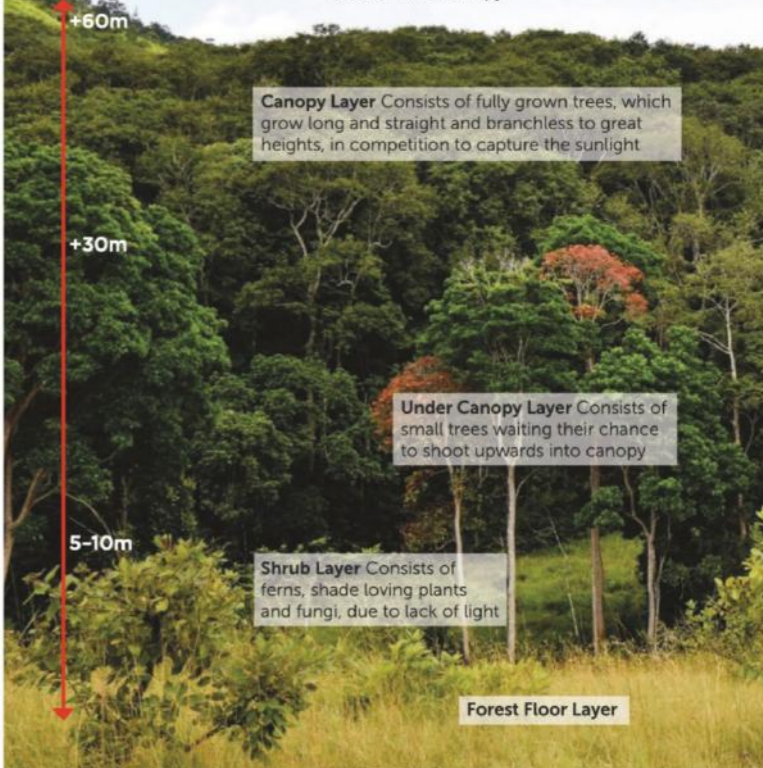
**Biomass** burns plants, trees and organic matter to heat steam to drive turbines. This method releases a lot of carbon dioxide, a greenhouse gas, into the atmosphere.

### B The layers of a rainforest

**Hydrosphere** – high humidity in the air, heavy rainfall, water on the vegetation, and rivers

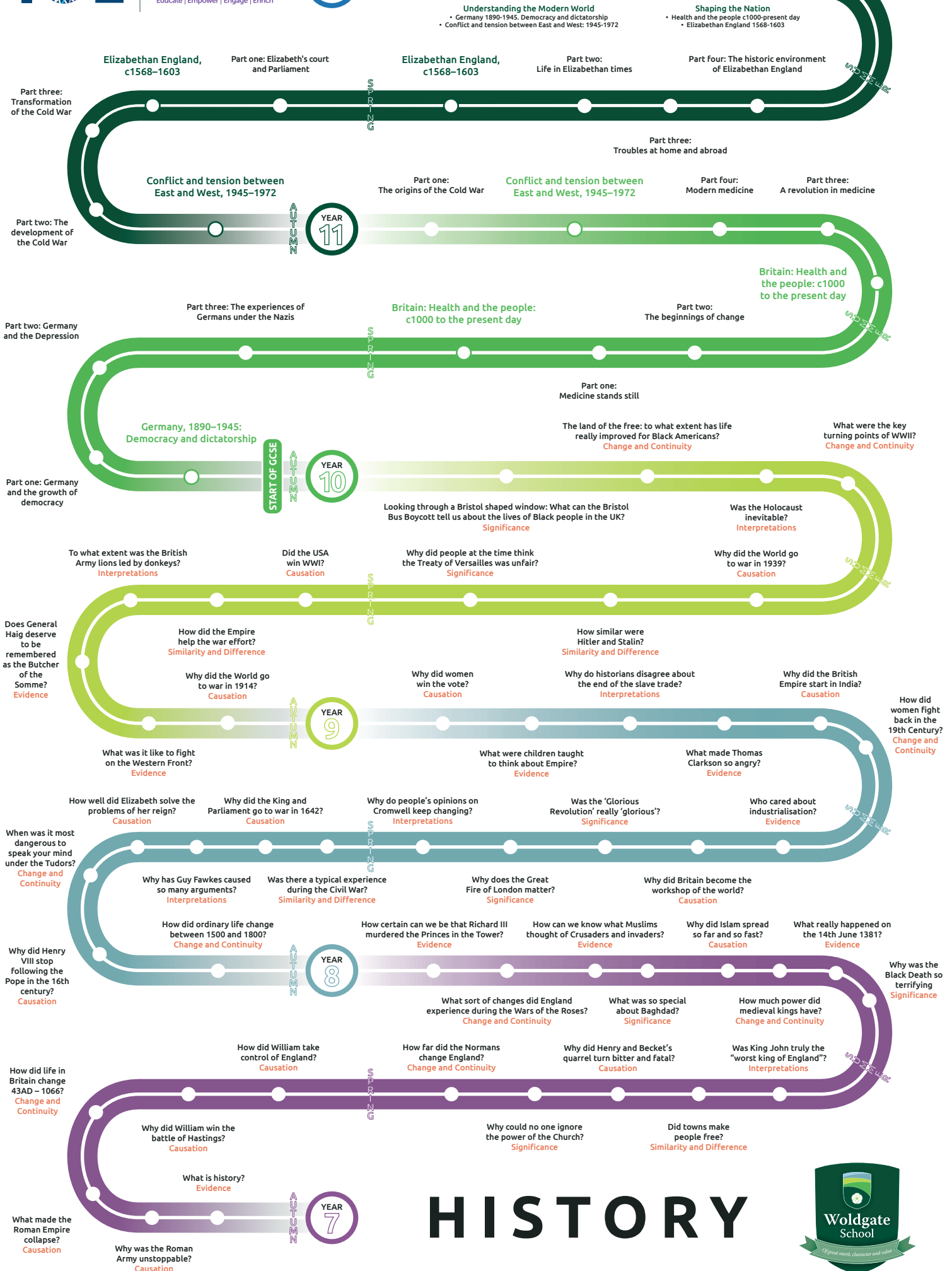
**Atmosphere** – almost daily heavy rainfall and high temperatures throughout the year, which is ideal for continual rapid plant growth

**Emergent Layer** Isolated tall trees, that rise above the canopy





**GCSE EXAMINATIONS**



**HISTORY**





# THE KING AND PARLIAMENT

## KEY WORDS

Civil War	A war fought within a country
Government	A group of people governing a country
Parliament	A body made up of elected people who run a country
Divine Right	Belief that Kings received their authority from God
Roundheads	Parliamentarians, who supported Parliament in the Civil War
Cavaliers	Royalists, who supported the King in the Civil War
Puritans	Strict Protestants
Lord Protector	Replacement for the King following the Civil War
Restoration	Reintroduction of the monarchy after the death of Cromwell

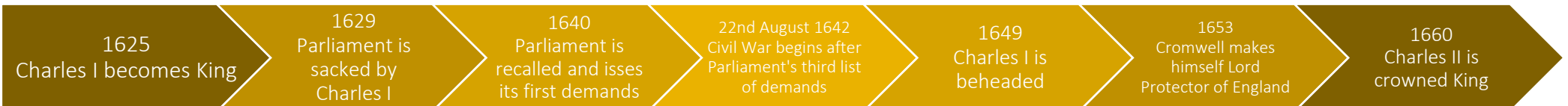
## GUNPOWDER PLOT

- \* In 1605, Catholics were accused of attempting to blow up Parliament
- \* There are two interpretations of this event:
  - \* **One** – the Catholics, led by Guy Fawkes, planted gunpowder in the cellar. However, Francis Tresham wrote a letter to warn of the plot, and it was discovered on 4<sup>th</sup> November 1605
  - \* **Two** – Robert Cecil, who hated the Catholics, framed them by encouraging them to rent a cellar which was then filled with gunpowder by Cecil's men

## EVENTS OF 1625-1642

1. Charles I married princess Henrietta Maria, a French Catholic
2. Charles sent 2 MPs to prison after Parliament tried to punish Lord Buckingham
3. Charles sacks Parliament after they try to stop him from getting money
4. Charles tried to raise money himself by asking for Ship Money. This was unpopular
5. Some of Charles' reforms of the church were seen as 'too Catholic'
6. Charles tries to take Coat and Conduct Money after riots in Scotland
7. After being recalled, Parliament wrote a list of demands, which Charles agreed to
8. A year later, they wrote more demands. Charles burst into the House of Commons with 400 soldiers and arrested 5 MPs
9. Rumours spread of a rebellion in Ireland in which 200,000 Protestants had been killed by the Catholics. Parliament took control of the army
10. In June 1642, they issued the Nineteen Propositions, which were 19 more rules. Charles had had enough, and raised his own army. The English Civil War began

## TIMELINE OF THE KING AND PARLIAMENT



# KNOWLEDGE ORGANISER

## EXPERIENCES OF THE CIVIL WAR

- \* Roundheads and Cavaliers similarities and differences:

Similarities	Differences
<ul style="list-style-type: none"> <li>* Both sides wore sashes – Cavaliers often wore red, and Roundheads often wore orange or blue</li> <li>* Both sides used similar weapons, and favoured muskets</li> <li>* People would sometimes swap sides depending on who was winning</li> </ul>	<ul style="list-style-type: none"> <li>* Roundheads were often middle-class Protestants</li> <li>* Cavaliers were often wealthy Catholics who favoured the King</li> <li>* Cavaliers fought on horses more than Roundheads</li> </ul>

## THE ENGLISH CIVIL WAR

- \* **The English Civil War 1642-1645:**
- \* **Battle of Edgehill 1642** - Even match. Roundheads withdrew but Cavaliers failed to press on and take London.
- \* **Battle of Adwalton Moor 1643** - Roundheads started well but were forced to retreat at end.
- \* **Battle of Roundaway Down 1643** - Cavalier victory: Roundheads fled.
- \* **Battle of Marston Moor 1644** - Roundhead victory: first time they beat Cavalier cavalry.
- \* **Second battle of Newbury 1644** - Draw. Royalists able to escape overnight.
- \* **Battle of Naseby 1645** - Big Roundhead victory: Charles fled for his life.

## OLIVER CROMWELL

- \* Cromwell led the army to defeat the Scottish, who were led by Charles I
- \* Charles I was executed in 1649. Parliament ruled England, and they had to be nice to the army as they still had a lot of power
- \* When Charles Stuart tried to attack England from Scotland, Cromwell defeated them at Dunbar once and for all
- \* Cromwell sided with the army and had Parliament arrested. He made himself Lord Protector of England for life. He introduced very unpopular Puritan policies
- \* When parliament voted to end Cromwell being Lord Protector, he sacked them
- \* When Cromwell died, his son was appointed Lord Protector. He resigned, and Charles II was restored to the throne

# FIRE & REVOLUTION

## KNOWLEDGE ORGANISER



### KEY WORDS

<b>Drought</b>	A lack of rain which causes a lack of water
<b>Firebreak</b>	Act of blowing up houses to stop the fire from spreading
<b>Absolute</b>	A monarchy where the King or Queen holds most of the power
<b>Constitutional</b>	A monarchy where power is shared with Parliament
<b>Bill of Rights</b>	A set of rules which William and Mary had to follow
<b>Seven Nobles</b>	The seven men who wrote to William asking him to invade
<b>Revolution</b>	A sudden or complete change in way people live, work or are governed
<b>Divine Right</b>	Belief that Kings received their authority from God

## BRITAIN AND INDUSTRIALISATION

### \* Why was Britain first to have an Industrial Revolution?

- \* The population boomed which allowed for more workers and meant there were more people wanting to buy goods
- \* Britain had a large empire which it could trade with, and import raw materials from. It had lots of ports to ship the goods into
- \* New forms of transport such as railways and canals allowed the easy transportation of goods
- \* Inventions were encouraged through the use of the patent system
- \* Britain had lots of raw materials, such as coal and iron

## BRITAIN AND ENTREPRENEURS

### \* The Spinning Frame:

- \* Richard Arkwright invented the spinning frame, which replaced the domestic system which was much slower at making cloth
- \* His invention used a waterwheel and was based in special factories, known as mills. More cloth could be made than ever before

### \* The Steam Engine:

- \* In the 1720s, Thomas Newcomen invented the first steam engine, which produced simple up and down movements, useful for mines
- \* In 1769, James Watt invented a newer version which was quicker. Matthew Boulton provided the money to continue working on his invention
- \* In 1782, William Murdoch came up with the rotary engine which was eventually used in steam trains

## GREAT FIRE OF LONDON

- \* Just after midnight on 2<sup>nd</sup> September 1666, a fire broke out at a bakery owned by Thomas Farriner in Pudding Lane, London
- \* The fire spread through the central part of London, which remained on fire for four days. Temperatures reached 1250°C
- \* **Reasons the fire spread so fast:**
  - \* London's houses, built of wood and thatch were tightly packed together, with jetties making them even closer together
  - \* London had been suffering from a drought
  - \* London's Mayor, Sir Thomas Bloodworth, would not allow a firebreak
  - \* The wind was very strong and blew the fire eastwards. It swept away embers which set fire to other places
  - \* Roads were blocked with people trying to leave and the riverfront had caught fire

## FIVE Rs OF SIGNIFICANCE

- \* **Remarkable** – it stands out from other events at the time
- \* **Remembered** – people chose to record it at the time so we have documents on it
- \* **Resonant** – it matches our experience in some way
- \* **Revealing** – it tells us a great deal about life and ideas in the past
- \* **Results in change** – events go in a different direction after it

## GLORIOUS REVOLUTION

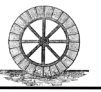
- \* King James II, who was Catholic, took the throne in 1685, at a time when tensions were still high between Protestants and Catholics
- \* In 1687, James dissolved Parliament to try and appoint one that would support him
- \* Many saw the monarchy as too powerful and wanted Parliament to have more power
- \* In 1688, seven English nobles wrote to Dutch Prince William of Orange, husband of James' daughter Mary, asking him to invade and restore Protestantism
- \* He did, and James II fled to France after the English army refused to take orders from their Catholic officers
- \* William II and Mary II became co-monarchs, and England became a constitutional monarchy. Parliament passed the Bill of Rights and became more powerful

## TIMELINE 1660-1750



# INDUSTRIALISATION

# KNOWLEDGE ORGANISER



## KEY WORDS

<b>Industrialisation</b>	Change to more industrial methods of production such as factories
<b>Reform</b>	To change something, often for the better
<b>Epidemic</b>	Widespread occurrence of an infectious disease in a community
<b>Cholera</b>	A waterborne disease, often fatal at the time
<b>Chartism</b>	Movement for political reform between c.1838 - c.1848
<b>Elections</b>	Method by which people choose their representatives
<b>Whitechapel</b>	Area of London
<b>The Five</b>	The five women murdered by 'Jack the Ripper' in Whitechapel

## CHILDREN AND FACTORIES

- \* What was life like for children in factories?
  - \* Often deformed by the work that they did, or got 'cotton lung'
  - \* Often treated cruelly and were beaten and had little access to education
  - \* They often worked long hours which had an impact on the rest of their lives
- \* What was done to try and reform factories?
  - \* **1802** – First Factory Act. Children could not work more than 12 hours a day, receive some education and sleep no more than 2 to a bed. **Largely ignored**
  - \* **1819** – Second Factory Act. Children under 9 must not work and 9-16-year olds could not work more than 12 hours. **Largely followed**
  - \* **1833** – Third Factory Act. Children aged 9-13 could not work more than 8 hours and had to have 2 hours of education a day. Children under 18 must not work at night. Factories were inspected. **Largely followed**
  - \* **1844** – Fourth Factory Act. 12-hour shifts had to include a 90-minute break, ages of children had to be verified, machinery must be fenced in and owners had to thoroughly clean every 14 months. **Largely followed**

## DOCTORS AND TOWNS

- \* As people rushed to towns for work, there weren't enough houses for everyone
- \* Slums and back-to-back housing were built. People lived in awful conditions
- \* Sewer systems couldn't cope with demand and people lived in attics and cellars
- \* Cholera first hit Britain in 1831. No one knew what caused it
- \* In 1854, John Snow made the connection between Cholera and contaminated water

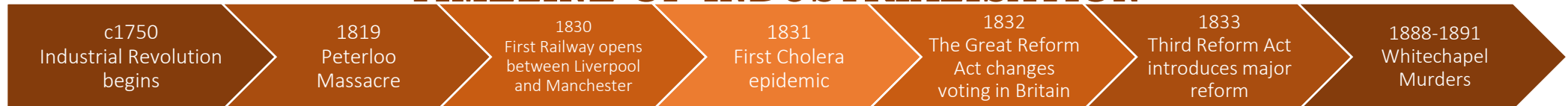
## POLITICAL & VOTING REFORM

- \* On 16<sup>th</sup> August 1814, 18 people were killed at a demonstration in Manchester for voting reform. This was known as the Peterloo Massacre
- \* People didn't have the same amount of representation. Some large towns had no MPs at all, whereas some places had a tiny population and still elected an MP
- \* **What was done to reform politics and voting?**
  - \* **The Great Reform Act (1832)** – Middle-class got the vote, rotten boroughs were abolished and large towns got MPs. But, only 813,000 of 24 million could vote.
  - \* **Chartism (1840s)** – Chartists wrote a total of 3 separate charters, and delivered them to Parliament along with petitions, to try and reform the voting system. All three were rejected and the movement ended.
  - \* **The Second Reform Act (1867)** – Gave 2.1 million men the vote. These people were mostly upper working class
  - \* **The Third Reform Act (1884)** – Gave working-class men in the countryside the vote. A total of 5.7 million men now had the vote

## WOMEN IN THE 19<sup>TH</sup> CENTURY

- \* 27% worked, mostly as servants or in factories
- \* Women could not afford to eat well so their bodies were smaller and less developed. This, along with a lack of pain relief, made childbirth dangerous
- \* The ideal role of a woman was as the 'angel of the house', and domestic violence became a serious concern in the later 19<sup>th</sup> Century
- \* Once a woman married, she had no rights to her money or property. They could not vote and had no legal right to their children
- \* Between 1888 and 1891, 5 women were murdered in Whitechapel, London.
- \* Whitechapel was perfect for crime as it was overcrowded, the police were scared to go there, it had lots of allies and yards and had a thick smog
- \* **How did women fight back?**
  - \* Matchstick Girls Strike – women who worked in matchstick factories campaigned for better working conditions.
  - \* Kensington Society – Drafted the 'Ladies' Petition' to demand the vote for female householders
  - \* Caroline Norton – campaigned for Marriage Rights for women to be able to divorce their husbands

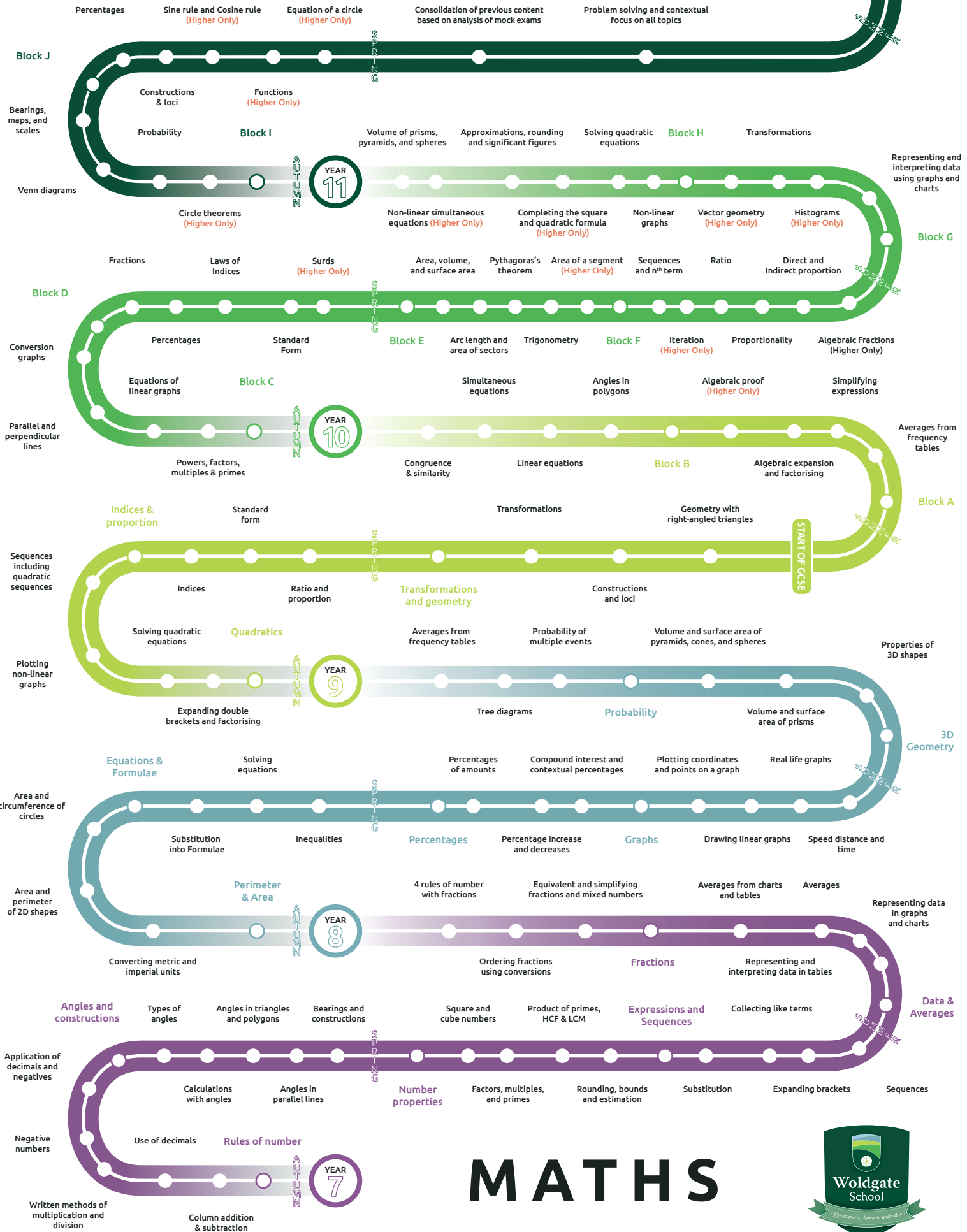
## TIMELINE OF INDUSTRIALISATION





**GCSE EXAMINATIONS**

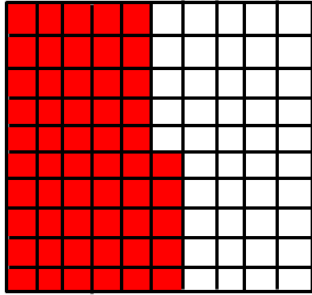
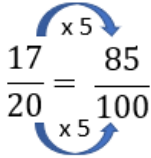
3 papers – 1 non-calculator and 2 calculator papers



**MATHS**





Topic/Skill	Definition/Tips	Example
Percent	A proportion out of 100.	55% means 55 out of 100 
Converting percentages to fractions	The percentage is the numerator and 100 is the denominator. Simplify where possible.	$82\% = \frac{82}{100} = \frac{41}{50}$
Converting fractions to percentages	<i>Non-calculator:</i> Convert the fraction into an equivalent fraction with 100 in the denominator, then the numerator is your percentage.  <i>Calculator:</i> $\frac{\text{numerator}}{\text{denominator}} \times 100$	$\frac{17}{20} = \frac{85}{100} = 85\%$   $\frac{11}{35} = \frac{11}{35} \times 100 = 31.4\% (1d.p)$
Finding percentages of amounts ( <i>non-calculator</i> )	You can find <ul style="list-style-type: none"> <li>• 50% by dividing the original by 2</li> <li>• 10% by dividing the original by 10</li> <li>• 1% by dividing the original by 100</li> </ul> Then you can use multiples of these to work out any percentage.  It's also useful to know you can swap around the amount and the percentage, this sometimes makes it easier to work out.	Find 32% of 70: 10% = $70 \div 10 = 7$ 30% = $7 \times 3 = 21$ 1% = $70 \div 100 = 0.7$ 2% = 1.4 32% = $30\% + 2\% = 21 + 1.4 = 22.4$  Find 28% of 50: 28% of 50 = 50% of 28 = 14
Multiplier	The decimal equivalent of a percentage.  You can calculate a multiplier by dividing the overall percentage you need by 100.	The multiplier for finding 12% is 0.12 The multiplier for increasing by 12% is 1.12, because overall you need 112%. The multiplier for decreasing by 12% is 0.88, because overall you need 88%.
Finding percentages of amounts ( <i>calculator</i> )	Multiply your original amount by the multiplier.	Find 32% of 70 $70 \times 0.32 = 22.4$



<p>Increasing or decreasing by a percentage</p>	<p>Non-calculator: Work out the <b>increase</b> then <b>add</b> it on to the original, or <b>subtract</b> it from the original for a <b>decrease</b>.</p> <p>Calculator: Multiply by the multiplier</p>	<p><i>Increase 70 by 32%</i>  <math>32\% \text{ of } 70 = 22.4</math>              So, <math>32\% \text{ increase of } 70 = 70 + 22.4 = 92.4</math></p> <p><i>Increase 70 by 32%:</i>  <math>70 \times 1.32 = 92.4</math>  <i>Decrease 70 by 32%</i>  <math>70 \times 0.68 = 47.6</math></p>
<p>Successive percentages</p>	<p>If a percentage change is applied over and over again, you can multiply the original by the multiplier to the power of the number of times the percentage change is applied.</p> <p>For example, <b>compound interest</b> over <math>n</math> years:  <i>Original amount <math>\times</math> multiplier<sup>n</sup></i></p>	<p>Jane invests £6000 in a bank account with compound interest of 2.8%. Calculate how much interest she earns over 5 years.              At the end of the 5<sup>th</sup> year her investment is worth  <math>6000 \times 1.028^5 = \text{£}6888.38</math>              Total amount of interest earned =  <math>6888.38 - 6000 = \text{£}888.38</math></p>
<p>Reverse percentages</p>	<p>Reverse percentages are where you know the amount something is worth <b>after</b> a percentage change but need to work out the <b>original</b> amount.</p> <p>Start by working out the total percentage something is NOW worth.</p> <p><i>Non-calculator:</i> break this down into 10%, or 25%, etc. and then build it up to work out 100%</p> <p><i>Calculator:</i> Divide the new amount by the multiplier that would have been used</p> <div style="text-align: center;"> <pre> graph LR     OP[Original Price ?] -- "x 0.85" --&gt; NP[New Price £102]     NP -- "÷ 0.85" --&gt; OP             </pre> </div>	<p>A t-shirt in a 20% off sale is now worth £12.80. What was its price before the sale?  <math>80\% = \text{£}12.80</math>  <math>20\% = \text{£}12.80 \div 4 = \text{£}3.20</math>  <math>100\% = \text{£}16.00</math></p> <p>The price of a ticket costs <b>£30</b> inclusive of 12% tax. What is the pre-tax cost of the ticket?</p> <p style="text-align: center;"><math>100\% + 12\% = 112\% = 1.12</math></p> <div style="text-align: center;"> <pre> graph LR     OP[Original Price ?] -- "x 1.12" --&gt; NP[New Price £30]     NP -- "÷ 1.12" --&gt; OP             </pre> <p style="text-align: center;">Original price  <math>= \text{£}30 \div 1.12 = \text{£}26.79</math></p> </div>
<p>Simple Interest</p>	<p>This is where interest is calculated as a percent of the original loan.</p> <p><i>(Simple interest is rarely used in the real world)</i></p>	<p>Jane invests £6000 in a bank account with simple interest of 3%. Calculate how much interest she earns over 5 years.  <math>(6000 \times 0.03) \times 5 = \text{£}900</math></p>

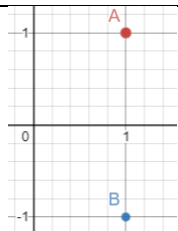
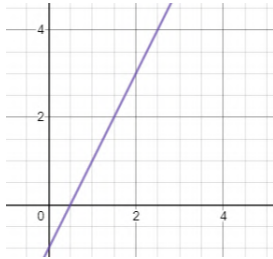

## Year 8 – Spring 1, Percentages



<p>Finding the whole when given part</p>	<p><i>Non-calculator:</i> break down the percentage you have (into 10%, or 25%, etc.) and then build it up to work out 100%</p> <p><i>Calculator:</i> Divide by the multiplier for the percentage you have.</p>	<p>Jenny scored 75% on an exam, she got 24 marks. What was the exam out of?</p> <p><i>Non-calculator:</i>  <math>75\% = 24</math> marks  <math>25\% = 24 \div 3 = 8</math>  <math>100\% = 25\% \times 4 = 8 \times 4 = 32</math> marks</p> <p><i>Calculator:</i>  <math>24 \div 0.75 = 32</math> marks</p>
<p>Writing quantities as a percentage</p>	<p>Write it as a fraction first, where the <b>denominator is the total</b>. Then convert your fraction into a percentage</p>	<p>A football club has 27 male members and 18 female members. What percentage are female.</p> $\frac{18}{45} = \frac{2}{5} = \frac{4}{10} = \frac{40}{100} = 40\%$
<p>Calculating a percentage change</p>	$\frac{\text{Difference}}{\text{Original}} \times 100\%$ <p>If you do not have a calculator, try to convert your fraction into an equivalent fraction with a denominator of 100</p>	<p>A games console is bought for £200 and sold for £250.</p> $\% \text{ change} = \frac{50}{200} \times 100 = 25\%$ <p>OR <math>\frac{50}{200} = \frac{25}{100} = 25\%</math></p>

# Year 8 – Spring 2, Graphs Knowledge Organiser

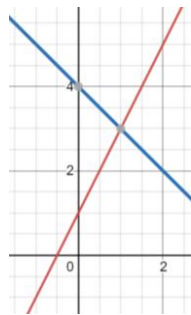
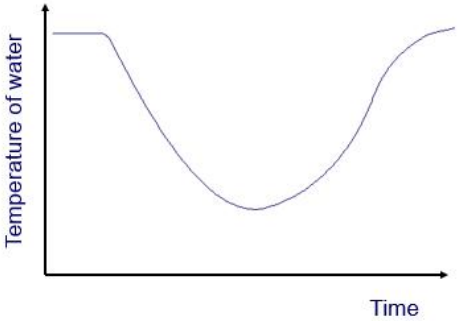
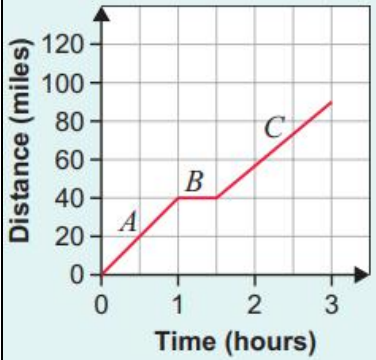
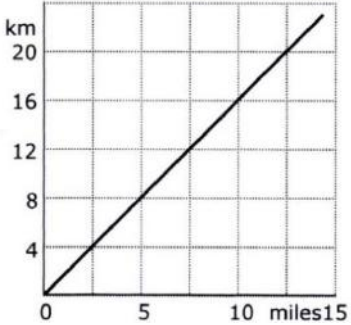


Topic/Skill	Definition/Tips	Example																
Co-ordinates	Coordinates are written (x,y) . “Along the corridor and up the stairs”.	 A: ( 1 , 1 )    B: ( 1 , -1 )																
Midpoint of a Line	The point that is exactly half-way in between two other points. You can calculate the midpoint by adding the x coordinates and divide by 2, then adding the y coordinates and divide by 2.	Find the midpoint between (2 , 1) and (6 , 9)  $\frac{2+6}{2} = 4$ and $\frac{1+9}{2} = 5$  So, the midpoint is (4 , 5)																
Straight Line Graph	The standard equation of a linear graph is  $y = mx + c$ where <b>m</b> is the gradient and <b>c</b> is the <b>y-intercept</b> .  The <b>equation</b> can look different; if <b>m</b> or <b>c</b> are zero, or if the equation has been <b>rearranged</b>	 $y = 2x - 1$  Different examples: $x = y$ $y = 4$ $x = -2$ $y + x = 10$ $2y - 4x = 12$																
Plotting a Linear Graph	Method : <b>Table of Values</b> Construct a table of values to calculate coordinates.	Find some coordinates of the line $y = x + 3$ <table border="1" data-bbox="949 1451 1401 1563"> <tr> <td><b>x</b></td> <td>-3</td> <td>-2</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td><b>y= x +3</b></td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> </table>	<b>x</b>	-3	-2	-1	0	1	2	3	<b>y= x +3</b>	0	1	2	3	4	5	6
<b>x</b>	-3	-2	-1	0	1	2	3											
<b>y= x +3</b>	0	1	2	3	4	5	6											
Parallel Lines	Parallel lines have the same gradient  	The lines $y = 4x + 2$ and $y = 4x - 1$ are parallel because they have the same gradient (4)																
Perpendicular Lines	Perpendicular lines meet at 90 °. Their gradients will be the negative reciprocal of each other.  The product of two perpendicular gradients is always -1.	The lines $y = 2x + 2$ and $y = -\frac{1}{2}x - 1$ are perpendicular because their gradients are the negative reciprocal of each other.  Also $2 \times -\frac{1}{2} = -1$																



# Year 8 – Spring 2, Graphs Knowledge Organiser



<p><b>Graphical Simultaneous Equations</b></p>	<p>To solve two simultaneous equations using a graphical method: plot them both and look up the coordinate where the lines intersect.</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p><math>y = 4 - x</math> and <math>y = 2x + 1</math></p> <p>Solution is (1,3) Or <math>x = 1, y = 3</math></p> </div> </div>
<p><b>Real Life Graphs</b></p>	<p>Graphs that are used to model a real-life situation.</p> <p>The actual meaning of the values depends on the labels and units on each axis.</p> <p>The <b>gradient</b> might have a contextual meaning. The <b>y-intercept</b> might have a contextual meaning. The <b>area</b> under the graph might have a contextual meaning.</p>	<div style="display: flex; align-items: center;">  </div> <p>This graph shows how the temperature of the water in a pan changes when frozen peas are added. The gradient shows the rate of change of the temperature, the y-intercept shows the initial temperature of the pan.</p>
<p><b>Distance Time Graphs</b></p>	<p>You can find the <b>speed</b> from the <b>gradient</b> of the line (Distance ÷ Time) The steeper the line, the quicker the speed.</p> <p>A <b>horizontal</b> line (like part <b>B</b> on the example) means the object is not moving (<b>stationary</b>).</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>In Part A of the journey, the distance travelled was 40 miles and the time was 1 hour.</p> <p style="text-align: center;"><math>40 \div 1 = 40</math></p> <p>The speed was 40mph.</p> </div> </div>
<p><b>Conversion Graphs</b></p>	<p>A line graph to <b>convert one unit to another</b>.</p> <p>Can be used to convert units (eg. miles and kilometres) or currencies (\$ and £)</p> <p>Find the value you know on one axis, read up/across to the conversion line and read the equivalent value from the other axis.</p>	<p style="text-align: center;">Conversion graph miles ↔ kilometres</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;"><math>8 \text{ km} = 5 \text{ miles}</math></p>

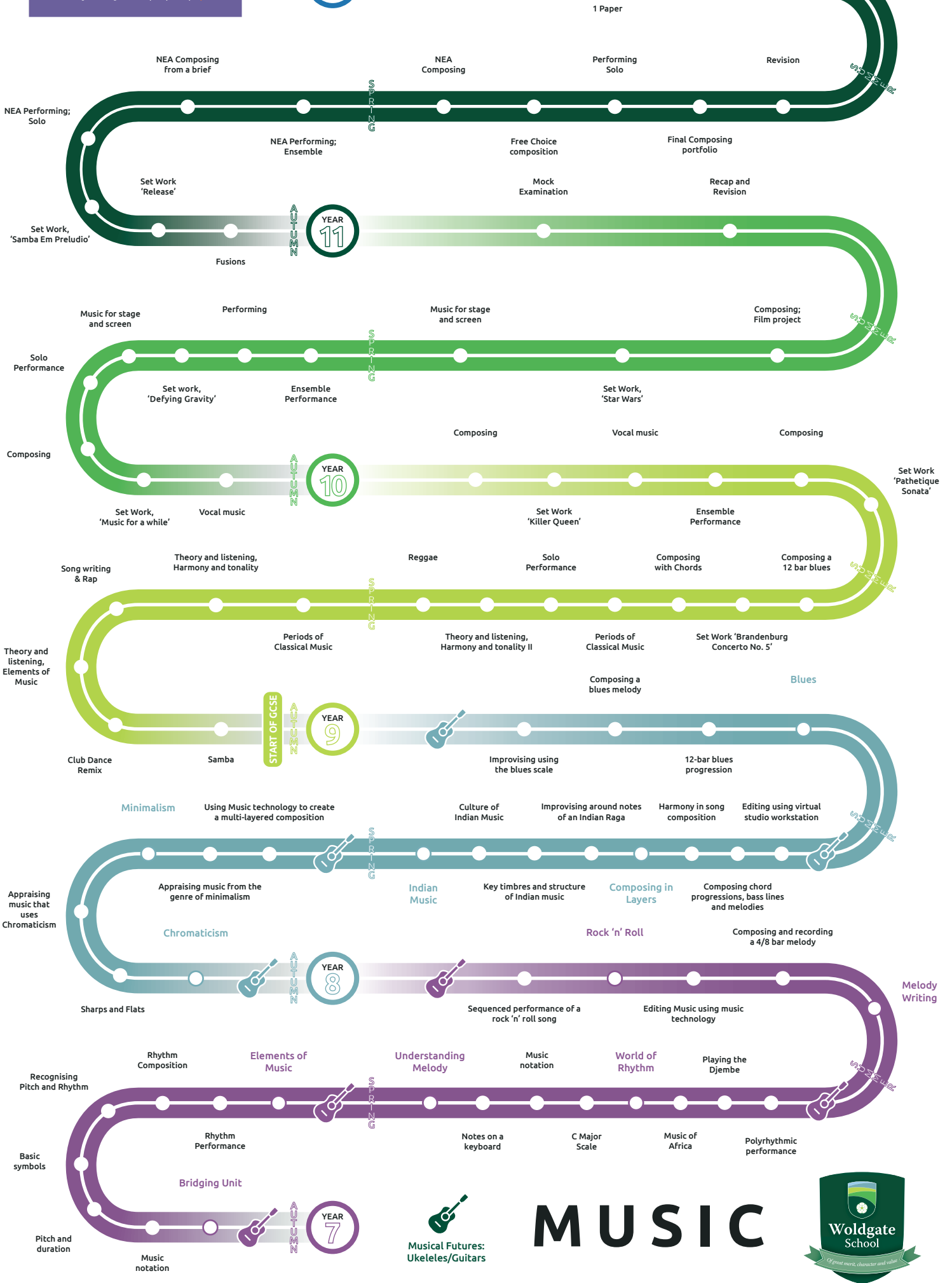
## Year 8 – Spring 2, Graphs Knowledge Organiser



<p>Speed, Distance, Time</p>	<p><b>Speed = Distance ÷ Time</b>  <b>Distance = Speed x Time</b>  <b>Time = Distance ÷ Speed</b></p> <div style="text-align: center;"> </div> <p>Remember the correct units.</p>	<p>Speed = 4mph (4 miles every hour)                  Time = 2 hours</p> <p>Find the Distance.</p> $D = S \times T = 4 \times 2 = 8 \text{ miles}$
<p>Inequality Graphs</p>	<p>Plot the line as you would an equation and then shade the relevant side.                  Dotted line for <math>&lt;</math> or <math>&gt;</math>                  Solid line for <math>\leq</math> or <math>\geq</math></p>	<div style="text-align: center;"> </div> <p><math>y &lt; x + 2</math></p>



**GCSE EXAMINATIONS**



# MUSIC KNOWLEDGE ORGANISER

## KS3 – YEAR 8 Minimalism

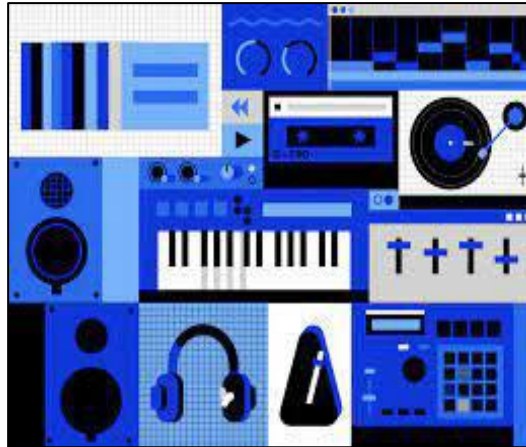
# Tubular Bells

composed by **Mike Oldfield**



### Minimalism

Minimalism is a style of music that uses a limited number of basic ideas. These ideas are then manipulated using techniques to produce complex sounding pieces. **Minimalism** is often used in **films** to create **underscore** ('under' the action or dialogue) The music helps to set the mood or match the emotions of the characters.



**Music Technology**  
Most minimalist pieces use **synthetic instruments (synthesizers)** but even if they use **acoustic instruments** they usually rely on the use of technology to **record** them and **edit** them together. This is due to the **repetitive** nature of the music and the complexity involved from **layering multiple ostinati**.

### Minimalist Composers

Mike Oldfield   Steve Reich   Terry Riley   Phillip Glass   John Adams

### Minimalist Techniques

#### REPETITION

Repeating of musical ideas

#### OSTINATO

A repeated pattern or loop.

#### LAYERING

The technique of gradually thickening the **texture** by adding different patterns in layers

#### DRONE

A long (**sustained**) note (usually in the lower pitch range).

#### METAMORPHOSIS

A technique of taking a **melody** and changing its **pitch** very gradually perhaps a note at a time.

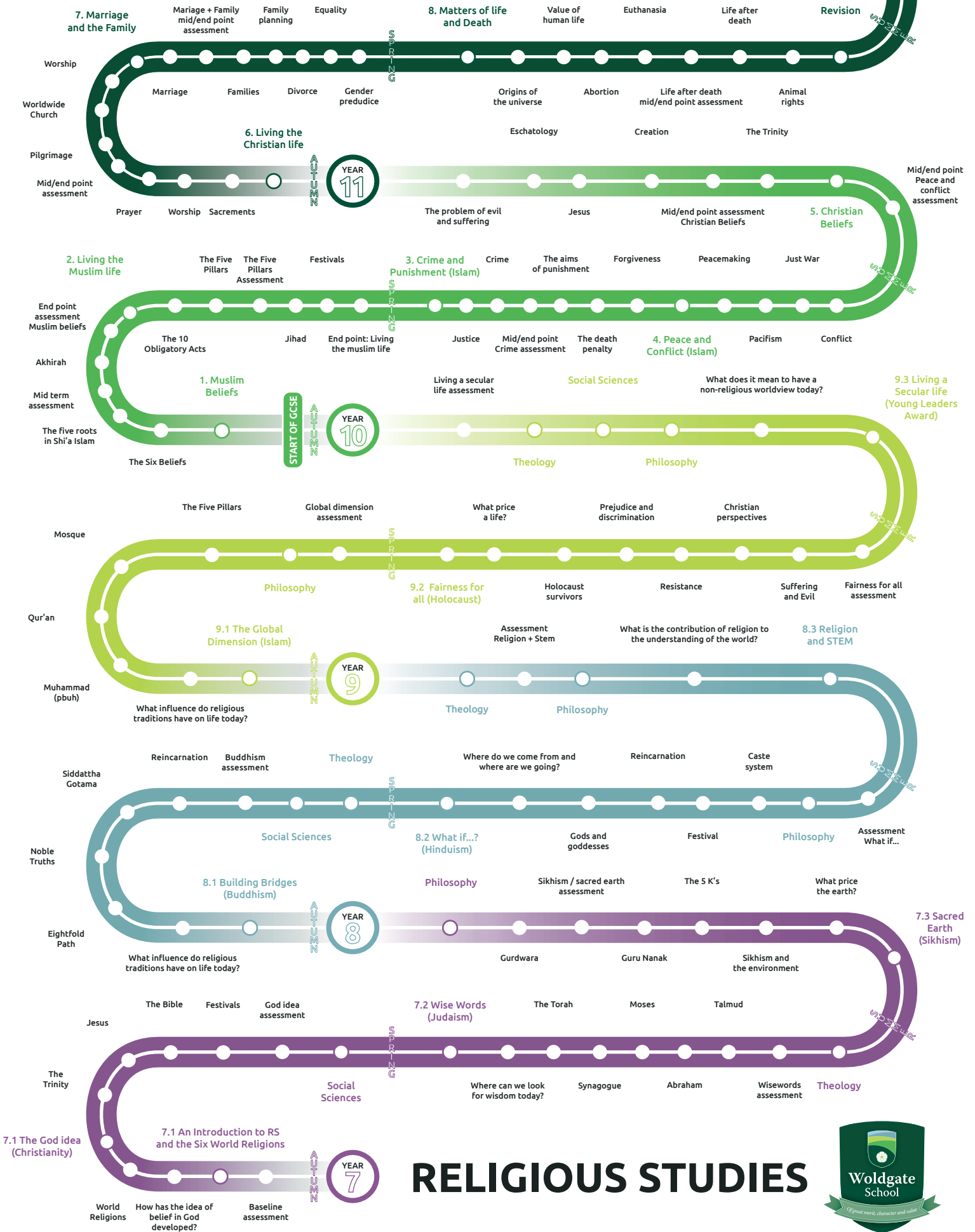
#### ADDITIVE AND SUBTRACTIVE MELODY

Adding or taking away a note in an idea each time it is repeated.

M	A	D	T	S	H	I	R	T
<b>Melody</b>	<b>Articulation</b>	<b>Dynamics</b>	<b>Texture</b>	<b>Structure</b>	<b>Harmony</b>	<b>Instruments</b>	<b>Rhythm</b>	<b>Tempo</b>
<i>The tune</i>	<i>How notes are played</i>	<i>The volume of music</i>	<i>Layers of sound</i>	<i>How music is organised into sections</i>	<i>Chords used</i>	<i>Types of instruments/sounds used</i>	<i>The use of different durations of notes</i>	<i>The speed of music</i>



**GCSE EXAMINATIONS**



**RELIGIOUS STUDIES**



# Fairness for all? Human Rights

## KEY WORDS

<b>Human Rights</b>	The basic entitlements that everyone in the world should have to be able to live.
<b>Universal Declaration of Human Rights</b>	30 Human Rights that everyone should have. Put in place by the United Nations in 1948.
<b>Persecution</b>	Persistently cruel treatment due to race, political or religious beliefs.
<b>Nuremburg Laws</b>	Laws passed by the Nazis in 1935 that made a legal distinction between a German and a Jew. Allowed the Nazis to persecute Jews.
<b>Holocaust</b>	The systematic, state sponsored persecution and murder of six million Jews by the Nazis between 1933-1945.
<b>Yad Vashem</b>	The world's Holocaust Remembrance Centre in Jerusalem.
<b>Righteous Among the Nations</b>	Award given by Yad Vashem to anyone who risked their own life to help victims of the Holocaust
<b>Genocide</b>	The planned destruction of a group of people.
<b>Justice</b>	To make something right.
<b>Refugee</b>	A person forced to leave their country to escape persecution

### WHAT ARE HUMAN RIGHTS?

**Civil Rights** (Right to life, freedom from torture and slavery)

**Legal Rights** (To be presumed innocent, right to a fair trial)

**Social Rights** (Healthcare, education)

**Economic Rights** (To own a house, have a job)

**Political Rights** (To vote, protest, express beliefs)

**Cultural Rights** (To take part in the cultural life of the community)

**Why are Human Rights important to religions?**

Most religions believe in the 'Golden Rule' - treat others as you would like to be treated. Religions believe that everyone is equal.

# KNOWLEDGE ORGANISER

**What happened to Human Rights during the Holocaust?** Soon after coming to power in 1933, the Nazis began to persecute Jewish people:

1933 - Jewish teachers, lawyers and doctors were sacked

1935 - Jews could no longer marry Germans

1938 - Kristallnacht, Jewish businesses and synagogues attacked

1942 - Jewish children could not go to school

**How did the Christian world react to the Holocaust?**

**Evian Conference 1938** - 32 countries met but most refused to take in more Jewish refugees

**Catholic Church** - Signed a Concordat with Nazis - agreed to keep out of each other's way.

**Individuals** became rescuers - Dietrich Bonhoeffer, Irena Sendler.

**Why is remembrance important to Holocaust survivors?**

**Yad Vashem and Righteous Among Nations** - Preserving documents and recording testimonies to help future generations to remember.

**Elie Wiesel** - Holocaust survivor 'Whoever listens to a witness, becomes a witness'

**Has the world learned from the Holocaust?**

**More recent genocide:**

Rwandan Genocide, 1994 - 500,000 members of the Tutsi minority group murdered

Srebrenica Genocide, July 1995 - 8000 Bosnian Muslim men and boys killed

**Are Human Rights being met now?**

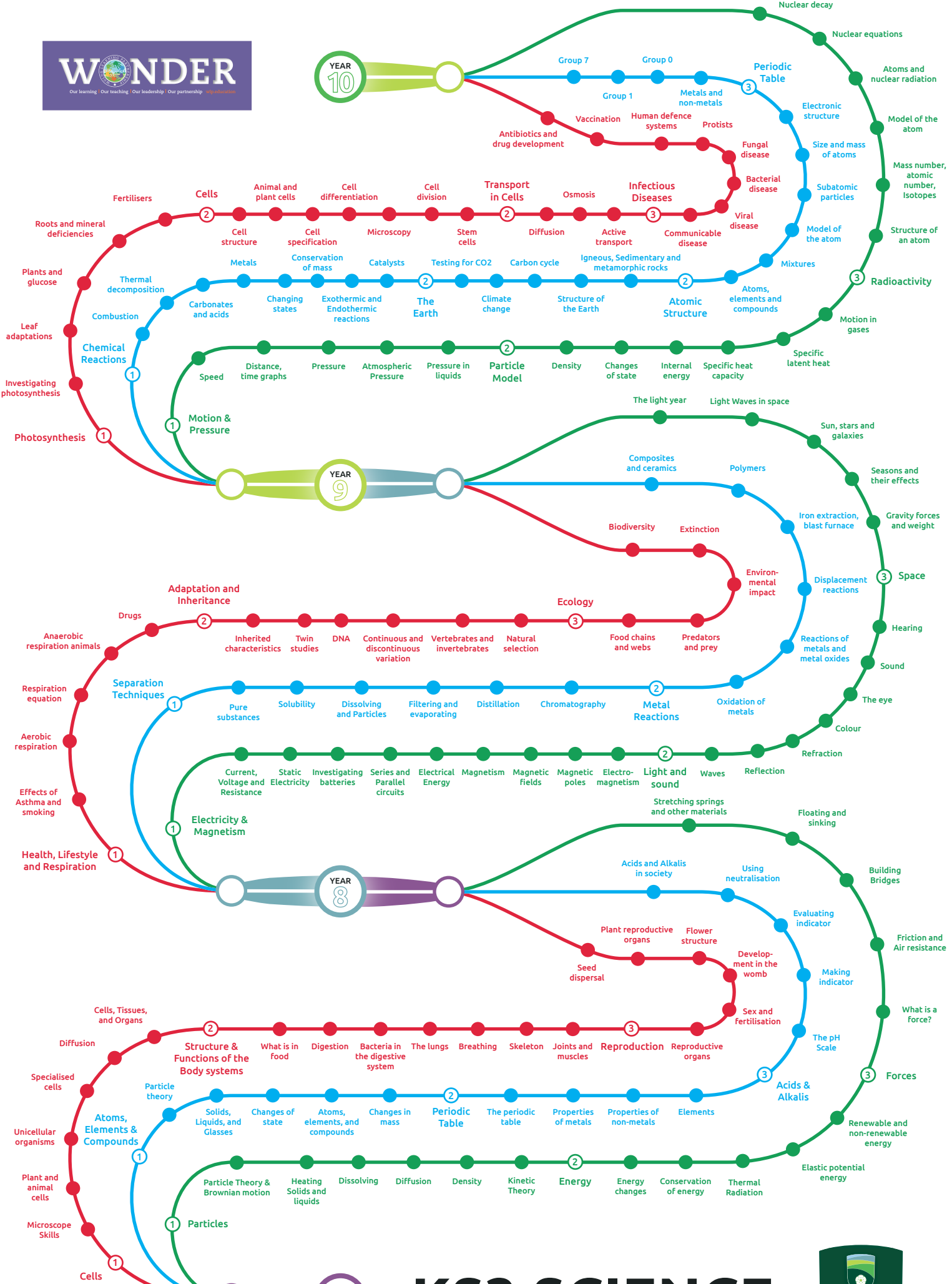
Black Lives Matter, Me Too, Food Poverty, Refugees - work of Amnesty International and Christian Aid.

YEAR 10

YEAR 9

YEAR 8

YEAR 7



Scientific Skills

# KS3 SCIENCE

■ Biology ■ Chemistry ■ Physics

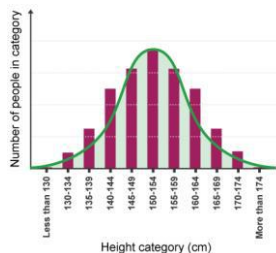


# DNA & Inheritance

Keyword	Definition
<b>Nucleus</b>	Controls what happens inside the cell. Chromosomes are structures found in the nucleus of most cells.
<b>DNA</b>	Deoxyribonucleic Acid. The material inside the nucleus of cells, carrying the genetic information of a living being.
<b>Double Helix</b>	The shape of DNA molecule with two strands twisted together in a spiral.
<b>Base Pair</b>	The pair of nitrogenous bases that connects the complementary strands of DNA.
<b>Bond</b>	The chemical link that holds molecules together.
<b>Gene</b>	The basic unit of genetic material inherited from our parents. A gene is a section of DNA which controls part of a cells chemistry.
<b>Heredity</b>	Genetic information that determines an organisms characteristics, passed on from one generation to another. To do with passing genes to an offspring from its parent or parents.
<b>Variation</b>	Difference between individuals.
<b>Continuous Variation</b>	Variation that shows a wide range of intermediate values between two extremes. They can be measured. E.g. Hand Span
<b>Discontinuous Variation</b>	Differences between individuals in a characteristic that can only be put into different categories E.g. Eye colour
<b>Environmental Variation</b>	Differences between individuals of a species due to factors in their surroundings.

## Continuous Variation

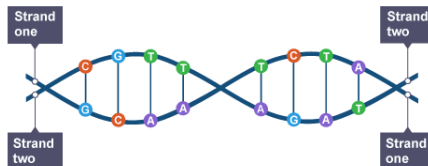
Human height is an example. It ranges from the smallest person on Earth to the tallest. Continuous variation shows characteristics that change gradually over time.



## DNA

DNA is found in the nuclei of cells and organized into chromosomes. This genetic information is passed from one generation to the next. It is called heredity and why we resemble our parents. The genetic information itself is contained in a complex molecule called DNA.

DNA molecules contain two strands. The strands are twisted around each other to form a double helix. These strands are held together by bonds between base pairs.



A DNA molecule showing its base pairs, G-C and A-T

## Chromosomes and Genes

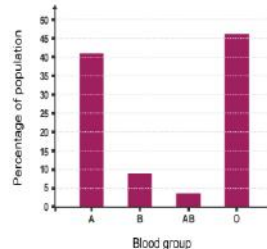
DNA molecules are so long and thin, it is coiled into structures called chromosomes. The chromosomes are found in the nucleus of each cell.

Human body cells each contain 23 pairs of chromosomes, half of which are from each parent. Human gametes (eggs and sperm) each contain 23 chromosomes. When an egg is fertilized by a sperm, it becomes a cell with 23 pairs of chromosomes. This is why children resemble both their parents – half of their chromosomes and DNA come from their mother, and half from their father.

A gene is a section of DNA that is responsible for characteristics such as eye colour. Humans have around 20,000 genes. One copy of all your chromosomes is called your genome.

## Discontinuous Variation

A characteristic of any species with only a limited number of possible values. Eye colour and blood group are examples.



## Further Reading:

<https://www.bbc.co.uk/bitesize/guides/zw9jq6f/revision/1>  
<https://www.bbc.co.uk/bitesize/guides/zn7thyc/revision/1>  
<https://www.bbc.co.uk/bitesize/guides/z9gk87h/revision/1>

## Inherited Variation

Variation in characteristics that is a result of genetic information from parents.

Examples include:

- Eye colour
- Hair colour
- Lobed or lobeless ears
- Ability to roll your tongue.



## Environmental Variation

Characteristics of animal and plant species can be affected by factors such as climate, diet, accidents, culture and lifestyle.

If you eat too much food then you will become heavier.

Variation caused by the surroundings is called environmental variation. Examples include your language and religion.



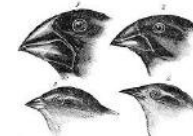
## Evolution

Change in the inherited characteristics of a population over time through a process of natural selection, which may result in the formation of a new species.

The theory of evolution by natural selection states that all species of living things have evolved from simple life forms that first developed more than three billion years ago.

Natural selection of variants that give rise to phenotypes best suited to their environment.

- Variation (mutation)
- Adaptation
- Survival & Reproduction



## Extinction

The permanent loss of all the members of a species

### Reasons for extinction:

- Introduction of a NEW disease
- Introduction of a NEW competitor
- Introduction of a NEW predator / overhunting
- Lack of food / prey
- Environmental change (temp., rainfall, loss of habitat etc.)
- Natural disaster





# Elements, Compounds, Mixtures

Keyword	Definition
<b>Periodic Table</b>	A table of all the known elements in order of their atomic number.
<b>Group</b>	Vertical columns on the periodic table
<b>Period</b>	Horizontal rows on the periodic table
<b>Atom</b>	The smallest piece of an element.
<b>Element</b>	A substance containing only one type of atom.
<b>Compound</b>	Two or more different elements which are chemically joined together.
<b>Mixture</b>	Two or more different elements or compounds which are not chemically joined together.
<b>Chemical Reaction</b>	A process in which one or more substances are changed into others, by their atoms being rearranged. Also known as irreversible reactions.
<b>Physical Reaction</b>	A process in which the physical properties are changed, but no new substances are made. Also known as reversible reactions.
<b>Reactant</b>	A substance that reacts together with another substance to form products during a chemical reaction.
<b>Product</b>	A substance formed in a chemical reaction.
<b>Conservation of Mass</b>	The total mass of the products in a chemical reaction will be the same as the total mass of the reactant.

The Periodic Table

Legend: ■ Metals ■ Non-metals

Metals	Non-Metals
Shiny in colour, solids at room temperature (except mercury), high density, strong, malleable, good conductor of heat and electricity.	Dull in colour, can be solids, liquids or gases at room temperature, low density, brittle, poor conductors of heat and electricity.


**Atoms, Elements, Compounds & Mixtures**


This models an element. There is only one type of atom.

This models a compound. There are two different elements chemically combined together.

This models a mixture. There are two or more different elements which are not chemically combined.

**Chemical & Physical Reaction**

**Chemical changes** happen when chemical reactions occur. They involve the formation of new chemical elements or compounds.  
E.g. Iron will react with oxygen to form Iron Oxide (rust). 

**Physical changes** do not lead to new chemical substances forming. In a physical change, a substance simply changes physical state. E.g. A solid to a liquid. 

**Chemical Reactions & Equations**  
The changes in a chemical reaction can be modelled using equations. In general we write:

**Reactants → Product**

The reactants are shown to the left of the arrow, and the products are shown to the right of the arrow. The arrow tells us a chemical reaction has taken place.

E.g.  
Iron + Oxygen → Iron Oxide

The Iron and oxygen react together (reactants) to produce Iron Oxide (product).

**Naming Compounds**  
Metal + Non-Metal (which contain two elements)

- The **metal** always goes first.
- The ending of the **non-metal** changes to 'ide'.

E.g.  
Copper + Oxygen → Copper Oxide  
Lithium + Fluorine → Lithium Fluoride

To name compounds which have a metal, non-metal and oxygen (three or more elements)

- The **metal** always goes first.
- The ending of the **non-metal** changes to 'ate'.

E.g.  
Copper, Sulfur, Oxygen  
Copper Sulfate

**Conservation of Mass**  
No atoms are created or destroyed in a chemical reaction. Instead, they just join together in a different way than they were before the reaction, and form products. This means that the total mass of the products in a chemical reaction will be the same as the total mass of the reactants.

$$\text{Copper} + \text{Oxygen} \rightarrow \text{Copper Oxide}$$

$$10g \quad 0.5g \quad 10.5g$$

**Balancing Equations**  
A balanced equation gives more information about a chemical reaction because it gives the symbols and formulae of the substances involved.

$$\text{Cu} + \text{O}_2 \rightarrow \text{CuO}$$

The above equation is not balanced because there is one copper atom on both sides of the arrow, but two oxygen atoms on the left hand side, and only one on the right.

You need to adjust the number of units of some substances until you have equal numbers of atoms on both sides of the arrow. You cannot change the formulae of a substance (you can't change the small number).

$$2\text{Cu} + \text{O}_2 \rightarrow 2\text{CuO}$$

**Further Reading:**

<https://www.bbc.co.uk/bitesize/guides/zt2hpy4/revision/1>

<https://www.bbc.co.uk/bitesize/guides/z84wixs/revision/1>

# Light & Sound

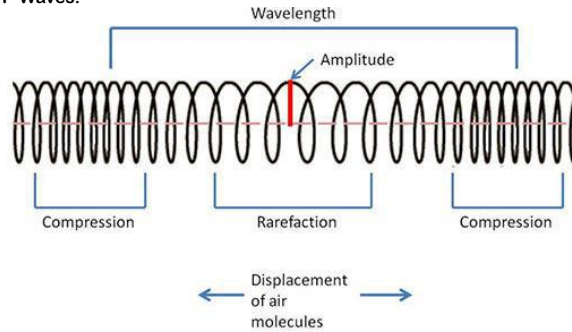
Keyword	Definition
<b>Angle of Incidence</b>	Angle between the normal and incident ray.
<b>Angle of reflection</b>	The angle between the reflected ray and the normal.
<b>Diffuse Scattering</b>	When light is reflected off a surface in all directions.
<b>Dispersion</b>	Spreading out of the different wavelengths of light, caused by refraction of light as it passes through a prism.
<b>Frequency</b>	The number of waves produced each second. The unit of frequency is hertz (Hz).
<b>Amplitude</b>	The maximum height of a wave from the middle of the wave to its peak or trough.
<b>Wavelength</b>	The length of a single wave, measured from one wave peak to the next.
<b>Pitch</b>	The frequency of a sound. Sounds with a high pitch have a high frequency.
<b>Incident Ray</b>	Light ray moving towards a surface or boundary.
<b>Reflected Ray</b>	Light ray leaving a surface or boundary.
<b>Law of reflection</b>	In reflection at a surface, the angle of incidence equals the angle of reflection.
<b>Spectrum</b>	A series of similar waves arranged in order of wavelength or frequency.
<b>Echo</b>	A sound caused by the reflection of a sound wave from a smooth surface back to the listener.

## Further Reading:

<https://www.bbc.com/bitesize/guides/zq7thyc/revision/1>  
<https://www.bbc.com/bitesize/guides/z8d2mp3/revision/1>

## Longitudinal Waves

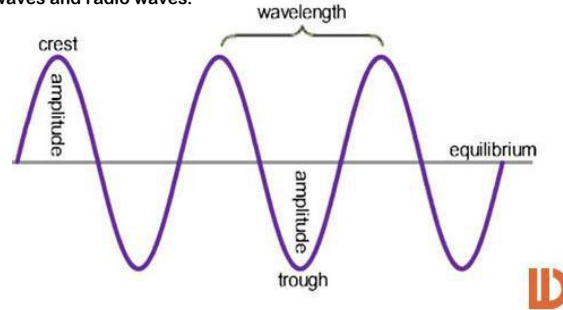
In longitudinal waves, the vibrations are parallel to the direction of wave travel. Examples are: Sound Waves, Ultrasound Waves, Seismic P-Waves.



## Transverse Waves

In transverse waves, the vibrations are at right angles to the direction of wave travel.

Examples include: Ripples on water, vibrations on a guitar string and a Mexican Wave. Electromagnetic waves such as light waves, micro waves and radio waves.



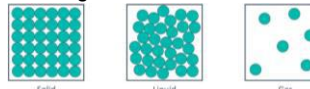
## Speed of Light

300,000km/s

## Speed of Sound (air)

343m/s

Light can travel through a vacuum but sound cannot. Sound needs a medium to travel through either a solid, liquid or gas. Sound travels fastest in a solid because the particles are closer together.



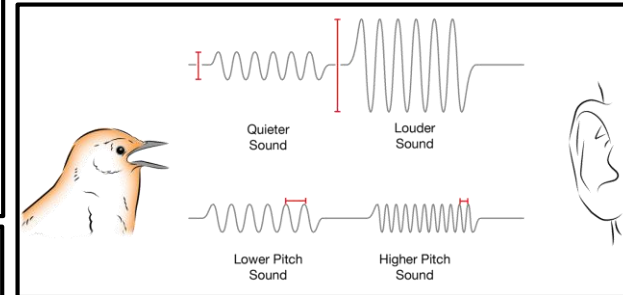
## Calculating Wave Speed

$$v = f\lambda$$

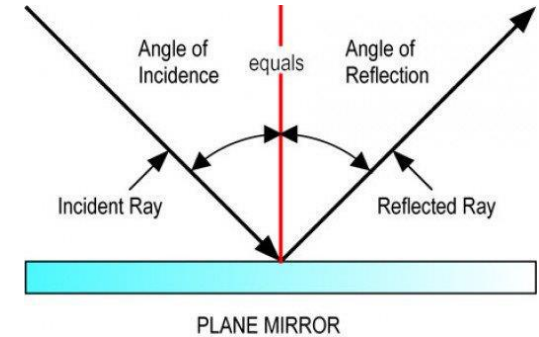
$v$  = velocity  
 $f$  = frequency  
 $\lambda$  = wavelength

## Calculating Speed

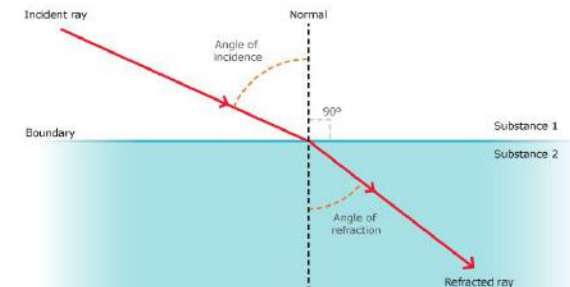
$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$



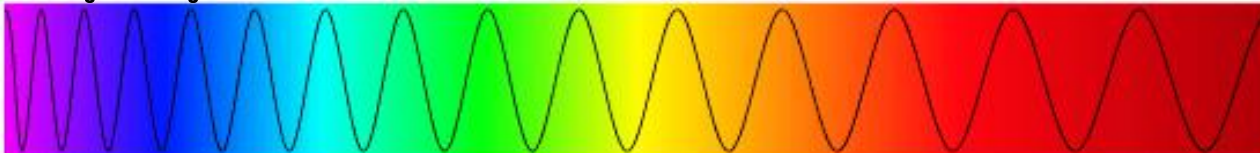
## Reflection



## Refraction



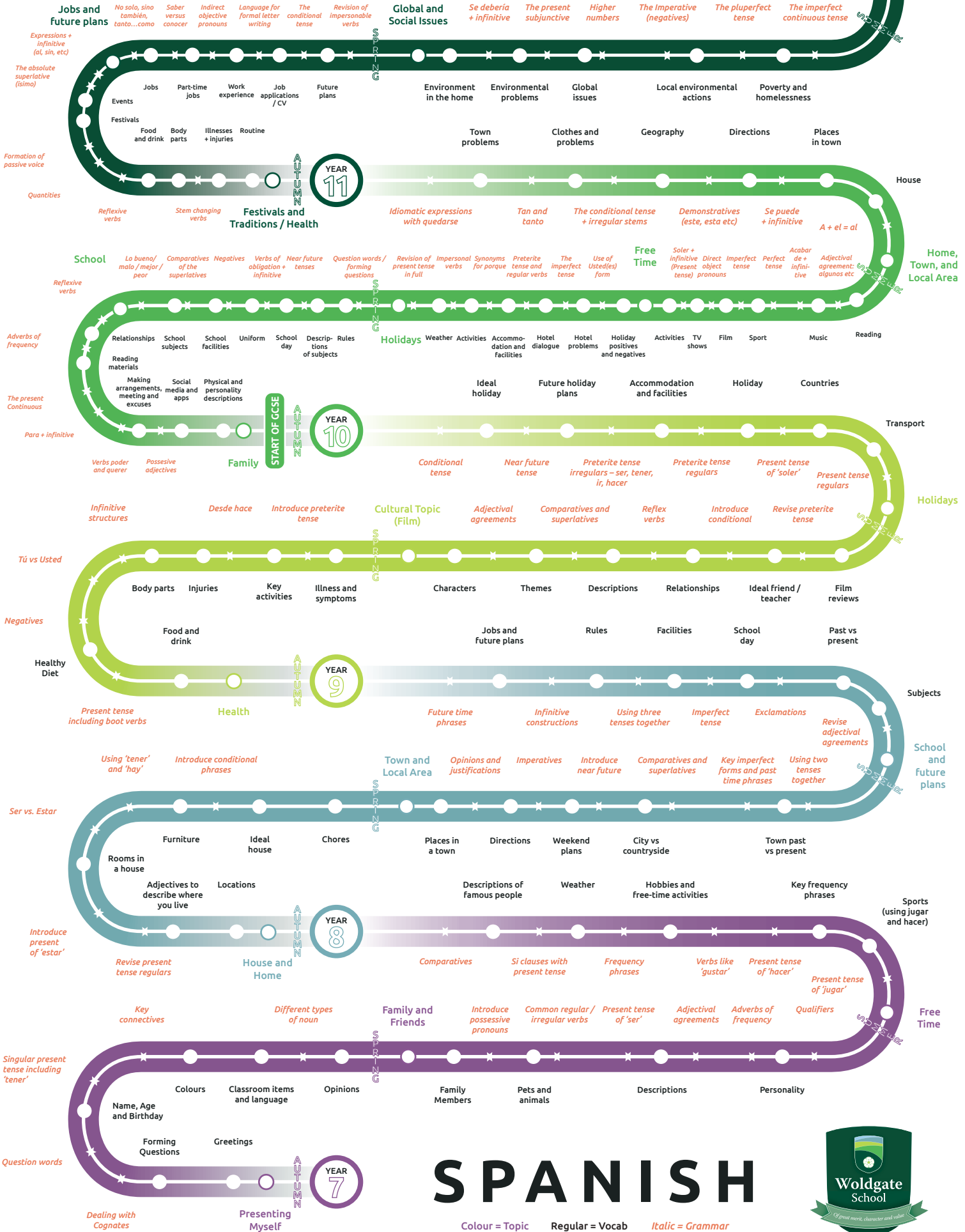
## Visible Light Wavelengths





**GCSE EXAMINATIONS**

Reading (25%)  
Listening (25%)  
Writing (25%)  
Speaking (25%)



**SPANISH**

Colour = Topic Regular = Vocab *Italic = Grammar*





# Y8 Spanish Knowledge Organiser: Unit 2 Mi insti



## En mi estuche – *In my pencil case*

En mi estuche (In my pencil case)	hay (there is/are)	un bolígrafo (a pen)	un sacapuntas (a pencil sharpener)
	tengo (I have)	un lápiz (a pencil)	unos bolígrafos (some pens)
En mi mochila (In my schoolbag)	hay (there is/are)	un pegamento (a glue stick)	unos lápices (some pencils)
	tengo (I have)	un rotulador (a felt tip)	unos rotuladores (some felt tips)
		una goma (an eraser)	una regla (a ruler)
		una pluma (a fountain pen)	unas tijeras (some scissors)
		un cuaderno (an exercise book)	un estuche (a pencil case)
		un diccionario (a dictionary)	unos cuadernos (some exercise books)
		una agenda (a planner)	una regla (a ruler)
		una calculadora (a calculator)	unas tijeras (some scissors)

**Estrategia**

**Using Spanish spontaneously**

Avoid speaking English as much as possible in class. For example, if you need a pen, ask your teacher in Spanish. It sounds impressive and helps improve your accent quickly.

There are lots of useful expressions, such as:

Necesito...	I need...
¿Cómo se dice... en español?	How do you say... in Spanish?
¡He terminado!	I have finished!
¡No entiendo!	I don't understand!

## Las asignaturas - *Subjects*

### The verb *estudiar*

Confidently using a regular *-ar* verb such as *estudiar* ('to study') in a range of tenses means you can become fluent much more quickly.

estudio	I study
estudiaba	I used to study
voy a estudiar	I am going to study
estudiaría	I would study

When saying what you or others study, you do not need to use the definite article.

- Estudio **el** español, ~~las~~ ciencias y ~~la~~ educación física.

But when giving your opinion on a subject, the definite article is needed.

- Me gusta **el** dibujo y me encanta **la** historia.

Me encanta (I love)	el dibujo (art)	porque (because)	es fácil (it's easy)
Me gusta mucho (I like a lot)	el español (Spanish)		es genial (it's great)
Me gusta (I like)	el francés (French)		es interesante (it's interesting)
	el inglés (English)		es útil (it's useful)
	el teatro (drama)		es divertido/a (it's fun)
	la educación física (PE)		es aburrido/a (it's boring)
Odio (I hate)	la geografía (geography)		es difícil (it's difficult)
No me gusta nada (I don't like at all)	la historia (history)		es inútil (it's pointless)
No me gusta (I don't like)	la informática (IT)		
	la música (music)		
	la tecnología (technology)		
			son fáciles (it's easy (pl))
Me encantan (I love)	los idiomas (languages)		son geniales (it's great (pl))
Me gustan mucho (I like a lot)	las matemáticas (maths)		son interesantes (it's interesting (pl))
Me gustan (I like)	las ciencias (science)		son útiles (it's useful (pl))
			son divertidos/as (it's fun (pl))
			son aburridos/as (it's boring (pl))
Odio (I hate)			son difíciles (it's difficult (pl))
No me gustan nada (I don't like at all)			son inútiles (it's pointless (pl))
No me gustan (I don't like)			

### Varying your language

It can be tempting to have a number of familiar expressions to fall back on. While these can be useful, try to vary your language as much as possible. For example, *me encanta* can be replaced by *me interesa mucho* or even *me apasiona*. Similarly, avoid writing solely in the present tense; if you know more tenses, use them!

Remember to add an *-n* if the subject is plural: *Me aburren las ciencias*.

<i>me aburre</i>	it bores me
<i>me entretiene</i>	it entertains me
<i>me da igual</i>	it's all the same to me
<i>me anima</i>	it cheers me up
<i>me apasiona</i>	it is a passion of mine

## ¡Qué rollazo! – How dull!

If you are giving an opinion on maths or science, you will need to use *son* instead of *es* because they are plural words in Spanish:

- *Me gustan las ciencias porque son divertidas.*

Remember that adjectives agree in number and gender with the noun they describe:

- *El inglés es aburrido. La historia es aburrida. Las ciencias son aburridas.*
- *El dibujo es fácil. La geografía es fácil. Las matemáticas son fáciles.*

### Exclamations with ¡qué...!

*¡Qué...!* can be followed by an adjective or a noun to make exclamations in Spanish.

*¡Qué fascinante!* How fascinating!

*¡Qué frío!* How cold!

*¡Qué casa!* What a house!

*¡Qué ciudad!* What a city!

Note that the adjective must still agree with what it describes:

- *No me gusta nada la geografía. ¡Qué aburrida!*

### Using slang expressions

Using informal Spanish can make you sound like a native speaker, but do so with care – you don't want to come across as rude!

- *¡Qué rollazo!* What a bore!
- *El profesor es guay.* The teacher is cool.
- *Paso de la informática.* I can't be bothered with ICT.
- *La música es una pasada.* Music is awesome.

## Mi horario escolar – My school timetable

### Telling the time

Use **es** to mean 'it is' when referring to one o'clock, and **son** when referring to all other times.

**Es la una.** It's one o'clock.

**Son las dos.** It's two o'clock.

State the hour before the minutes, and link them with **y** if it is 'past' the hour, or **menos** if it is 'to' the hour.

**Es la una y cuarto.** It's quarter past one.

**Son las cuatro menos veinte.** It's twenty to four.



El lunes (On Monday) El martes (On Tuesday) El miércoles (On Wednesday) El jueves (On Thursday) El viernes (On Friday) Todos los días (Every day)	a (at)	las nueve (9:00) las diez (10:00) las once (11:00) las doce (12:00) la una (1:00) las dos (2:00) las tres (3:00)	y cinco (+05) y diez (+10) y cuarto (+15) y veinte (+20) y veinticinco (+25) y media (+30) menos veinticinco (-25) menos veinte (-20) menos cuarto (-15) menos diez (-10) menos cinco (-05)	tengo clase de (I have (class of))	dibujo (art) español (Spanish) francés (French) inglés (English) teatro (drama) educación física (PE) geografía (geography) historia (history) informática (IT) música (music) tecnología (technology) matemáticas (maths) ciencias (science)
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## Mi día ideal... - My ideal day

Estudiaría	-	I would study
Sería	-	It would be
Habría	-	There would be
Tendría	-	I would have

## Mi colegio era... - My school used to be...

### The imperfect tense

This tense is used to describe repeated actions in the past (what **used to** be done) or what someone **was** doing.

To form it, remove the last two letters of the infinitive and add the following endings.

	-ar	-er / -ir
yo	-aba	-ía
tú	-abas	-ías
él/ella	-aba	-ía
nosotros/as	-ábamos	-íamos
vosotros/as	-abais	-íais
ellos/as	-aban	-ían

*vijaban* – they used to travel / they were travelling

*comías* – you used to eat / you were eating

There are only three irregular verbs in the imperfect tense.

*ser* → *era, eras, era...*

*ir* → *iba, ibas, iba...*

*ver* → *veía, veías, veía...*

Estudiaba	-	I used to study
Mi colegio era	-	My school used to be
Había	-	There used to be
Tenía	-	It used to have

## Lo que hay en mi instituto – What there is in my school

En mi escuela primaria	(no) había (no) hay	(una) piscina (un) polideportivo	a pool a sports centre
En mi insti	there was/is (not)	(unas) pizarras (interactivas)	interactive white boards
Mi escuela primaria	(no) tenía (no) tiene	(unas) aulas de informática	exams / homework
Mi insti	it had it has (did/doesn't)	exámenes / deberes (un) uniforme	a uniform
		espacios verdes	green spaces
		más tiempo libre	more free time
		más alumnos / profesores	more pupils / teachers
		más oportunidades para hacer.	more opportunities to do...
El edificio	(no) era(n) (no) es	(in)adecuado / colorido	The building (in)adequate / colourful
Las instalaciones	(no) son	moderno / antiguo	The facilities modern / old
El día escolar	was/were is/are (not)	más corto / largo	The school day shorter / longer
Las asignaturas		más fácil / duro	The subjects easier / harder
Las clases		mejor / peor	The lessons better / worse (The classes)

# Las reglas - Rules

## Aa Gramática

### Se puede and se debe

*Se puede* ('one can' or 'you can') and *se debe* ('one must' or 'you must') are useful impersonal expressions that are formed by using *se* and the third-person singular form of the verb. They are followed by the infinitive:

- *Se puede estudiar teatro en mi instituto.*  
You/One can study drama in my school.
- *No se debe escuchar música en clase.*  
You/One must not listen to music in class.

You must	You must not..
Se debe...	No se debe...
ser puntual	be punctual (on time)
gritar en clase	shout in class
respetar a los profesores	respect the teachers
hacer los deberes	do your homework
correr por los pasillos	run in the corridors
ser maleducado/a con los profesores	be rude to teachers
comer en el comedor	eat in the dining hall
prestar atención en clase	pay attention in class
usar el móvil	use your mobile phone
ensuciar las instalaciones	

# Y después de las clases – And after classes

Por la mañana (In the morning)	me lavo los dientes (I clean my teeth)	me pongo el uniforme (I put on my uniform)	voy al colegio (I go to school)
Antes del colegio (Before school)			
Entre semana (During the week)	me acuesto (I go to bed)	hago mis deberes (I do my homework)	paseo al perro (I walk the dog)
Los fines de semana (At weekends)	almuerzo (I have lunch)	juego a los videojuegos (I play videogames)	preparo mi mochila (I prepare my schoolbag)
Todos los días (Every day)	ceno (I have dinner)	leo un libro (I read a book)	veo la tele (I watch TV)
Después del colegio (After school)	descanso (I rest)	me meto en Internet (I go on the internet)	vuelvo a casa (I return home)
Por la tarde (In the afternoon/evening)			
Por la noche (At night)			

The expression *al* + infinitive translates in English as 'upon -ing'. Use it to make really impressive sentences.

- *Al salir de clase, voy al club de ajedrez.*  
Upon leaving class, I go to chess club.

### Antes de, después de + infinitive

*Antes de* ('before') and *después de* ('after') are followed by the infinitive form of the verb to mean 'before -ing' or 'after -ing'.

*antes de visitar a mis abuelos*  
before visiting my grandparents  
*después de jugar al fútbol*  
after playing football

# Mis planes – My plans

## Gramática

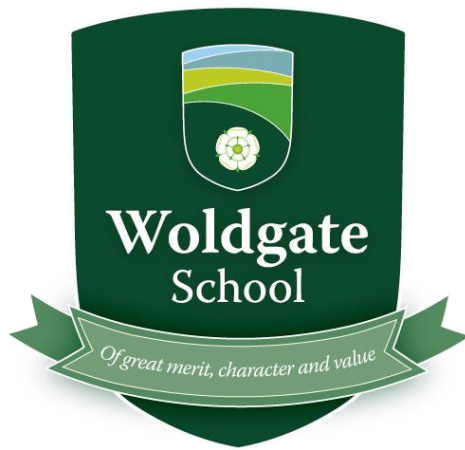
### The Near Future

Use the verb *ir* + *a* + infinitive to talk about what *is going to happen*.  
*Voy a ir a la playa.* – I am going to go to the beach.

I am going to	voy a
You are going to	vas a
He/She/It is going to	va a
We are going to	vamos a
You (plural) are going to	vais a
They are going to	van a

En el futuro – <i>in the future</i>	tengo la intención de – I intend to	estudiar ciencias – study science
El año que viene – next year	espero – I hope to	ser médico en un hospital – be a Doctor
El curso próximo – next school year	quisiera – I would like to	trabajar en un hotel – work in a hotel
Pronto – soon	me gustaría – I would like to	viajar a Australia – travel to Australia
Dentro de poco - <i>shortly</i>	me encantaría – I would love to	ir a la universidad – go to University

Mañana (Tomorrow)	voy a (I am going to)	arreglar mi habitación (to tidy my room)	hacer mis deberes (to do my homework)	salir con mis amigos (to go out with my friends)
Pasado mañana (The day after tomorrow)	no voy a (I am not going to)	ayudar a mis padres (to help my parents)	jugar con mis hermanos (to play with my siblings)	tocar la guitarra (to play the guitar)
La semana que viene (Next week)	quiero (I want)	comer en el restaurante italiano (to eat in the Italian restaurant)	montar en bici (to ride my bike)	ir al centro comercial (to go to the shopping mall)
	me gustaría (I would like)			



Everything you do should be of great merit, character, and value