

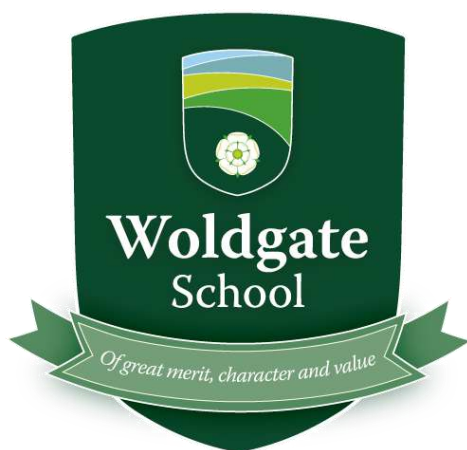


# Year 8

# Knowledge Book

## Autumn Term



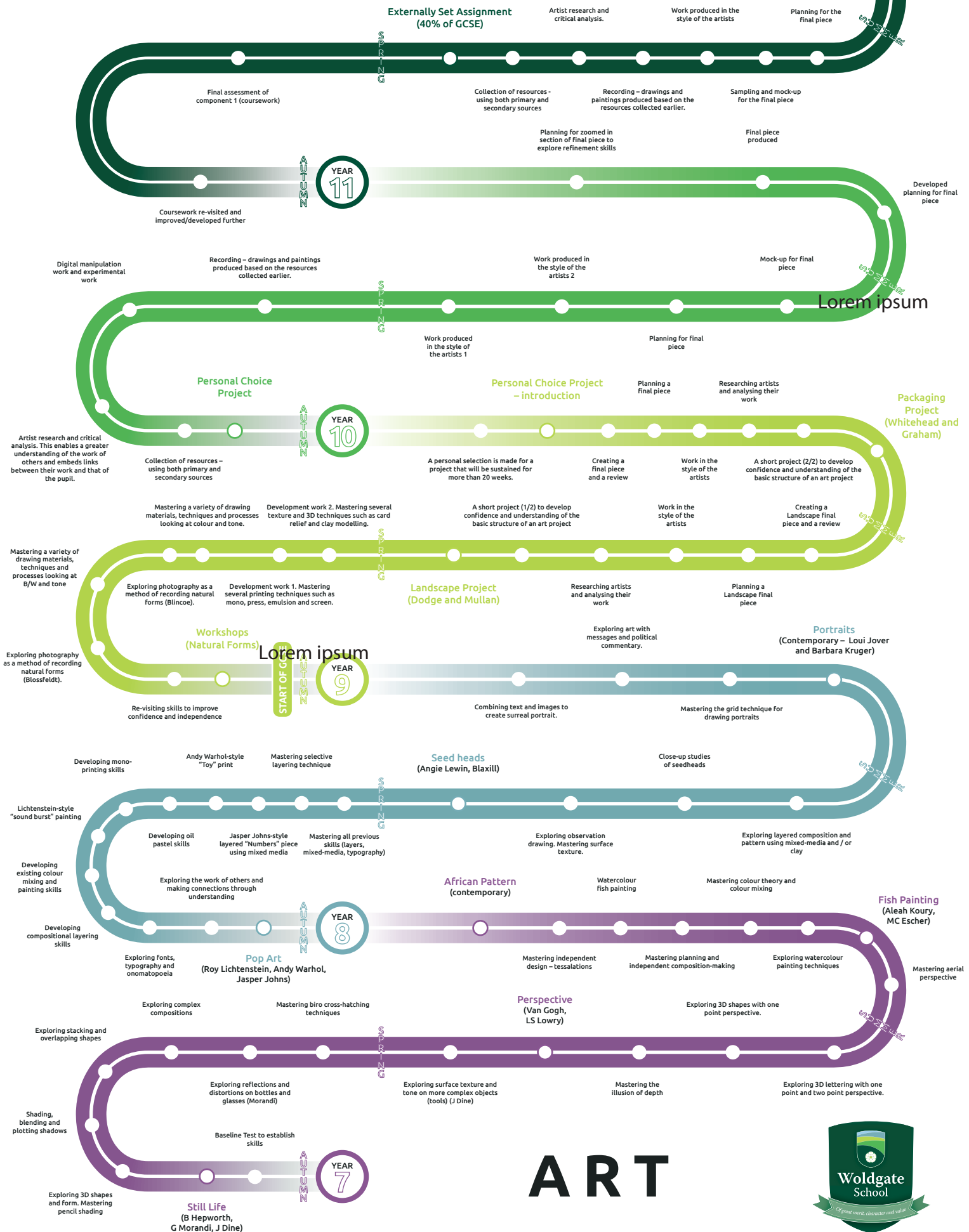


# Art



**GCSE EXAMINATIONS**

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



**ART**



LINE

TONE

SHAPE & FORM

COLOUR

TEXTURE

PATTERN

TYPES OF PRINTING

**MONO**  
Single print

**FOAM (OR PRESS)**  
Image drawn into a polystyrene tile

**LINO**  
Image carved into linoleum (rubber tile)

**SCREEN**  
Ink is pulled through a mesh screen

**STENCILLING**  
Ink passed through holes in paper, card, metal

Key Words

**Monoprinting**

a form of printmaking where the image can only be made once

**Additive Prints**

shows an ink line (also known as positive prints)

**Subtractive Prints**

doesn't show an ink line (also known as negative prints)

**Repetition**

Images repeat, being used more than once or produced multiple times

**Sequin excess**

the leftover plastic from creating sequins. Used in art as a stencil

**Stenciling**

technique for reproducing designs by passing ink or paint over holes cut in cardboard or metal onto the surface to be decorated

**Lettering**

art of drawing letters, instead of simply writing them.

**Outline**

The main edge of something with no detail

**Consumerism**

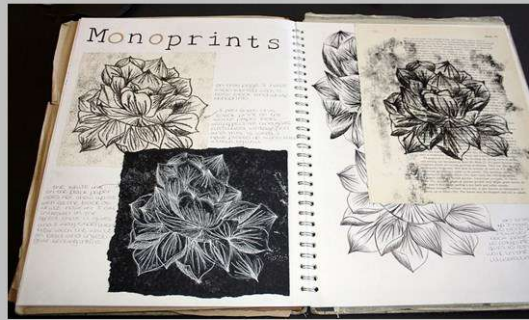
the idea was that the consumption of consumer goods was linked to the achievement of success.

**Pop Art Consumerism**

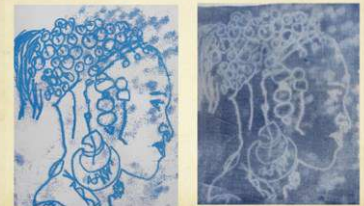
Artists exaggerated the popular culture and imagery of the time in order to ridicule and criticise consumerism.

**Mass Production**

the manufacture of a product in large numbers and at a low cost.



Example of positive and negative prints



You will be creating both positive and negative monoprints

LEFT: POSITIVE MONOPRINT (INK LINE)  
RIGHT: NEGATIVE MONOPRINT (NO INK LINE)

Roll out the ink on the table and then place a drawing or photograph (face-up) on top. Draw using a pencil on top of the photo to create sharp lines. Use a finger for subtle smudges. When dry work, over the top with oil pastel, paint or biro.

ANDY WARHOL'S SCREEN PRINTS



Giant Pander (1983)



Sometimes Warhol's prints were uneven. Does it matter? Can you name this piece of Warhol's?

§ (4) (1982)

Challenge Questions: Which type of print do you think you can get the most detail? How can you create layers when using lino or press printing? Can you name a famous artists that uses stencilling (you may know the artist as a graffiti artist)?

LINE

TONE

SHAPE & FORM

COLOUR

TEXTURE

PATTERN

Sound Words

- BANG
- BOING
- BOOM
- BUMBLEBEE
- BUFFOON
- BUZZ
- CHATTER
- CHIRP
- CLANG
- CLATTER
- CLICK
- CLACK
- CRACKLE
- CRUNCH
- DING
- DONG
- DRIP
- FIZZ
- GIGGLE
- HICCOUP
- HOWL
- POW
- SCREECH
- SPLASH
- SPLAT
- SQUEAK
- SQUISH
- SNAP
- SNEEZE
- RATTLE
- TICK-TOCK
- WHOOSH

Key Words

**Popular Culture**

a set of beliefs, values, actions, objects, or goods and practices that are popular at any given time and space in society. It can refer to things like art, literature, fashion, dance, film, television, magazines

**Iconic**

widely known and acknowledged especially for distinctive excellence

**Benday dots**

The optical illusion caused by the spacing of dots

**Onomatopoeia**

The formation of a word from a sound i.e. hiss

**Cartoon**

a simple drawing showing the features of its subjects in a humorously exaggerated way, especially a satirical one in a newspaper or magazine.

**Comic Art**

the creation of stylized or simplified drawings for the purpose of telling a story, making a point, or making people laugh.

**Layering**

Building up surfaces of paper or paint creating the impression that one shape is in front of, or behind another

**Substitute colours**

changing colours from the realistic colours

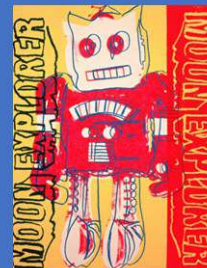
**Mundane objects**

Everyday objects that are often insignificant and overlooked

ROY LICHTENSTEIN (1923-1997)  
AMERICAN POP ARTIST  
WHAAM! (1963)



ANDY WARHOL (1928-1987)  
AMERICAN POP ARTIST  
MOON EXPLORER (1983)



JASPER JOHNS (1930-)  
AMERICAN POP ARTIST  
FROM 0 TO 9 (1961)



TOM WESSELMANN



PETER BLAKE



CLAES OLDENBURG



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?

# POP ART ARTIST TIMELINE

JAMES BESSIE (1934)  
AMERICAN ABSTRACT EXPRESSIONISM & POP ARTIST



JAMES BESSIE (1934)  
AMERICAN ABSTRACT EXPRESSIONISM & POP ARTIST



ANDY WARHOL (1928-1987)  
AMERICAN POP ARTIST  
MARILYN MONROE (1967)



## 20<sup>th</sup> CENTURY

ROY LICHTENSTEIN (1923-1997)  
AMERICAN POP ARTIST



MARK ROSS (1924)  
AMERICAN AND GERMANY ABSTRACT EXPRESSIONISM



MARK ROSS (1924)  
AMERICAN AND GERMANY ABSTRACT EXPRESSIONISM



KEITH HARING (1958-1990)  
AMERICAN POP ARTIST AND STREET ARTIST  
POP SHOP (1981)



TOM WESSELMANN (1931-2017)  
AMERICAN POP ARTIST  
THE LIFE (1965)

WAYNE THIBAUD (1920-2001)  
AMERICAN POP ART AND FINE ARTIST  
THE LIFE (1965)



RENÉE KAHN (1916-2006)  
BRITISH POP ARTIST



ROBERT RAUSCHENBERG (1925-2008)  
AMERICAN POP ARTIST AND GRAPHIC ARTIST  
RETROACTIVE I (1963)



DAVID HOCKNEY (1937-)  
BRITISH PAINTER AND POP ARTIST  
BIGGER SPLASH (1967)



RICHARD HAMILTON (1922-2011)  
ENGLISH POP ARTIST PAINTER AND COLLAGE ARTIST  
MY HEART (1964-5)



JAMES GILL (1934-)  
AMERICAN POP ARTIST  
THREE FACES OF MARILYN (2014)



PETER BLAKE (1932-)  
BRITISH POP ARTIST  
SOURCES OF POP ART VI (2007)



MICHAEL CRAIG-MARTIN (1941-)  
IRISH CONCEPTUAL ARTIST  
ART GREEN (2010)



YAYOI KUSAMA (1929-)  
JAPANESE POST-WAR EUROPEAN ART AND POP ARTIST  
MUSHROOMS (2005)



MIMMO ROTELLA (1918-2006)  
ITALIAN POST-WAR EUROPEAN ART AND POP ARTIST  
SEMPRE LEI MARILYN (2002)



DAMIEN HIRST (1965-)  
BRITISH CONCEPTUAL ART AND NEO-POP ARTIST  
GEORGE MICHAEL (2017)



NICLAS CASTELLO (1991)  
GERMAN CONTEMPORARY POP ARTIST  
THE COOL JAWNY PUP (2015-16)



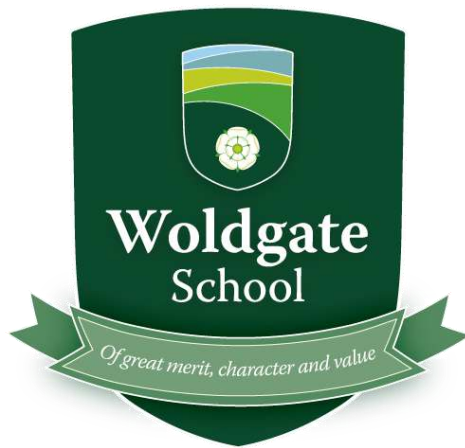
JEFF KOONS (1955-)  
AMERICAN NEO-POP ARTIST AND SCULPTOR  
POPEYE (2009-12)



BANKSY  
BRITISH STREET ART AND NEO-POP ARTIST  
GIRL WITH BALLOON (2006)



## 21<sup>st</sup> CENTURY



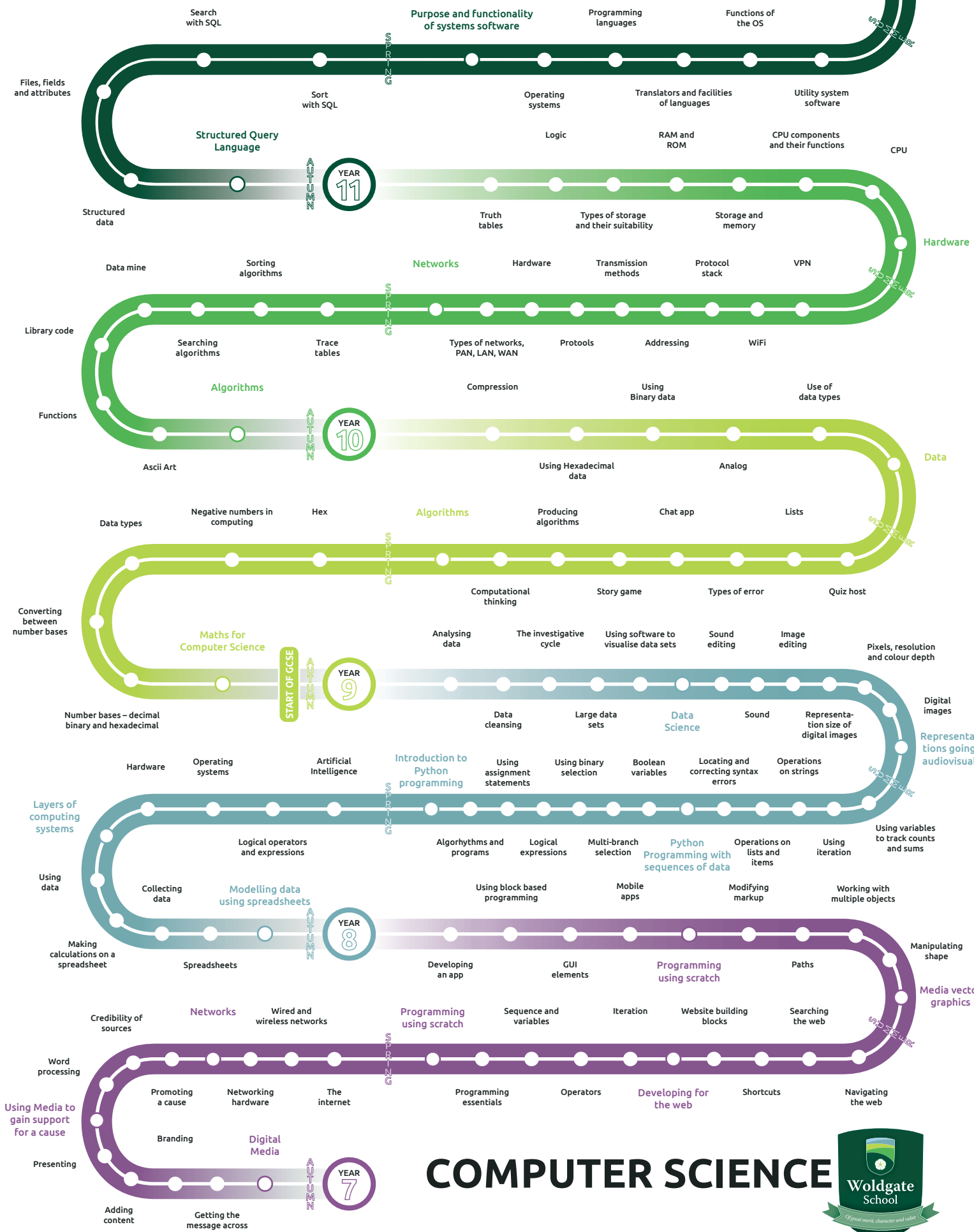
# Computer Science



**GCSE EXAMINATIONS**

2 GCSE Exam Papers

Revision



**COMPUTER SCIENCE**



# MODELLING DATA - SPREADSHEETS

## Key Terms

<b>Modelling</b>	A program which has been developed to mimic a real life system. Spreadsheets use mathematical formulas and calculations to predict what is likely to happen based on data recorded about what actually did happen in the past. Software includes Microsoft Excel and Google Sheets.
<b>Cell</b>	One box on a spreadsheet. A group of cells together is called a <b>range</b> .
<b>Cell Reference</b>	The unique 'address' of a cell on a spreadsheet, made up of the Column letter and Row number, e.g. A1
<b>Range</b>	A group of cells that are next to each other, e.g. A2:B6
<b>Active cell</b>	The currently selected cell. It has a thick black line around it with a small dot called the fill handle in the bottom right corner
<b>Row</b>	A group of cells 1 cell <b>high</b> going across a worksheet. In Excel, these are the numbers down the left side of the page.
<b>Column</b>	A group of cells 1 cell <b>wide</b> going from the top to the bottom of a worksheet. In Excel these are the letters going across the top of the page.
<b>Label</b>	This is a piece of text that explains what the data in the cell next to it represents.
<b>Absolute cell reference</b>	Refers to a specific cell and doesn't change when copied to other cells using the fill handle. E.g.\$D\$3
<b>Chart</b>	A picture of data made from a range of cells. There are lots of types which are useful for different reasons, e.g. pie, line, scatter, area, radar, bar, radar etc
<b>Legend</b>	A table that explains which data is represented by different colours on a chart
<b>Formula</b>	Used in a spreadsheet cell, this <b>starts</b> with an '=' and combines numbers, mathematical operators and functions to manipulate data
<b>Function</b>	These are built in to spreadsheets and perform standard tasks, like finding the average, highest and lowest of a set of numbers. They always look like =FunctionName(Details the function needs). Tooltips will appear as you type them to tell you what details that function needs.
<b>Fill</b>	Copies the contents of a cell or range of cells into others by dragging the fill handle in the bottom right of the active cell or range.
<b>Conditional Formatting</b>	Changes what a cell looks like based on rules about the data a cell contains.

## Key Facts / Methods / Processes/Questions

<b>Where are Computer Models used?</b>	Computer models are used in schools to predict student performance in exams, they are used to predict the weather, to predict how financial markets are going to change, to see whether car components will fit together before they are made and to see if a business is making enough money to stay open.
<b>How are spreadsheets used in computer models?</b>	Spreadsheets are very good at processing data and then presenting it in graphical form. Presenting data in the form of a chart makes it much easier to understand, which makes it more persuasive than a table of numbers.

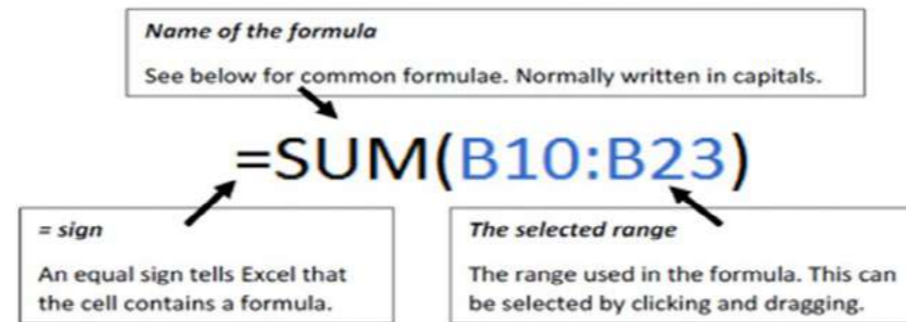
**Cell references begin with a letter, and finish with a number. EG: A1**

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							

**A range is a selection of cells. EG: A2:F4**

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							

**Golden rule: every formula always starts with an =**



## Cell Formatting

<b>Number</b>	tell the spreadsheet what type of data the cell contains, eg currency, percentage, date, time, etc
<b>Alignment</b>	align the text in the cell vertically (top, bottom or middle), horizontally (left or right) or at an angle
<b>Font</b>	change the font used, text size and colour
<b>Border</b>	– add a solid, dotted, dashed or coloured border to the cell
<b>Adjusting column width and row height</b>	To adjust a column's width or a row's height, move your mouse cursor between two columns or rows. Click and drag to resize. To automatically resize a row to fit the data entered in a cell, double-click between the current row and the row after it.

## Modelling Data

### Example Question

- 1) Begin by calculating **Min Max Average** for the price of the products sold
- 2) Use a function to calculate the **total stock**
- 3) Add an **IF function** to monitor stock levels. If stock falls below 20 then **'Re-Order'** or **'No Action'**.
- 4) Add conditional formatting on the Re-Order cells

Stock						
Stock Information					Min Stock Level	20
Stock Code	Description	Price	Stock	Re-order Stock		
D1	Daisy Card	1.99	15	ReOrder		
D2	Daisy Card1	1.99	12	ReOrder		
D3	Daisy Crazy Challenge Game	5.99	78	No Action		
D4	Daisy Cushion	6.99	20	No Action		
D5	Daisy Stickers	2.99	56	No Action		
D6	Daisy Diaper Cover	7.99	23	No Action		
D7	Daisy Doll	9.5	10	ReOrder		
D8	Daisy DollsHouse	52	23	No Action		
D9	Daisy Flower	3.5	24	No Action		
D10	Daisy Fragrance	25.99	23	No Action		
D11	Daisy Frame	11.5	23	No Action		
D12	Daisy Lip Gloss	3.5	25	No Action		
D13	Daisy Magazine	3.5	29	No Action		
D14	Daisy Paper	4.99	32	No Action		
D15	Daisy Pendant	15.99	33	No Action		
D16	Daisy Perfume Ring	20	25	No Action		
D17	Daisy Pots with Flowers	6.1	25	No Action		
D18	Daisy Tableware	19.5	35	No Action		
D19	Daisy Tableware1	45.5	5	ReOrder		
D20	Daisy Tableware Portmeirion	78	9	ReOrder		
		<b>Min</b>	1.99	<b>Stock Total</b>	525	
		<b>Max</b>	78			
		<b>Average</b>	16.3755			

## Common Functions

<b>= sum ( )</b>	Adds a range of cells together.
<b>= average ( )</b>	Finds the average for a range of cells
<b>= min ( )</b>	Returns the smallest value in the range
<b>= max ( )</b>	Returns the highest value in the range
<b>= count ( )</b>	Counts how many cells meet a condition, e.g. count(A:A, "April") would return the number of times the word April (with a capital letter), occurs in column A

## Advance Functions

<b>IF</b>	change the value of a cell if something is true, eg if a customer's total bill is over £100, deduct 10% from their bill.
<b>COUNTIF –</b>	adds up cells that meet a certain rule, eg count the number of students that achieved level 6.
<b>VLOOKUP</b>	matches contents of a cell with an answer, eg how much is a pepperoni pizza?

## Charts & Graphs






Charts and graphs provide a visual representation of data, which can often be easier to understand. There are several types of charts and present data—You must always consider which would be a suitable chart or graph for your model.

- LINE GRAPH** – to show a change over time
- PIE CHART** – show the individual parts that make up a whole
- BAR CHART** – compare things that aren't directly related
- SCATTER GRAPH** – look for a pattern or link between two sets of data



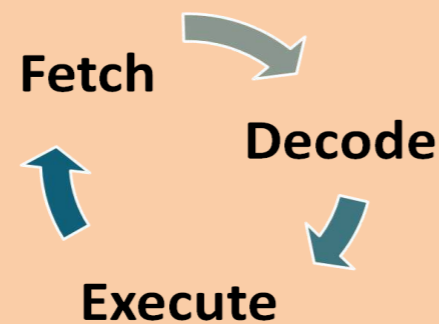
# COMPUTER SYSTEMS

## Devices

Device	What is it?	Input, Output or Storage ?	What it is used for ?
	Monitor	Output	Displaying images and text
	Mouse	Input	Selecting items on a screen
	CD or DVD	Storage	Storing files eg movies
	USB Flash Memory Stick	Storage	Backing up or transferring data from one computer to another
	Keyboard	Input	Creating or editing a document
	Printer	Output	Print Work
	Hard Disk Drive	Storage	Storing applications and files
	Speakers	Output	Hearing system sounds / noises / beeps
	Scanner	Input	Scanning important documents to store digitally
	Sim Card	Storage	Storing mobile phone contacts
	Webcam	Input	Using video calling over the Internet
	Headphones	Output	Listening to music

## Fetch – Decode – Execute cycle

1. Computer has a list of instructions in memory to carry out
2. CPU **Fetches** top instruction from the list
3. Instructions is passed to **Decoder** to interpret
4. **Decoder** passes on the instruction
5. Instruction is **Executed** or carried out
6. CPU **Fetches** top instruction from the list...



## What is Binary

Binary is a number system that only uses two digits: 1 and 0. All information that is processed by a computer is in the form of a sequence of 1s and 0s. Therefore, all data that we want a computer to process needs to be converted into binary.

The binary system is known as a 'base 2' system. This is because: There are only two digits to select from (1 and 0)

When using the binary system, data is converted using the power of two.

NAME	EQUAL TO	SIZE IN BYTES
Bit	1 bit	1/8
Byte	8 bit	1
Kilobyte	1,000 byte	1,000
Megabyte	1,000 kilobyte	1,000,000
Gigabyte	1,000 megabyte	1,000,000, 000
Terabyte	1,000 gigabyte	1,000,000, 000, 0000

## Storage capacities

Device and capacity	Strengths	Weaknesses
<b>USB</b> 6-32Gb or more	Easily portable, fast, high capacity storage, durable	Easy to lose. Slower than an internal hard disk
<b>INTERNAL HARD DRIVE</b> 1 TB or more	Large storage capacity	Internal hard disks are not portable. External hard disks are not very convenient to carry around and have moving parts so are breakable
<b>OPTICAL DRIVE</b> 4GB to 9GB or up to 50GB for rewritable Blu-ray	Large storage capacity, sound and picture quality excellent, cheap	Easily scratched, too large to fit in a pocket
<b>SD CARD</b> 8-64 GB, typically	Used in portable devices such as cameras	Easily lost. Not good for long term storage – may deteriorate after several years
<b>CLOUD STORAGE</b> Infinite, depending on how much you are prepared to pay	Useful for backup as it is secure, not likely to be lost. Data can be accessed from anywhere, or shared with others	Can be slower to access than data held on a local hard disk

## Key Terms

<b>Hardware</b>	Objects that you can touch, like a keyboard
<b>Software</b>	You cannot 'touch' software. Software refers to the programs that run on a computer. Examples of software: Windows, MS Word, MS Excel, Kodu and Logo.
<b>Input Devices</b>	In computing, an <b>input device</b> is computer hardware which is used to enter data for processing. Examples of <b>input devices</b> include keyboard, mouse, image scanner, digital cameras and joysticks
<b>Output Devices</b>	An <b>output device</b> is any hardware <b>device</b> used to send data from a computer to another <b>device</b> or user. Typical examples of <b>output devices</b> are monitors and projectors (video), headphones and speakers (audio), or printers and plotters
<b>Storage Devices</b>	A piece of computer equipment on which information can be stored.
<b>Peripheral</b>	A <b>peripheral device</b> is <b>defined</b> as a computer <b>device</b> , such as a keyboard or printer, that is not part of the essential computer (i.e., the memory and microprocessor).
<b>Binary</b>	Binary is a number system that only uses two digits: 1 and 0
<b>Operating System</b>	Manages the hardware and software in a computer (E.g. Windows 10).
<b>Systems Software</b>	Software that helps maintain the computer – such as anti-virus or compression ('Zip') software
<b>Applications Software</b>	Everyday programs such as Microsoft Office, web browsers and graphics packages
<b>Optical media</b>	Refers to discs that are read by a laser. This includes CD-ROMs, DVD-ROMs

# COMPUTER SYSTEMS

## Devices

Decimal	Binary	Character	Decimal	Binary	Character	Decimal	Binary	Character
32	00100000	space	64	01000000	@	96	01100000	`
33	00100001	!	65	01000001	A	97	01100001	a
34	00100010	"	66	01000010	B	98	01100010	b
35	00100011	£	67	01000011	C	99	01100011	c
36	00100100	\$	68	01000100	D	100	01100100	d
37	00100101	%	69	01000101	E	101	01100101	e
38	00100110	&	70	01000110	F	102	01100110	f
39	00100111	'	71	01000111	G	103	01100111	g
40	00101000	(	72	01001000	H	104	01101000	h
41	00101001	)	73	01001001	I	105	01101001	i
42	00101010	*	74	01001010	J	106	01101010	j
43	00101011	+	75	01001011	K	107	01101011	k
44	00101100	,	76	01001100	L	108	01101100	l
45	00101101	-	77	01001101	M	109	01101101	m
46	00101110	.	78	01001110	N	110	01101110	n
47	00101111	/	79	01001111	O	111	01101111	o
48	00110000	0	80	01010000	P	112	01110000	p
49	00110001	1	81	01010001	Q	113	01110001	q
50	00110010	2	82	01010010	R	114	01110010	r
51	00110011	3	83	01010011	S	115	01110011	s
52	00110100	4	84	01010100	T	116	01110100	t
53	00110101	5	85	01010101	U	117	01110101	u
54	00110110	6	86	01010110	V	118	01110110	v
55	00110111	7	87	01010111	W	119	01110111	w
56	00111000	8	88	01011000	X	120	01111000	x
57	00111001	9	89	01011001	Y	121	01111001	y
58	00111010	:	90	01011010	Z	122	01111010	z
59	00111011	;	91	01011011	[	123	01111011	{
60	00111100	<	92	01011100	\	124	01111100	
61	00111101	=	93	01011101	]	125	01111101	}
62	00111110	>	94	01011110	^	126	01111110	~
63	00111111	?	95	01011111	_	127	01111111	del

## Binary can be used to represent characters

- 1) **Alphanumeric characters** are used to make **words** and strings. They include uppercase and lowercase **letters**, the **digits 0 – 9**, and symbols like ? + and £.
- 2) Computers are **unable** to process these characters directly as they only process binary code. So they need a way of **converting** these characters to binary code and vice versa. They can do this using **character sets**.
- 3) Character sets also contain **special characters** which do certain commands (eg enter and delete)
- 4) Pressing a button on your **keyboard** sends a binary signal to the computer telling it which key you pressed. The computer then uses the character set to **translate** the binary code into a particular character.

You can work out the **size** of a text file using this formula

$$\text{FILE SIZE (IN BITS)} = \text{NUMBER OF BITS PER CHARACTER} \times \text{NUMBER OF CHARACTERS}$$

Example—a text file that uses 8 bits per character and contains 200 characters will have a file size of **8 x 200 = 1600 bits**

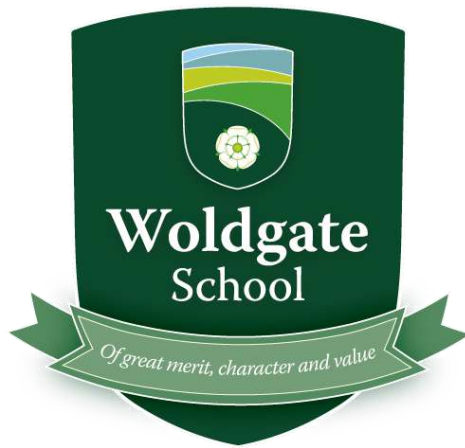
## What is Binary

ASCII is the most commonly used character set in the English speaking world.

Each ASCII character is given a **7-bit** binary code - this means it can represent a total of 128 different characters including all the letters in the English alphabet, numbers, symbols and commands.

An **extra bit (0)** is added to the **start** of the binary code for each ASCII character. This means each ASCII character fits nicely into **1 byte**.

The codes for numbers, uppercase letters and lowercase letters are ordered (A comes before B comes before C ..... ) with symbols and commands scattered around.



# Design & Technology

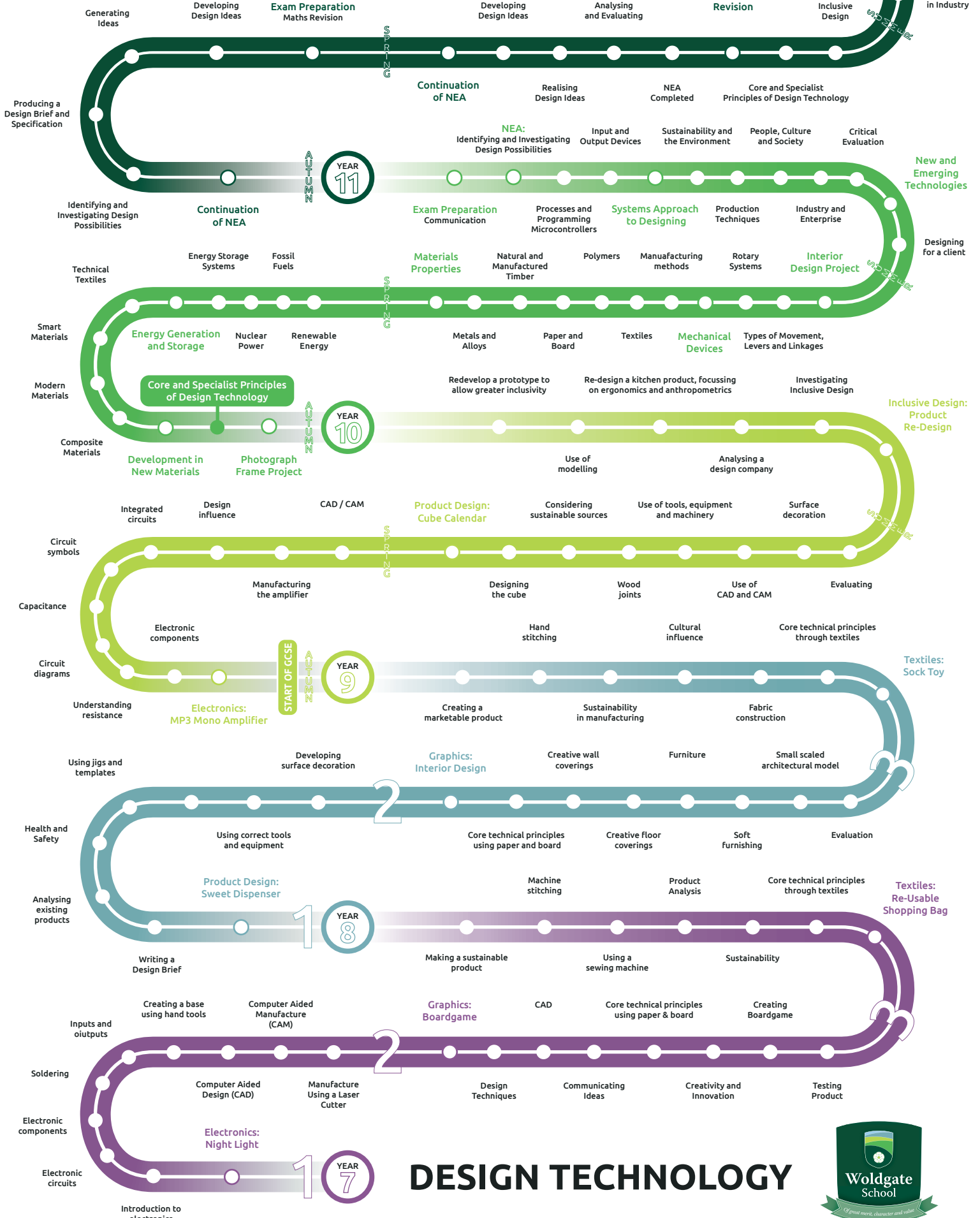


**GCSE EXAMINATIONS**

1 Written Paper

Maths Revision

Manufacturing in Industry



**DESIGN TECHNOLOGY**



# 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?

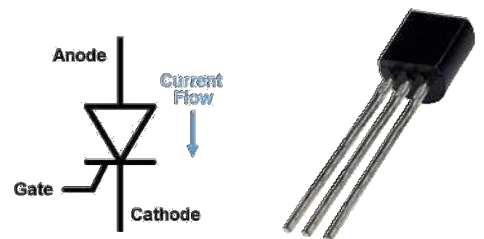
**E**

## Ergonomics

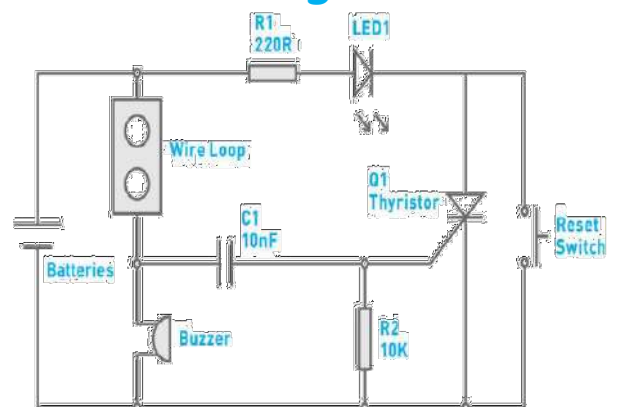
How has the product been designed to improve the comfort of the end user? Is it comfortable? Is it too heavy?



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



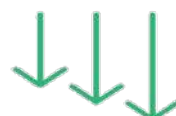
RETHINK



REFUSE



REPAIR



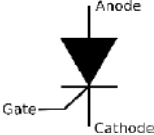


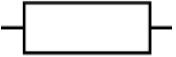

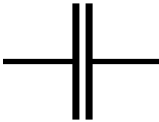
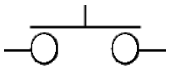
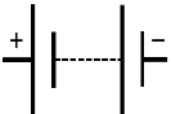
REDUCE



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.

### 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.

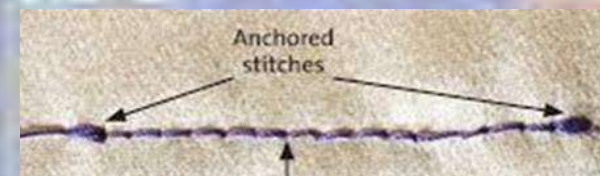
Popular themes, details & colours of Indian culture.

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



### 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



# English

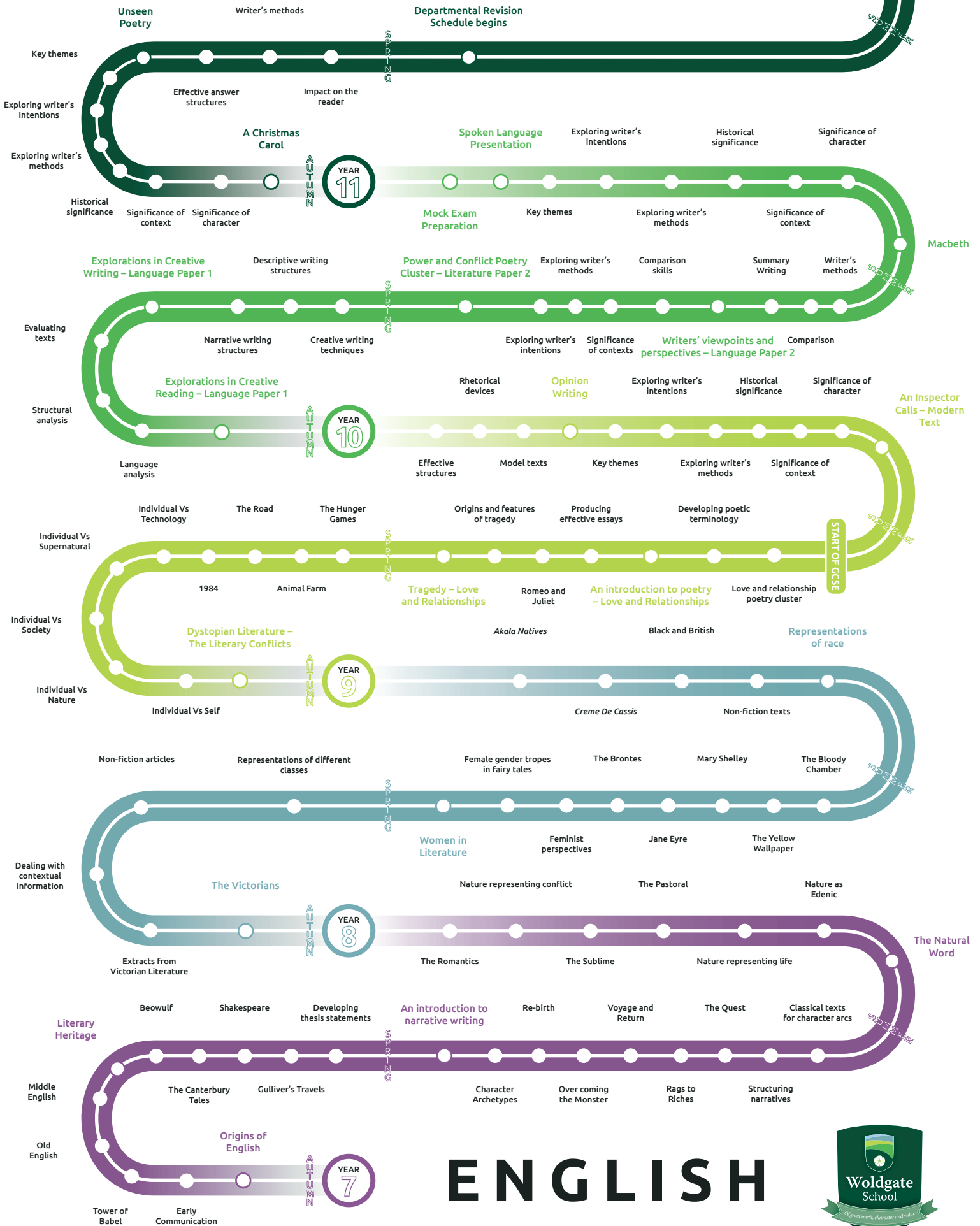




**GCSE EXAMINATIONS**

Two English Language Papers

Two English Literature Papers



**ENGLISH**



## Context

The circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood.

## Social Class (also called class)

A group of people within a society who possess the same socioeconomic status.

Besides being important in social theory, the concept of class as a collection of individuals sharing similar economic circumstances has been widely used in censuses and in studies of social mobility.

## SOCIAL CONTEXT.

The social context of a text is:

- **The way in which the features of the society it is set in impact on its meaning.** There are two aspects to social context:
  - The kind of society presented in the book.
  - The one in which the author's text was produced.

## Conscious Construct

A text is the voice of a writer. They may be using that voice to speak personally or for

## Accent

An accent is a distinctive way of pronouncing a language, especially one associated with a particular country, area, or social class.

## Received Pronunciation

This describes the regionally neutral accent used by many middle-class speakers in the UK, particularly in England. It is widely used as a reference point in dictionaries and as a model for teaching English as a foreign language.

**Economic** context is the financial circumstances that surround:

- A character
- A writer
- A society

In a text.

**Culture** refers to a particular 'way of life', involving religion, race, and nationality, as well as things like food, dress code and manners.

**Ideology** refers to the systems of beliefs and ideas that underpin our attitudes and behaviour. Such ideology may be valued by society as a whole or be the basis of conflict. Ideology is a context that is in many ways 'invisible'. This is because our own is largely internalized and normalized, we act accordingly to our assumptions and social norms.

The **historical** context of a text is entangled with its social context, as underlying norms and convention are historically specific. The historical context is important to note especially when large changes have occurred between the time the work was produced, and our current day, so it is not assessed by our own concerns alone.

## Dialect

Dialect refers to a whole group of language features, including pronunciation, but also differences in vocabulary, grammar, and how the language gets used (like the rules of what counts as polite).

I'm eating biscuits in my flat!

I'm eating cookies in my apartment!

## Thesis Statements

Who is the Author?

Name the author **What is the author doing?**

- To question
- To criticise
- To celebrate
- To warn
- To reveal
- To establish

**Who or what are they talking about**

What is the theme, topic, subject?



What is the author saying about class?

What method is the author using to show us his ideas?

Why does he feel it is important to shine a light on this?

- ### Persuasive Techniques
- Ethos
  - Logos
  - Pathos
  - Anecdote
  - Facts/Statistics
  - Emotive language
  - Anaphora
  - Rhetorical Question
  - Tone
  - Triples
  - Conjunctions
  - Hyperbole

### Conjunctions and Other Connectives

When?	Why?	Opinion	But...	And...
afterwards as at that moment finally first just then last later meanwhile soon subsequently then until when	as a result because consequently for this reason so therefore	fortunately happily luckily sadly unfortunately	alternatively although anyway aside from besides but despite however in spite of nevertheless on the other hand since whereas yet	also and as well as in addition moreover with

Form = type

What type of writing might you produce to persuade someone of your viewpoint?

- Newspaper opinion article
- Letter (including open letters to newspapers)
- Speech

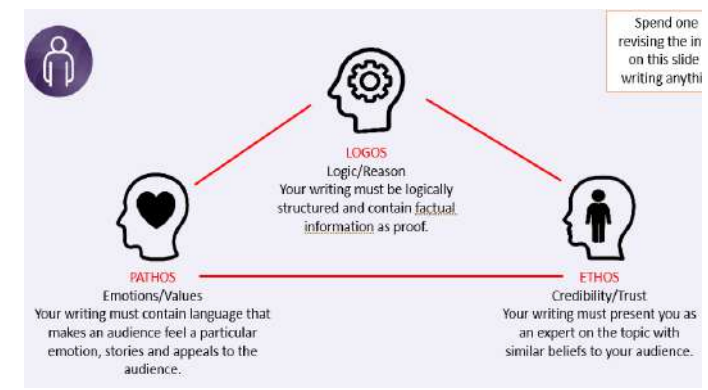
- ### Tentative Language
- Perhaps
  - Suggests
  - Indicates
  - Believes
  - Appears to be
  - Seems to be
  - Saying "many" "some" or "a majority instead of "all"
  - A number of
  - May have been
  - Depending on
  - In general
  - Generally
  - Presumably
  - Unlikely
  - Will/would
  - Can/could
  - Should

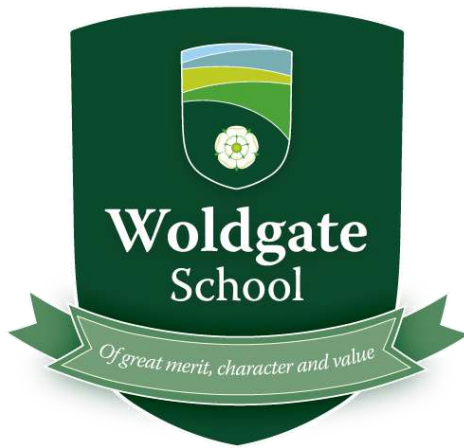
### What is a contextualised embedded quotation?

The author reveals that Robin is brave and without fear. This almost foolhardy presentation positions him as a rebellious Hero. **The text says, "Robin merely laughed it off" and this shows...**



The author reveals that Robin is brave and without fear. This almost foolhardy presentation positions him as a rebellious Hero. **When robin learns he is in danger he, "merely laughed it off" and this shows...**





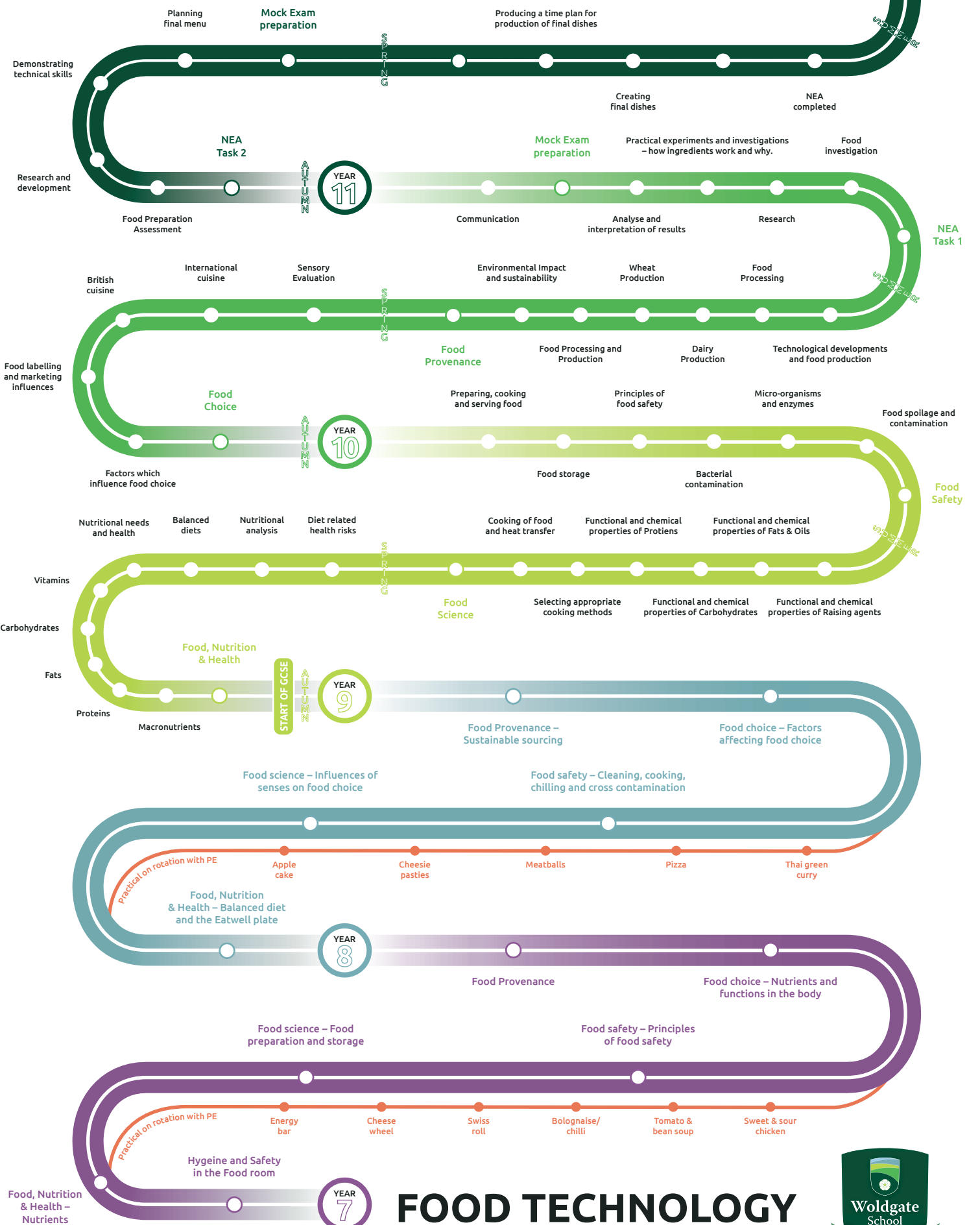
# Food and Nutrition



**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 it's 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

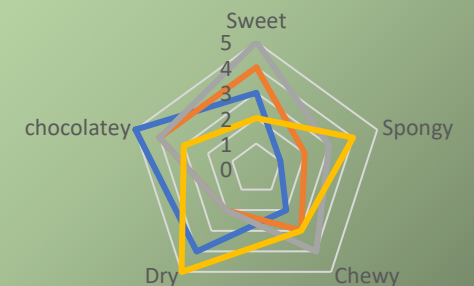
**Tsp** = teaspoon

**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)



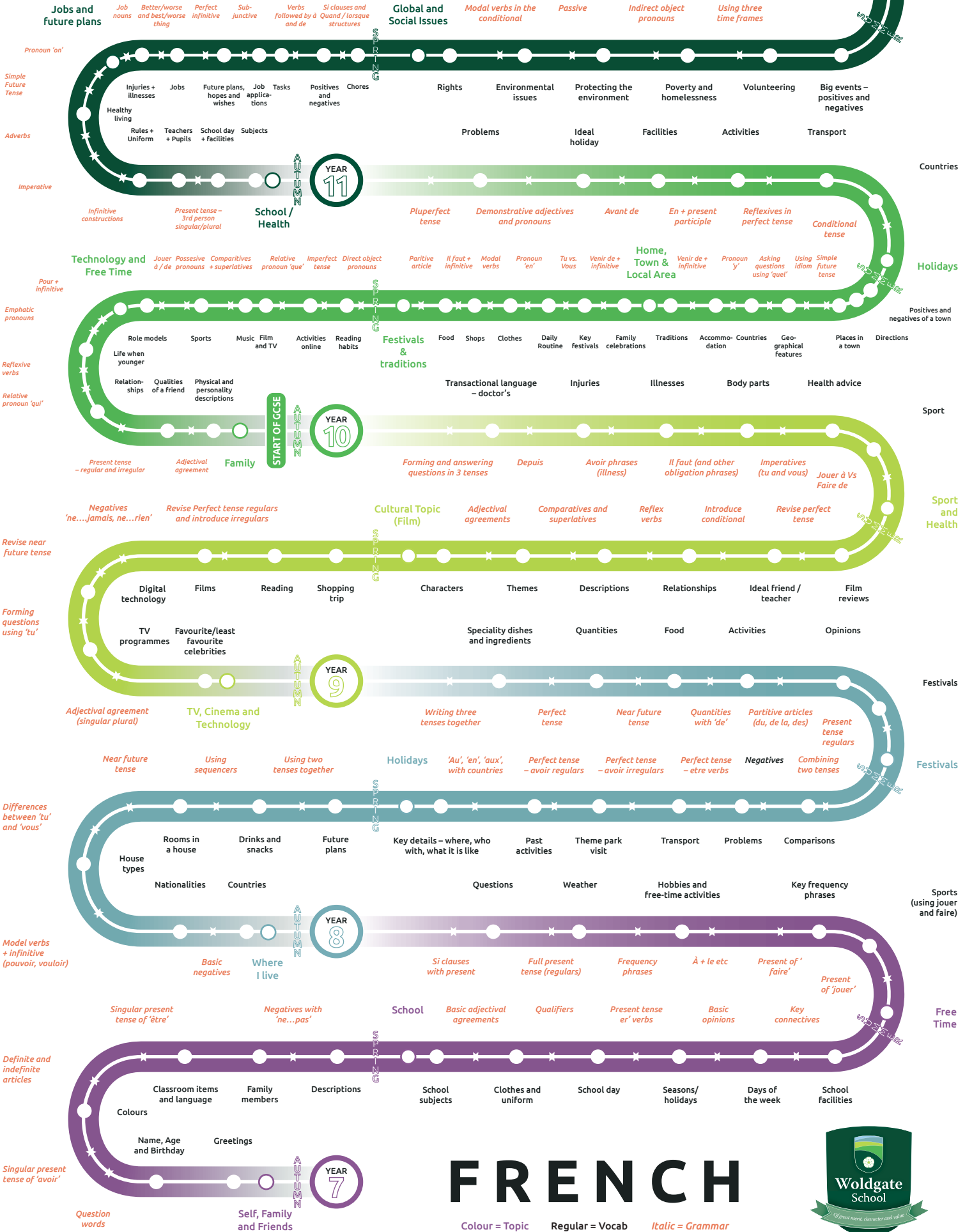


# French



**GCSE EXAMINATIONS**

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



**FRENCH**

Colour = Topic    Regular = Vocab    Italic = Grammar







# Y8 French Knowledge Organiser: Unit 1 'En ville'



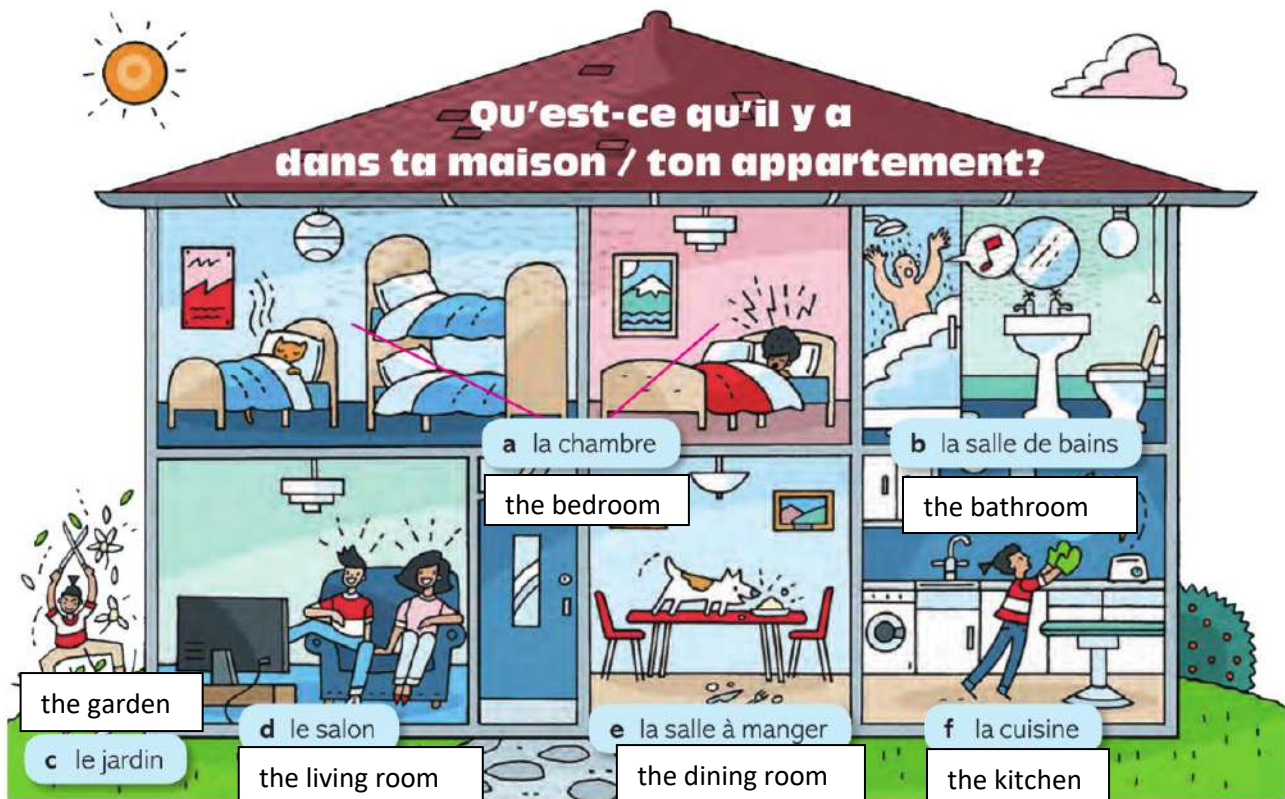
## Ma maison – My house

To / in  
(for a country):

Feminine countries (e.g. Angleterre, Écosse, Irlande): use **en**.  
Masculine countries (e.g. le pays de Galles): use **au**.  
Plural countries (e.g. les États-Unis): use **aux**.

J'habite	dans	un appartement	en Écosse.	J'aime habiter ici	parce que parce qu'	c'est tranquille.
			en Angleterre.			c'est grand.
Nous habitons		une maison	en Irlande du Nord.	Je n'aime pas habiter ici		c'est confortable.
			au pays de Galles.			c'est trop petit.
						il n'y a pas de place.

I live	in	an apartment	in Scotland.	I like living here	because	it is quiet.
			in England.			it is big.
We live		a house	in Northern Ireland.	I don't like living here		it is comfortable.
			in Wales.			it is too small.
						there's no space.



## Ma maison idéale – *My ideal house*

**il y aurait** = there would be

**il n'y aurait pas de** = there would not be

**ce serait** = it would be

**ce ne serait pas** = it would not be

<b>Ma maison idéale</b> My ideal house	<b>serait</b> would be	<b>...grande</b>	big
		<b>...belle</b>	beautiful
		<b>...énorme</b>	enormous
		<b>...chaleureuse</b>	warm
		<b>...douillette</b>	cosy
		<b>...animée</b>	busy
		<b>...calme</b>	quiet
		<b>...propre</b>	clean
		<b>...moderne</b>	modern
<b>Ma maison de rêves</b> My dream house	<b>aurait</b> would have	<b>... une piscine chauffée</b>	a heated pool
		<b>... dix chambres</b>	ten bedrooms
		<b>... cent salles de bain</b>	100 bathrooms
		<b>... un ascenseur</b>	a lift
		<b>... un bassin de requins</b>	a shark pool
		<b>... un hélicoptère</b>	a helipad
		<b>... un terrain de football</b>	a football pitch
		<b>... un dressing</b>	a dressing room

## Ma ville / Mon village – *My town / My village*

Qu'est-ce qu'il y a (What is there)	dans ta ville? (in your town) dans ton village? (in your village)			café (café)	château (castle)	hôtel de ville (town hall)	parc (park)			
Dans ma ville (In my town)	il y a (there is / are)	un (a (m))	centre de loisirs (leisure centre)	cinéma (cinema)	musée (museum)	stade (stadium)	centre commercial (shopping centre)	hôpital (hospital)	marché (market)	théâtre (theatre)
Dans mon village (In my village)	il y avait (there used to be)	une (a (f))	bibliothèque (library)	église (church)	maison des jeunes (youth club)	plage (beach)	cathédrale (cathedral)	gare (station)	patinoire (ice-skating rink)	poste (post office)
Là où j'habite (Where I live)		des (some) plusieurs (several) beaucoup de (lots of)	école (school)	gare routière (bus station)	piscine (swimming pool)	rivière (river)				
Quand j'étais plus jeune (When I was younger)	il n'y a pas de (there isn't a / aren't any)	banques (banks)	hôtels (hotels)	restaurants (restaurants)						
	il n'y avait pas de (there wasn't a / weren't any)	cafés (cafés)	magasins (shops)	supermarchés (supermarkets)						

Il y a **un/une/des** ... There is **a** ... / There are **some** ...  
 Il n'y a pas **de** ... There isn't **a** ... / There aren't **any** ...



# Où vas-tu le weekend? – Where do you go at the weekend?

The verb **aller** (to go) is irregular:

**je vais** I go  
**tu vas** you (singular) go  
**il/elle/on va** he/she goes / we go  
**nous allons** we go  
**vous allez** you (plural or polite) go  
**ils/elles vont** they go

To say where you go with your friends, you can use **on va ...** or **nous allons ...** (we go ...).

At the weekend: **le weekend**

**on Saturday mornings** **le samedi matin**  
**on Saturday afternoons** **le samedi après-midi**  
**on Saturday evenings** **le samedi soir**

**à + le = au**  
**à + la = à la**  
**à + l' = à l'**  
**à + les = aux**

**le parc** → Je vais **au** parc.  
**la plage** → Il va **à la** plage.  
**l'église** → Nous allons **à l'**église.  
**les magasins** → Elles vont **aux** magasins.

Le samedi Le dimanche	matin, après-midi, soir,	je vais au / à la / à l' / aux ...
On Saturday On Sunday	morning afternoon/ evening	I go to the ... (see gender of noun and any appropriate change to à)

Je vais (I go)

Nous allons (We go)

Tu vas (You go)

Vous allez (You all go)

Il va (He goes)

Ils vont (They (m) go)

Elle va (She goes)

Elles vont (They (f) go)

On va (One goes)

au centre commercial (to the shopping centre)

à la montagne (to the mountains)

au centre sportif (to the sports centre)

à la pêche (fishing)

au gymnase (to the gym)

à la piscine (to the swimming pool)

au parc (to the park)

à la plage (to the beach)

à la campagne (to the countryside)

chez des amis (to friends' houses)

tous les samedis  
(every Saturday)

tous les soirs  
(every evening)

tous les week-ends  
(every weekend)

# Qu'est-ce que tu fais en ville? – What do you do in town?

<b>Normalement,</b> Normally,  <b>En général,</b> Generally,  <b>D'habitude,</b> Usually,	<b>je fais</b> I do	du sport (sport) de l'équitation (horseriding) du footing (jogging)	de la natation (swimming) de la randonnée (hiking) du tourisme (sightseeing)	dans les bois (in the woods) dans le centre-ville (in the city centre) au parc (at the park)
	<b>je joue</b> I play	au foot (football) au golf (golf)	au rugby (rugby) au tennis (tennis)	au centre sportif (at the sports centre) au parc (at the park)
	<b>je vais</b> I go	en boîte (clubbing) à un café (to a cafe)	me promener (for a walk (I)) se promener (for a walk (one))	au centre commercial (at the shopping mall) dans les rues piétonnes (in the pedestrian streets) dans la vieille ville (in the old town)
	<b>je vois</b> I see	un concert au théâtre (a concert at the theatre) un spectacle de danse (a dance show)	un match de foot au stade (a football match at the stadium) un film au cinéma (a film at the cinema)	dans le centre-ville (in the city centre) dans le quartier commercial (in the commercial district) dans le quartier touristique (in the tourist district)

# Qu'est-ce que tu vas faire? - What are you going to do?

You use the near future tense to say what you are going to do.

Use the present of the verb **aller** + an **infinitive**.

Je **vais visiter** ...

Tu **vas visiter** ...

Il/Elle/On **va visiter** ...

Nous **allons visiter** ...

Vous **allez visiter** ...

Ils/Elles **vont visiter** ...

Use sequencers to describe a series of activities:

**d'abord** first of all      **ensuite** then / next  
**puis** then / next      **après** after(wards)

À Paris - In Paris  
 Ce weekend - This weekend

Je vais + infinitive =  
 I am going to...

Pendant les vacances  
 (During the holidays)

L'année prochaine  
 (Next year)

Le mois prochain  
 (Next month)

En juin  
 (In June)

En juillet  
 (In July)

En août  
 (In August)

Cet été  
 (This summer)

je vais (I am going)

tu vas (you are going)

il va (he is going)

elle va (she is going)

on va (one is going)

nous allons (we are going)

vous allez (you all are going)

ils vont (they (m) are going)

elles vont (they (f) are going)

acheter des souvenirs (to buy souvenirs)

aller en boîte (to go clubbing)

aller à la plage (to go to the beach)

bronzer (to sunbathe)

danser (to dance)

faire les magasins (to go shopping)

faire de la natation (to go swimming)

faire de la plongée (to go diving)

faire du sport (to do sport)

faire du tourisme (to go sightseeing)

faire du vélo (to go cycling)

jouer avec des amis (to play with friends)

Use the present tense to say what you normally do.

Normalement, le weekend, **je fais les magasins** dans ma ville.

Normally, at the weekend, **I go shopping** in my town.

Use the near future tense to say what you are going to do in the future.

Le weekend prochain, **je vais faire les magasins** à Paris!

Next weekend, **I am going to go shopping** in Paris!

Time phrases are often a clue to the time-frame:









**normalement** (normally) → present tense

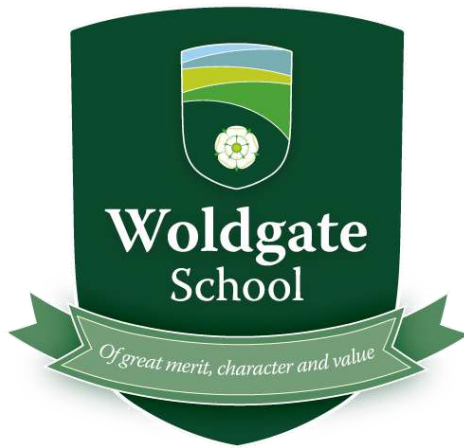
**d'habitude** (usually) → present tense

**le weekend prochain** (next weekend) → future

**samedi prochain** (next Saturday) → future

But sometimes you just have to listen or look for the tense of the verb!

<b>D'habitude, / Normalement, je / j'</b> Usually / Normally I ...	vais ... go		joue ... play	
	fais ... do		écoute ... listen to	
<b>Le weekend prochain, je vais</b> Next weekend, I am going to	visiter ... visit		faire ... do	
	prendre ... take		manger ... eat	



# Geography



**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

Ecosystems and interdependence

Sustaining ecosystems

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

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

Transition to GCSE

START OF GCSE

YEAR 10

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

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

Water cycle

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

Change over time

Measuring development

Distribution of Wealth

YEAR 8

Population change

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**



# DEVELOPMENT

## KNOWLEDGE ORGANISER



### IMPACTS OF THE DEVELOPMENT GAP

### KEY WORDS

<b>Development</b>	The range of ways in which the quality of peoples' lives in a country can be improved
<b>Development Gap</b>	The widening difference in levels of development between the world's richest and poorest countries
<b>GDP</b>	Gross Domestic Product – how much is earned by a country within its borders each year
<b>HDI</b>	Human Development Index – a way of measuring development that combines social and economic data
<b>Aid</b>	The transfer of money, goods and knowledge
<b>FDI</b>	Foreign Direct Investment – when a company invests in a new country
<b>TNC</b>	Transnational Corporations – A company that has operations (factories, offices, research and development, shops) in more than one country
<b>Sustainable Development</b>	Meeting the needs of people now without reducing the ability of future generations to meet their needs

Consequence	Description/ Explanation	Evidence/Example
<b>Disparities in wealth</b>	There are huge variations in wealth which means that the ACs own the majority of the world's money and business. This means they can exploit those in LDCs and take advantage with unfair trade deals.	Africa has just 1% of the world's wealth. North America has 35% of the world's wealth and 5% of its population.
<b>Disparities in health</b>	Health and development are closely linked. The poorest countries cannot afford to invest in high quality healthcare. Deaths in the poorest nations are often in younger people and are things which are curable or preventable in the wealthier nations.	In HICs 1 in 100 deaths are under 15s, but 4 in 10 in LICs 7 in 10 deaths are over 70s in HICs but just 2 in 10 in LICs as people don't live that long.
<b>War</b>	Wars can break out as countries try to seek out resources which could help them to develop	Sudan and South Sudan have been fighting recently over the Heglig oil field.
<b>Migration</b>	International migration is one of the main consequences of uneven development, as people try to improve the quality of their lives they may move from one country to another.	About 1.5 million eastern Europeans moved to the UK between 2004 & 2015. Polish migrants could earn about 5 times more in the UK.

### DEVELOPMENT INDICATORS

Development indicator	What it measures
<b>GDP (Gross Domestic Product)</b>	Wealth made within a country's borders per year
<b>HDI (Human Development Index)</b>	Combined social and economic data
<b>Birth rate</b>	Babies born per 1000 of the population per year
<b>Life expectancy</b>	How long a person can expect to live
<b>Infant mortality rate</b>	Number of babies that die before their 2 <sup>nd</sup> birthday per 1000 per year
<b>Literacy rate</b>	% of adults that can read and write

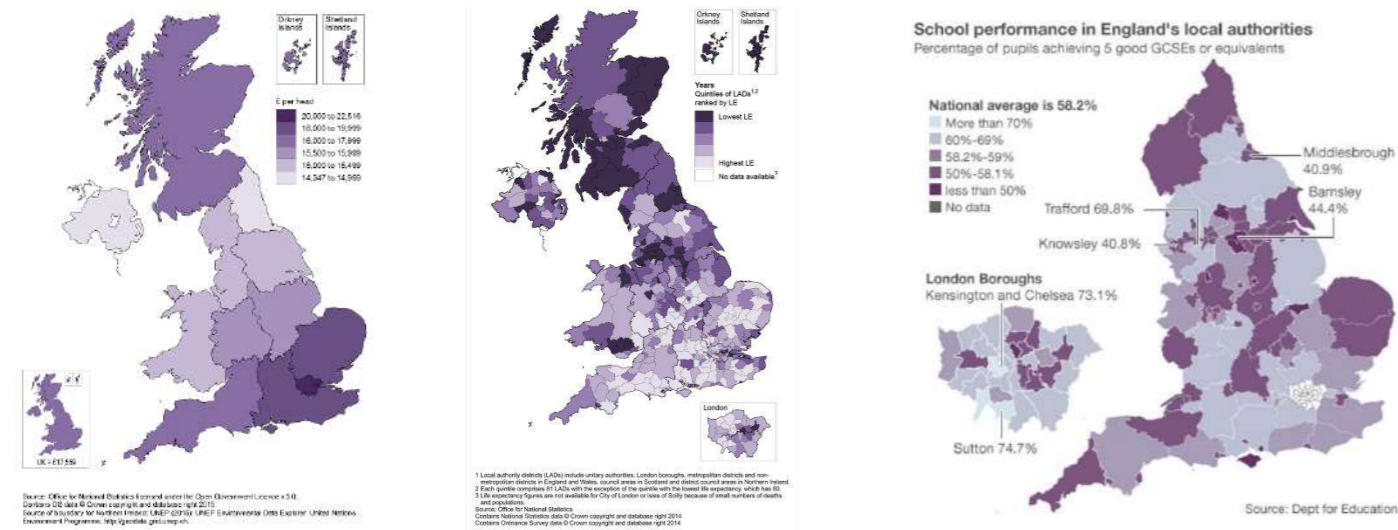
### SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs) or Global Goals are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all". The SDGs were set up in 2015 by the United Nations General Assembly (UN-GA) and are intended to be achieved by 2030.

1. No poverty
2. Zero hunger
3. Good health and wellbeing
4. Quality education
5. Gender Equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry, innovation and infrastructure
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate action
14. Life below water
15. Life on land
16. Peace, justice, and strong institutions.
17. Partnership for the goals

### UK QUALITY OF LIFE

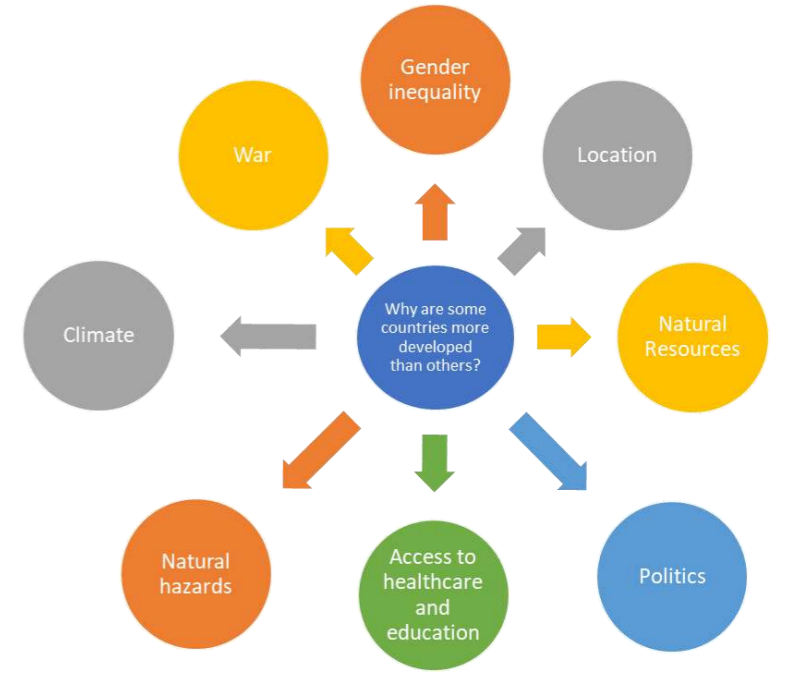
The UK is unequal in terms of income, life expectancy and GCSE scores. There is a north/south divide (the south has better quality of life) but there are some rural-urban differences for education.



### WHY ARE SOME COUNTRIES MORE DEVELOPED THAN OTHERS?

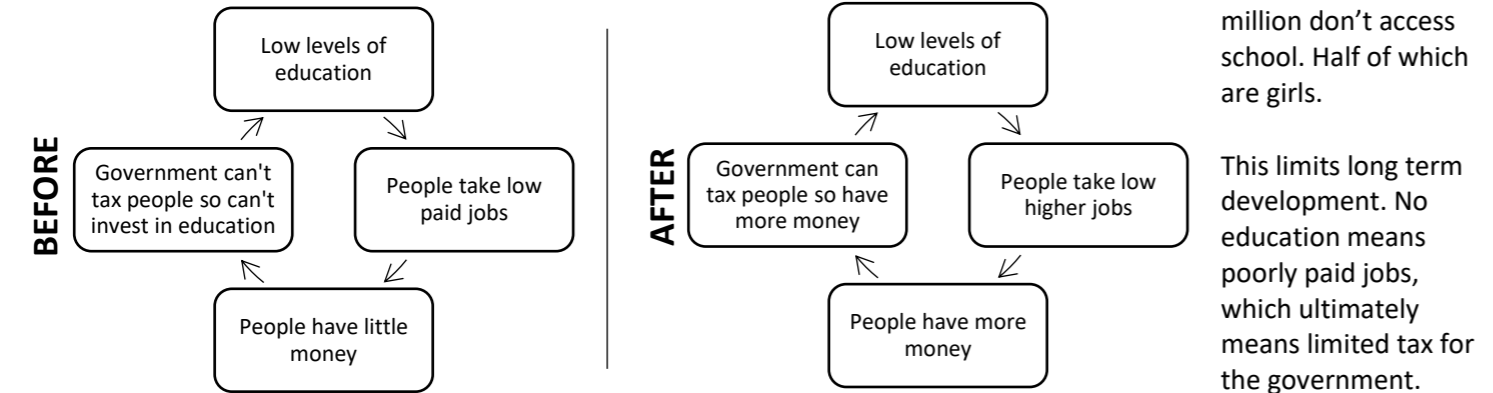
There are a number of reasons as to why some countries are more developed than others:

- \* Gender inequality
- \* Location
- \* Natural resources
- \* Politics
- \* Access to healthcare and education
- \* Natural hazards
- \* Climate
- \* War



Use the mind map to the right to help you remember all the different reasons.

### IMPACT OF EDUCATION



# DEVELOPMENT

## KNOWLEDGE ORGANISER INTRODUCING NIGERIA



### INTRODUCING UGANDA

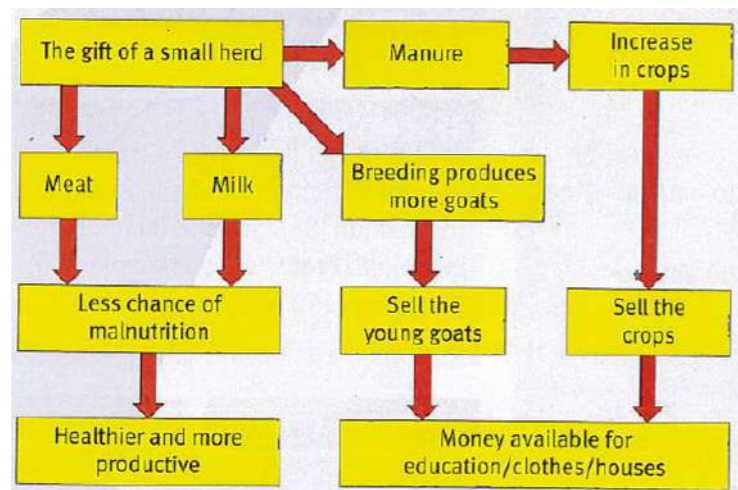
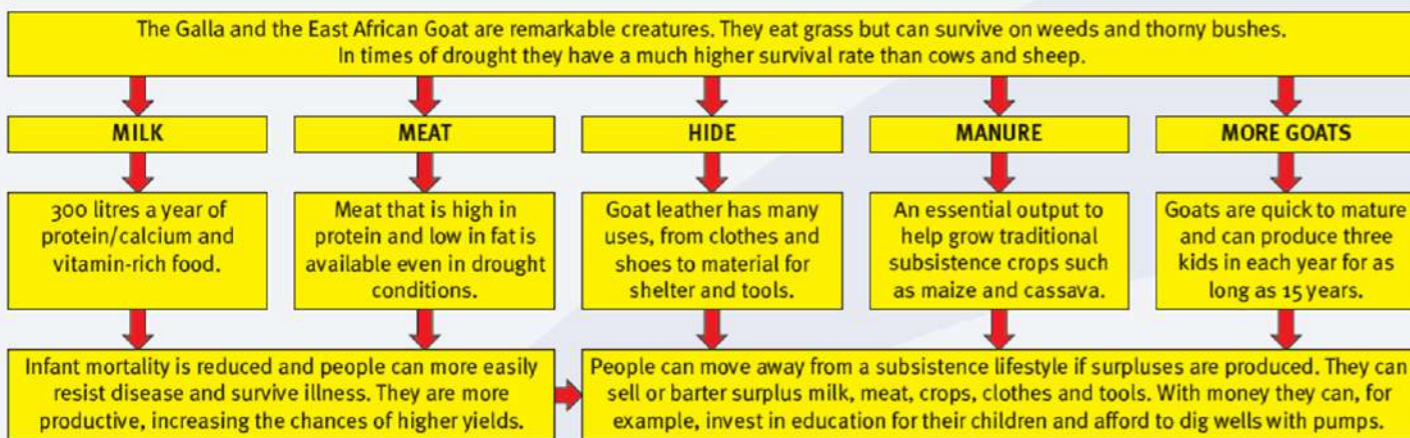


#### About Uganda:

Uganda is located in eastern Africa, west of Kenya, south of South Sudan, east of the Democratic Republic of the Congo, and north of Rwanda and Tanzania. While much of its border is lakeshore, Uganda is landlocked with no access to the sea but it is a fertile and well-watered country that consists of many lakes and rivers including the largest, Lake Victoria.

Development Indicator	Uganda	UK
GDP per Capita – The money made by a country, divided between the population	\$1,544	\$40,284
Life Expectancy – how long you are expected to live	59	81
Infant Mortality – Number of deaths below the age of 1, per 1000 people, per year	106	4
Literacy Rate – How many people can read and write	73%	99%

**Goat-Aid in Uganda:** People in poverty such as subsistence farmers (farmers who only grow enough to feed themselves), and orphans are sometimes given a pair/small group of goats by a charity such as OXFAM. The goats provide a source of milk, manure and fertilizer immediately and in the longer term more goats can be bred. Surplus produce can be sold, providing an important source of income.



Nigeria is located in the West of Africa. It is north of Cameroon and south of Niger. It is 8 degrees N latitude and 8 degrees East Longitude. Nigeria has vast amounts of oil and a population of over 200 million. It is a developing nation. This has attracted oil companies like Shell to Nigeria as it can extract and process the oil there and there is a vast population of people who will work for low wages in the factories where oil is processed and refined.



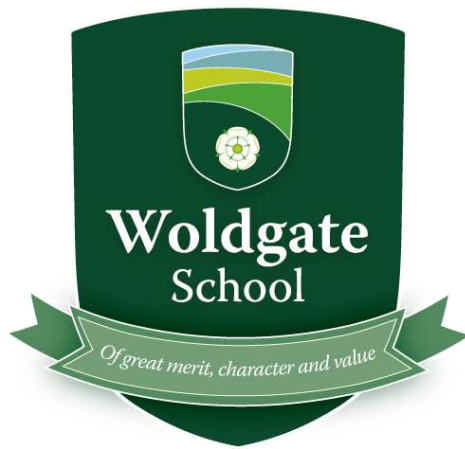
Logo of Shell

1. The jobs in TNCs are not secure. The people could lose their jobs without warning if the company decides to invest elsewhere or move their factories to somewhere cheaper.	2. TNCs often set up charities to help local people. For example, Shell have set up the Shell foundation which has opened schools and doctors surgeries in the villages of Nigeria.	3. The environment is often damaged. Shell have caused several oil spills in Nigeria. This pollutes the water, and they refuse to pay to clean it up.
4. TNCs create jobs for people. 6000 people are employed by Shell in Nigeria.	5. Most of the profits go back to Shell. Shell had profits of over \$6.4 billion dollars in 2021. The majority of this money leaves Nigeria.	6. Shell pays tax to the Nigerian government for having its factories there.
7. The workers are paid very little and often work long hours. They are exploited and do not earn enough to have a good life.	8. Foreign workers come in to do the managerial jobs. The most well-paid jobs are not given to the Nigerian people.	9. Shell have built roads and other infrastructure has been put in place. This could attract other companies there.

### TYPES OF AID

Type of Aid	Definition	Examples
<b>Emergency relief or short-term aid</b>	Help given to alleviate the impact of a disaster	Bottled water, tents and blankets sent after an earthquake
<b>Voluntary aid</b>	Money raised by non-governmental organisations by appealing to the public	Funds raised by Oxfam, Save The Children, Christian Aid.
<b>Developmental/long-term aid</b>	Help given over many years to make a lasting difference to people's standard of living	Many of Comic Relief's projects in Africa fall into this category
<b>Multilateral aid</b>	Help given by many different organisations but channelled through one organisation, for example the World Bank	The Brandt Report (1980) suggested that every country should give 0.7% of its GDP into a common purse.
<b>Tied aid</b>	Money or help given with conditions attached to it, e.g. that it can only be spent in the donor country.	The Pergau Dam project in Malaysia

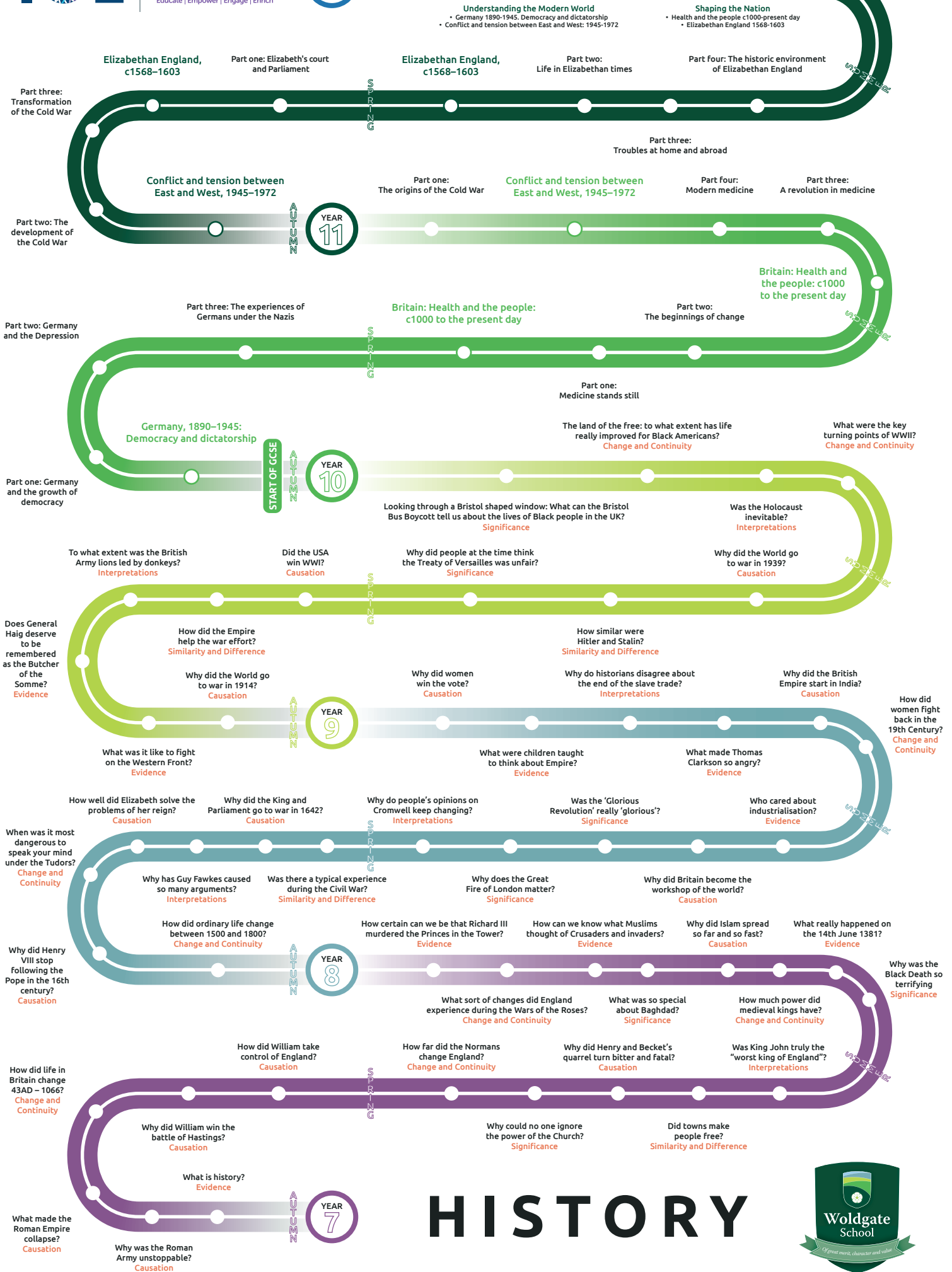




# History



**GCSE EXAMINATIONS**



**HISTORY**



# THE TUDORS

## KNOWLEDGE ORGANISER



### KEY WORDS

Heir	Next in line to the throne (usually child of the monarch).
Excommunicate	When the Pope kicks you out of the Catholic Church.
Illegitimacy	Born to unmarried parents (so not allowed to be monarch).
Legitimacy	Born to married parents and recognised by Catholic Church.
Catholicism	A branch of Christianity that likes decorated churches and believes the Pope is Head of the Church.
Protestantism	A branch of Christianity created by Luther that has plain churches and believes the monarch is Head of the Church.
Puritan	An extreme Protestant.
Reformation	The changing (reforming) of the English Church under Henry VIII from Catholic to Protestant.
Recusant	A Catholic who refuses to follow the Protestant way.
Monarch	The king or queen.
Pope	The leader of the Catholic Church.
Execution	Killing someone legally for not following the law.
Indulgences	Catholic: Paying for your sins to get into heaven.

### EDWARD VI, MARY I & ELIZABETH I

#### \* Edward VI:

- \* Edward VI continued his father's legacy as a Protestant
- \* He introduced the English Prayer Book, and services were in English
- \* Churches were made to be less grand, with paintings and stained-glass windows removed. This upset many people, and some ignored the rules altogether

#### \* Mary I:

- \* Edward was crowned King aged 9, and died at 15. He named Lady Jane Grey as his heir, but she was deposed by his half-sister, Mary
- \* Mary I reversed these reforms, and changed the religion back to Catholicism. She burned Protestants at the stake. It was dangerous to be Protestant at this time

#### \* Elizabeth I:

- \* Elizabeth tried to find a 'middle way'. Both Catholics and Protestants were rarely satisfied with this. Strict Catholics and Puritans were often treated harshly

### MARTIN LUTHER

- \* Martin Luther was the founder of Protestantism. He wrote 95 things that the Catholic Church was wrong about (including having a Pope)
- \* He was almost killed by Catholics following a meeting with the German Emperor
- \* He continued to publish his Protestant ideas and some people decided to break away from the Catholic Church

### PROTESTANTS AND CATHOLICS

Protestants	Catholics
<ul style="list-style-type: none"><li>* Churches should be simple and plain, to bring people closer to God</li><li>* Ministers should wear simple clothes as they are ordinary people</li><li>* Jesus is the head of the Church</li><li>* If you do not worship in the right way, you will go to hell for eternity</li></ul>	<ul style="list-style-type: none"><li>* Churches should be decorated with paintings and coloured windows</li><li>* Priests should wear special clothes to show their relationship with God</li><li>* The Pope is the head of the Church</li><li>* If you do not worship in the right way, you will go to hell for eternity</li></ul>

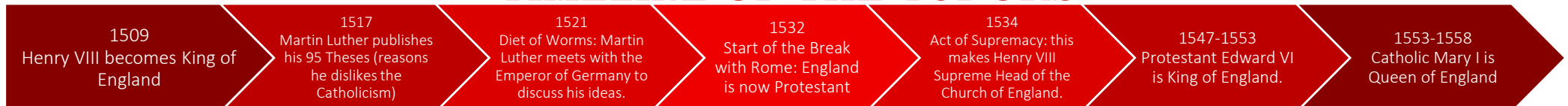
### HENRY VIII

- \* In 1509, Henry married Catharine of Aragon. He and Catherine had a baby daughter, Mary, but no sons, which Henry wanted
- \* Henry wanted to divorce Catherine and marry Anne Boleyn
- \* The Pope refused to grant Henry a divorce. Anne had introduced Henry to the idea of Protestantism. In 1534, the Act of Supremacy was passed, and Henry was the Supreme Head of the Church of England
- \* Henry needed to raise money to pay for several wars. To do this, between 1536 and 39, Henry closed down all the monasteries in England
- \* His new role meant he no longer had to share power with the Pope

### MONASTERIES

- \* Monasteries were deeply special places for many people
- \* They were the centre of many people's lives. They provided a place to worship, and also a place where the sick and poor were helped, and orphans lived
- \* Monasteries were a source of income for many people too. They were often rich places, and provided lots of jobs for the local area

### TIMELINE OF THE TUDORS



# ELIZABETH I

## KNOWLEDGE ORGANISER



### KEY WORDS

<b>Protestantism</b>	A branch of Christianity created by Luther that has plain churches and believes the monarch is Head of the Church
<b>Catholicism</b>	A branch of Christianity that likes decorated churches and believes the Pope is Head of the Church
<b>Excommunicate</b>	When the Pope kicks you out of the Catholic Church
<b>Recusant</b>	A Catholic who refuses to go to Protestant church
<b>Puritanism</b>	An extreme Protestant
<b>Settlement</b>	An agreement that hopes to please both sides.
<b>Figurehead</b>	A leader with no real power
<b>Armada</b>	A fleet of ships
<b>Radical</b>	Extreme
<b>Vagabond</b>	A very poor person without a home
<b>Regent</b>	A person/group ruling because the monarch is a child
<b>Suitor</b>	A potential husband or wife
<b>Propaganda</b>	Information or a painting designed to promote a specific idea

### PROBLEMS FACING ELIZABETH

1. **Mary Queen of Scots** – some people thought she would try to claim the throne
2. **Looks** – as she got older, Elizabeth’s hair went grey and teeth began to rot
3. **France** – England was at war with France which was costing a lot of money
4. **The Pope** – Elizabeth had to decide whether to follow Catholicism or Protestantism
5. **Money** – Elizabeth started her reign with huge debts
6. **Starvation** – there were food shortages and unemployment across England
7. **Heir** – Elizabeth was not married and had no children to succeed her
8. **Protestants** – Catholic bishops wanted to keep burning Protestants at the stake
9. **Archbishop of Canterbury** – the old Archbishop had just died, and a new leader was needed. However, without one, Elizabeth could take taxes from his lands

### THE ISSUE OF MARRIAGE

- \* There were 5 possible suitors:
  1. Robert Devereux
  2. Prince William of Orange
  3. Robert Dudley
  4. Francis, Duke of Alencon
  5. Phillip II of Spain
- \* Elizabeth never married
- \* She claimed to be married to her kingdom and subjects
- \* Many believe she wanted to be free of foreign influence, or to make sure no man could take her power

### PORTRAITS AND PROPAGANDA

- \* Elizabeth had portraits made of herself to improve her image
- \* They portrayed her as royal, powerful, pure, wise and wealthy
- \* She was often shown as ageless – an example of this is the Rainbow Portrait
- \* Portraits can show us how someone wanted to be seen at the time, what they thought of themselves and what the person valued at the time
- \* However, they can’t show us how they felt, how powerful they really were, or how the person looked at the time

### RELIGIOUS SETTLEMENT

- \* This was a compromise aimed at pleasing both sides
- \* It was a complex agreement, which took different things from both sides:

Protestant Elements	Catholic Elements
<ul style="list-style-type: none"> <li>* Elizabeth was the Supreme Governor</li> <li>* No mass</li> <li>* Services and Prayer Book in English</li> </ul>	<ul style="list-style-type: none"> <li>* Wafers could be used</li> <li>* Churches could be slightly decorated</li> <li>* Only fined recusants</li> </ul>

### MARY QUEEN OF SCOTS

- \* Elizabeth thought Mary was plotting against her
- \* When Mary fled rebellion in Scotland, she was imprisoned for 19 years in England
- \* In 1587, Elizabeth approved her beheading

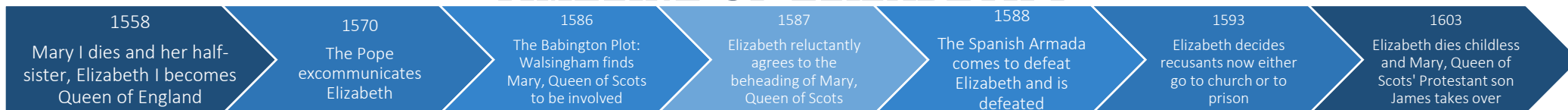
### THE SPANISH ARMADA

In 1588 the Spanish Armada set sail to England to replace Elizabeth and make England Catholic again. Elizabeth’s ‘pirates’ looting Spanish ships and her support of Dutch rebels had pushed Philip to this. In the end, due to a combination of weather, bad Spanish luck and good English tactics, the Spanish were thoroughly destroyed.

### THE POOR

- \* The number of vagabonds was growing in England due to monasteries being closed down and changes to farming and industry meant more people were unemployed
- \* The poor were split into three groups: the impotent poor (old/sick people) were sent to poor houses, the able-bodied poor were sent to a workhouse to live and work, and the idle poor were sent to a poor house to be punished

### TIMELINE OF ELIZABETH I



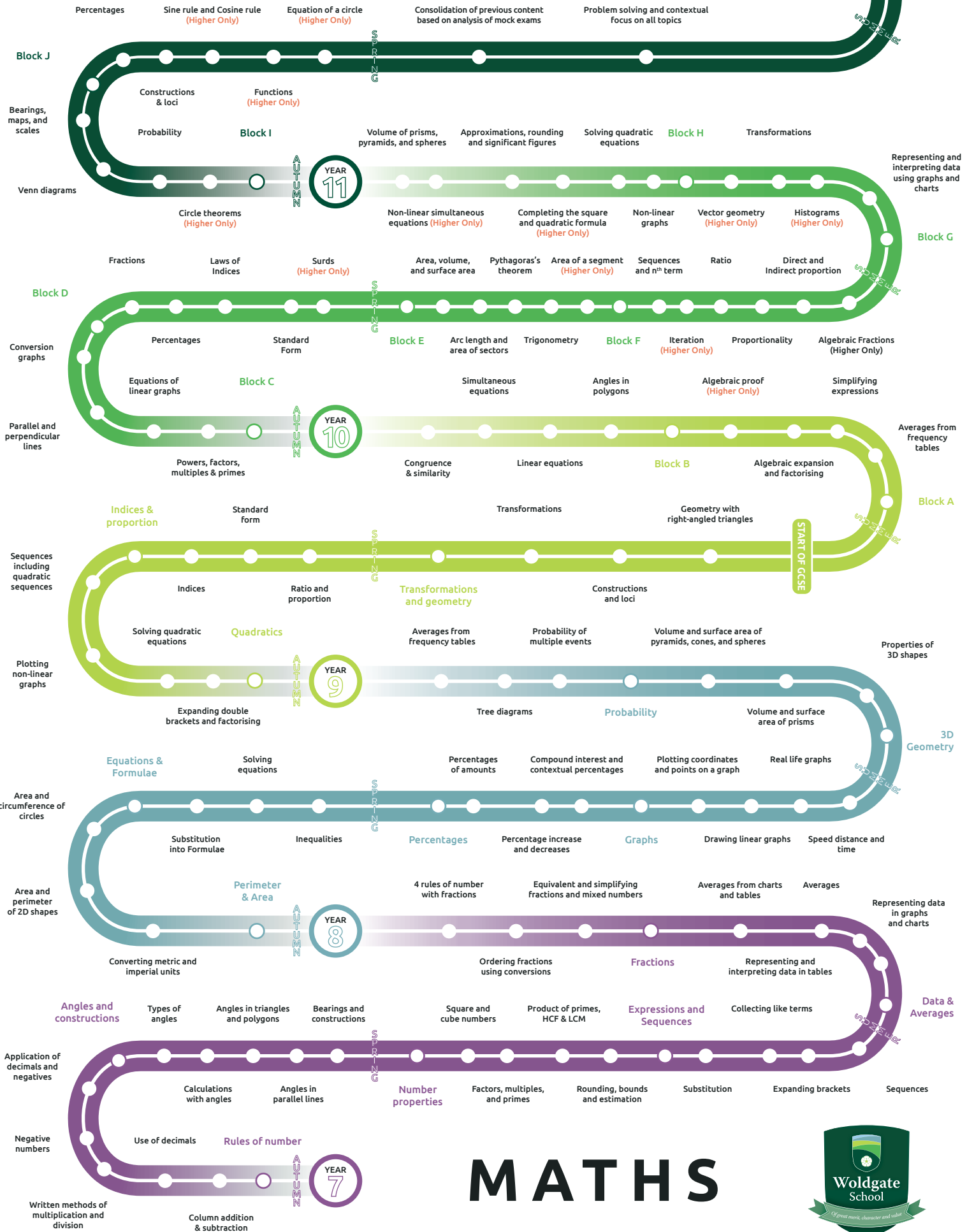


# Maths



# GCSE EXAMINATIONS

3 papers – 1 non-calculator and 2 calculator papers

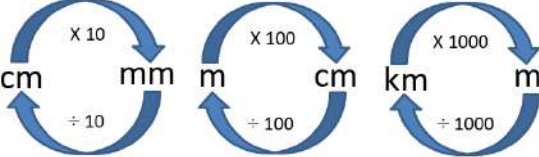
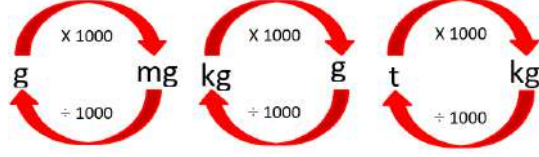
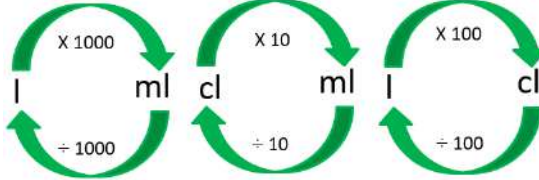


# MATHS



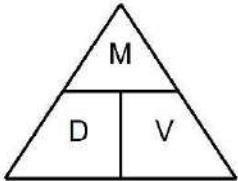
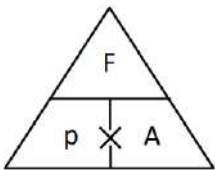

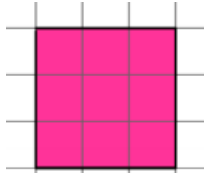
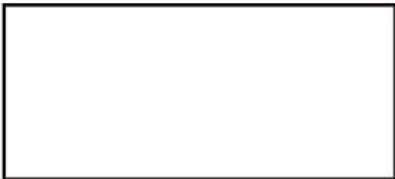
# Year 8 – Autumn 1, Perimeter and Area



Topic/Skill	Definition/Tips	Example
Converting between metric lengths	Metric lengths are mm, cm, m, km $10 \text{ mm} = 1 \text{ cm}$ $100 \text{ cm} = 1 \text{ m}$ $1000 \text{ mm} = 1 \text{ m}$ $1000 \text{ m} = 1 \text{ km}$ 	Convert 632 cm into metres: $632 \div 100 = 6.32 \text{ m}$  Convert 632 cm into millimetres: $632 \times 10 = 6320 \text{ mm}$
Converting between metric masses	Metric masses are milligrams, grams, kilograms and tonnes (mg, g, kg, t) $1000 \text{ mg} = 1 \text{ g}$ $1000 \text{ g} = 1 \text{ kg}$ $1000 \text{ kg} = 1 \text{ tonne}$ 	Convert 5.8 kg into grams: $5.8 \times 1000 = 5800 \text{ g}$  Convert 587 kg into tonnes: $587 \div 1000 = 0.587 \text{ t}$
Converting between metric capacities (volumes)	Metric capacities are millilitres, centilitres and litres (ml, cl and l) $10 \text{ ml} = 1 \text{ cl}$ $100 \text{ cl} = 1 \text{ l}$ $1000 \text{ ml} = 1 \text{ l}$ $1 \text{ cm}^3 = 1 \text{ ml}$ 	Convert 21 l into ml: $21 \times 1000 = 21000 \text{ ml}$  Convert 840 cl into litres: $840 \div 100 = 8.4 \text{ l}$
Imperial measures	A system of weights and measures originally developed in England, but now mostly used in USA as Europe and UK have mainly switched to metric measures.	<b>Length:</b> inch, foot, yard, miles  <b>Mass:</b> pound (lb), ounce (oz), stone  <b>Volume:</b> pint, gallon
Converting between metric and imperial measures	Use the given conversion rate by multiplying or dividing both sides to get the amount you need.  $5 \text{ miles} \approx 8 \text{ kilometres}$ $1 \text{ gallon} \approx 4.5 \text{ litres}$ $2.2 \text{ pounds} \approx 1 \text{ kilogram}$ $1 \text{ inch} = 2.5 \text{ centimetres}$	Convert 15 miles into km: $\times 3 \left\{ \begin{array}{l} 5 \text{ miles} \approx 8 \text{ kilometres} \\ 15 \text{ miles} \approx 24 \text{ kilometres} \end{array} \right. \times 3$  Convert 10 litres into gallons: $\div 4.5 \left\{ \begin{array}{l} 1 \text{ gallon} \approx 4.5 \text{ litres} \\ 0.222 \text{ gallons} \approx 1 \text{ litre} \end{array} \right. \div 4.5$ $\times 10 \left\{ \begin{array}{l} 2.2 \text{ gallons} \approx 10 \text{ litres} \end{array} \right. \times 10$

# Year 8 – Autumn 1, Perimeter and Area



Speed	<p><b>Speed = Distance ÷ Time</b>  <b>Distance = Speed x Time</b>  <b>Time = Distance ÷ Speed</b></p> <p>Speed is the measure of how far something can go in a particular time.</p> <p><b>mph</b> stands for miles per hour  <b>m/s</b> stands for metres per second</p>	<p>Speed = 4mph means 4 miles takes 1 hour</p> <p>A car travelling at 30 mph for 1½ hours travels 30 + 15 = 45 miles</p> <p>An athlete who takes 2 minutes to run 480 metres runs at an average speed of 4 m/s  <i>480 metres in 120 seconds</i>  <i>48 metres in 12 seconds</i>  <i>4 metres in 1 seconds</i></p>
Density, Mass, Volume	<p><b>Density = Mass ÷ Volume</b>  <b>Mass = Density x Volume</b>  <b>Volume = Mass ÷ Density</b></p> <div style="text-align: center;">  </div> <p>Remember the correct units, e.g. kg/m<sup>3</sup></p>	<p>Density = 8kg/m<sup>3</sup>                  Mass = 2000g</p> <p>Find the Volume.                  Firstly make sure the units match:                  2000g = 2kg</p> $V = M \div D = 2 \div 8 = 0.25m^3$
Pressure, Force, Area	<p><b>Pressure = Force ÷ Area</b> (Pascal, Pa)  <b>Force = Pressure x Area</b> (newtons, N)  <b>Area = Force ÷ Pressure</b></p> <div style="text-align: center;">  </div>	<p>Pressure = 10 Pascals                  Area = 6cm<sup>2</sup></p> <p>Find the Force</p> $F = P \times A = 10 \times 6 = 60 N$
Perimeter	<p>The total distance around the outside of a shape.</p> <p>Add up <b>every side</b> of the shape.                  Since perimeter is a total length, units include: mm, cm, m etc.</p>	<div style="text-align: center;">  </div> $P = 8 + 5 + 8 + 5 = 26 cm$
Area	<p>The amount of space inside a 2D shape.</p> <p>If drawn on a grid you can count the squares inside the shape.</p> <p>Units include: mm<sup>2</sup>, cm<sup>2</sup>, m<sup>2</sup></p>	<div style="text-align: center;">  </div> <p>Area : 9 squares</p>
Area of a Rectangle	<p><b>Length x Width</b></p> <p>This is the same as <b>Base x Height</b></p>	<div style="text-align: center;">  </div> $A = 9 \times 4 = 36cm^2$




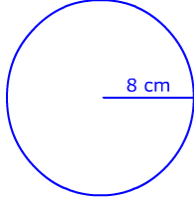
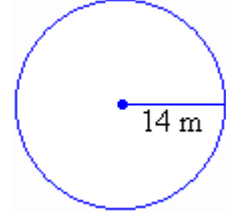
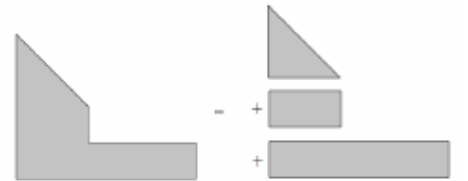
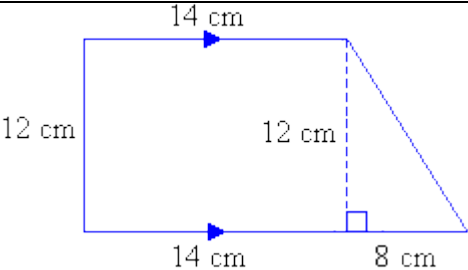
# Year 8 – Autumn 1, Perimeter and Area



<p>Parallelogram</p>	<p>A parallelogram has <b>two</b> pairs of parallel sides.</p>	
<p>Perpendicular height</p>	<p>The measurement that makes a right angle with the base. It can be labelled inside or outside the shape.</p>	
<p>Area of a Parallelogram</p>	<p><b>Base x Perpendicular Height</b> <i>Not the slanted height.</i></p>	<div style="float: right;"> <math display="block">\begin{aligned} \text{Area} &amp;= 3 \times 7 \\ &amp;= 21\text{cm}^2 \end{aligned}</math> </div>
<p>Area of a Triangle</p>	<p style="text-align: center;"><u><math>\text{Base} \times \text{Perpendicular Height}</math></u> <b>2</b></p> <p>A triangle covers half the area of a rectangle with the same base and perpendicular height.</p>	<div style="float: right;"> <math display="block">\begin{aligned} \text{Area} &amp;= \frac{12 \times 4}{2} \\ &amp;= 24\text{cm}^2 \end{aligned}</math> </div>
<p>Trapezia/ Trapeziums</p>	<p>A trapezium is a quadrilateral with just one pair of parallel sides.</p>	
<p>Area of a trapezium</p>	<p style="text-align: center;"><math>\frac{(a + b)}{2} \times h</math></p> <p>“Half the sum of the parallel side, times the height between them. That’s the way you calculate the area of a trapezium”</p> <p>Use <b>perpendicular height</b></p>	<p>Parallel lines sum to 22 Half this is 11 11 x perpendicular height = 11 x 5 = 55</p> <div style="float: right;"> <math display="block">A = 55\text{cm}^2</math> </div>
<p>Parts of a Circle</p>	<p><b>Radius</b> – the <b>distance</b> from the <b>centre</b> of a circle to the <b>edge</b></p> <p><b>Diameter</b> – the total <b>distance</b> across the <b>width</b> of a circle <b>through the centre</b>.</p> <p><b>Circumference</b> – the <b>total distance</b> around the <b>outside</b> of a circle</p>	<div style="display: flex; justify-content: space-around; text-align: center;"> <div>Radius</div> <div>Diameter</div> <div>Circumference</div> </div>

# Year 8 – Autumn 1, Perimeter and Area



<p>Radius and Diameter</p>	<p>The <b>diameter</b> is always double the <b>radius</b></p>	<p>If the radius is 5m, the diameter will be 10m If the diameter is 50cm, the radius will be 25cm</p>
<p><math>\pi</math> ('pi')</p>	<p>Pi is the circumference of a circle divided by the diameter. <math>\pi \approx 3.14</math> You will need to round any answers when using <math>\pi</math> in a calculation.</p>	
<p>Circumference of a circle</p>	<p>Circumference is the total distance around a circle, so it is a circle's perimeter.  Circumference = diameter <math>\times</math> <math>\pi</math></p>	 <p>radius = 8 cm diameter = 16 cm circumference = <math>16 \times \pi = 50.3</math> cm (1 d.p.)</p>
<p>Area of a circle</p>	<p>Area of a circle = radius<sup>2</sup> <math>\times</math> <math>\pi</math></p>	 <p>radius = 14 m diameter = 28m area = <math>14^2 \times \pi = 615.8</math>cm<sup>2</sup> (1 d.p.)</p>
<p>Compound Shape</p>	<p>A shape made up of a <b>combination of other known shapes</b> put together. To find its area, break it up into the known shapes to find their areas and then <b>add</b> these up.</p>	  <p>Rectangle area = <math>12 \times 14 = 168</math> Triangle area = <math>8 \times 12 \div 2 = 48</math> Total area = <math>168 + 48 = 216</math></p>

## Year 8 – Autumn 2, Equations



Topic/Skill	Definition/Tips	Example												
Variable	A letter in an algebraic expression is called a <b>variable</b> because its value can change (vary).	$6x + 8y$ contains the variables $x$ and $y$												
Coefficient	How many of the <b>variable</b> you have/a number multiplied by the variable.	$6x + 8y^2$ The coefficient of $x$ is 6 The coefficient of $y^2$ is 8												
Formula	Shows the relationship between two or more <b>variables</b> . It must contain an = sign and at least 2 variables.	$A = \pi r^2$ $Speed = \frac{Distance}{Time}$												
Substitute	Substitute means to replace variables with numbers and then work out the value of the calculation. Remember to follow <b>BIDMAS</b> .	Evaluate $3a - 2b + c$ when $a = 3, b = 2$ and $c = 5$ $3a - 2b + c = 3 \times 3 - 2 \times 2 + 5$ $= 9 - 4 + 5$ $= 10$												
Equation	An <b>equation</b> will have an = sign. The expression on the left of the = will be worth the same as the expression on the right of the =.	$3 + x = 18$ $2 + 45 = 47$ $x^2 + 5x - 9 = 0$ $18 = 2a + 12$												
Inverse Operations	An inverse operation reverses the effect of the first operation.	<table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr> <th>Operation</th> <th>Inverse</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">+</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">+</td> </tr> <tr> <td style="text-align: center;">×</td> <td style="text-align: center;">÷</td> </tr> <tr> <td style="text-align: center;">÷</td> <td style="text-align: center;">×</td> </tr> <tr> <td style="text-align: center;"><math>x^2</math></td> <td style="text-align: center;"><math>\sqrt{x}</math></td> </tr> </tbody> </table> <div style="display: inline-block; vertical-align: middle;"> <math>6 + 4 = 10</math>  <math>10 - 4 = 6</math> </div>	Operation	Inverse	+	-	-	+	×	÷	÷	×	$x^2$	$\sqrt{x}$
Operation	Inverse													
+	-													
-	+													
×	÷													
÷	×													
$x^2$	$\sqrt{x}$													
Solving equations	Use <b>inverse operations</b> on both sides of the equation (balancing method) until you find the value for the letter.  Tackle each operation in the <b>reverse</b> order that you would for substitution.  You can check your solution is correct by substituting it back into the original equation to see if it works.	$\frac{y}{3} + 4 = 34$ $\quad -4 \quad -4$ $\frac{y}{3} = 30$ $\quad \times 3 \quad \times 3$ $y = 90$												
Solving Equations which contain brackets	Expand the brackets first, then solve.  Remember, you haven't changed the equation by expanding brackets so the other side can stay the same.	$2(x + 6) = 18$ $2x + 12 = 18$ $\quad -12 \quad -12$ $2x = 6$ $\quad \div 2 \quad \div 2$ $x = 3$												

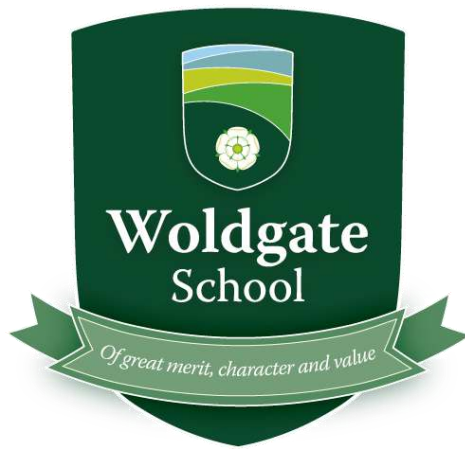
## Year 8 – Autumn 2, Equations



<p>Equations when the variable is on both sides of the =</p>	<p>If x is on both sides of the equals, you need to add or subtract the same amount of x from both sides in order to eliminate x from one side.</p>	$5x + 4 = 8x - 11$ $\begin{array}{r} -5x \quad -5x \\ 4 = 3x - 11 \\ +11 \quad +11 \\ 15 = 3x \\ \div 3 \quad \div 3 \\ x = 5 \end{array}$
<p>Constructing Equations</p>	<p>You can create equations from wordy or shape problems by representing unknown values with variables (letters) and creating equations using the clues in the question.</p>	<p>Amy, Beth and Claire are sisters. Beth is 2 years older than Amy and Claire is twice as old as Amy. Their combined age is 46, create an equation for Amy's age:          Amy (x), Beth (x+2), Claire (2x)  <math>x + x + 2 + 2x = 46</math>  <math>4x + 2 = 46</math></p>
<p>Simultaneous Equations</p>	<p>Simultaneous equations are two equations, with two variables that are solved by the same solution.</p>	$2x + y = 7$ $3x - y = 8$ <p>Solution: <math>x = 3, y = 1</math></p>
<p>Solving Simultaneous Equations (by elimination)</p>	<ol style="list-style-type: none"> <li>Balance the coefficients of one of the variables by multiplying one or both of the equations by a number.</li> <li>Eliminate this variable by adding or subtracting the equations</li> <li>Solve the linear equation you get left with.</li> <li>Substitute the value you found back into one of the previous equations.</li> <li>Solve the equation you get.</li> <li>Check that the two values you get satisfy both of the original equations.</li> </ol>	$5x + 2y = 9$ $10x + 3y = 16$ <p>Multiply the first equation by 2.</p> $10x + 4y = 18$ $10x + 3y = 16$ <p>Subtract: <math>y = 2</math>          Substitute <math>y = 2</math> into first equation.  <math>5x + 2 \times 2 = 9</math>  <math>5x + 4 = 9</math>  <math>5x = 5</math>  <math>x = 1</math>          Solution: <math>x = 1, y = 2</math></p>
<p>Solving Simultaneous Equations (by Substitution)</p>	<ol style="list-style-type: none"> <li><b>Rearrange</b> one of the equations into the form <math>y = \dots</math> or <math>x = \dots</math></li> <li><b>Substitute</b> the right-hand side of the rearranged equation into the other equation.</li> <li>Expand and <b>solve</b> this equation.</li> <li><b>Substitute</b> the value into the <math>y = \dots</math> or <math>x = \dots</math> equation.</li> <li><b>Check</b> that the two values you get satisfy both of the original equations.</li> </ol>	$y - 2x = 3$ $3x + 4y = 1$ <p>Rearrange: <math>y - 2x = 3 \rightarrow y = 2x + 3</math>          Substitute: <math>3x + 4(2x + 3) = 1</math>          Solve: <math>3x + 8x + 12 = 1</math>  <math>11x = -11</math>  <math>x = -1</math>          Substitute: <math>y = 2 \times -1 + 3</math>  <math>y = 1</math>          Solution: <math>x = -1, y = 1</math></p>



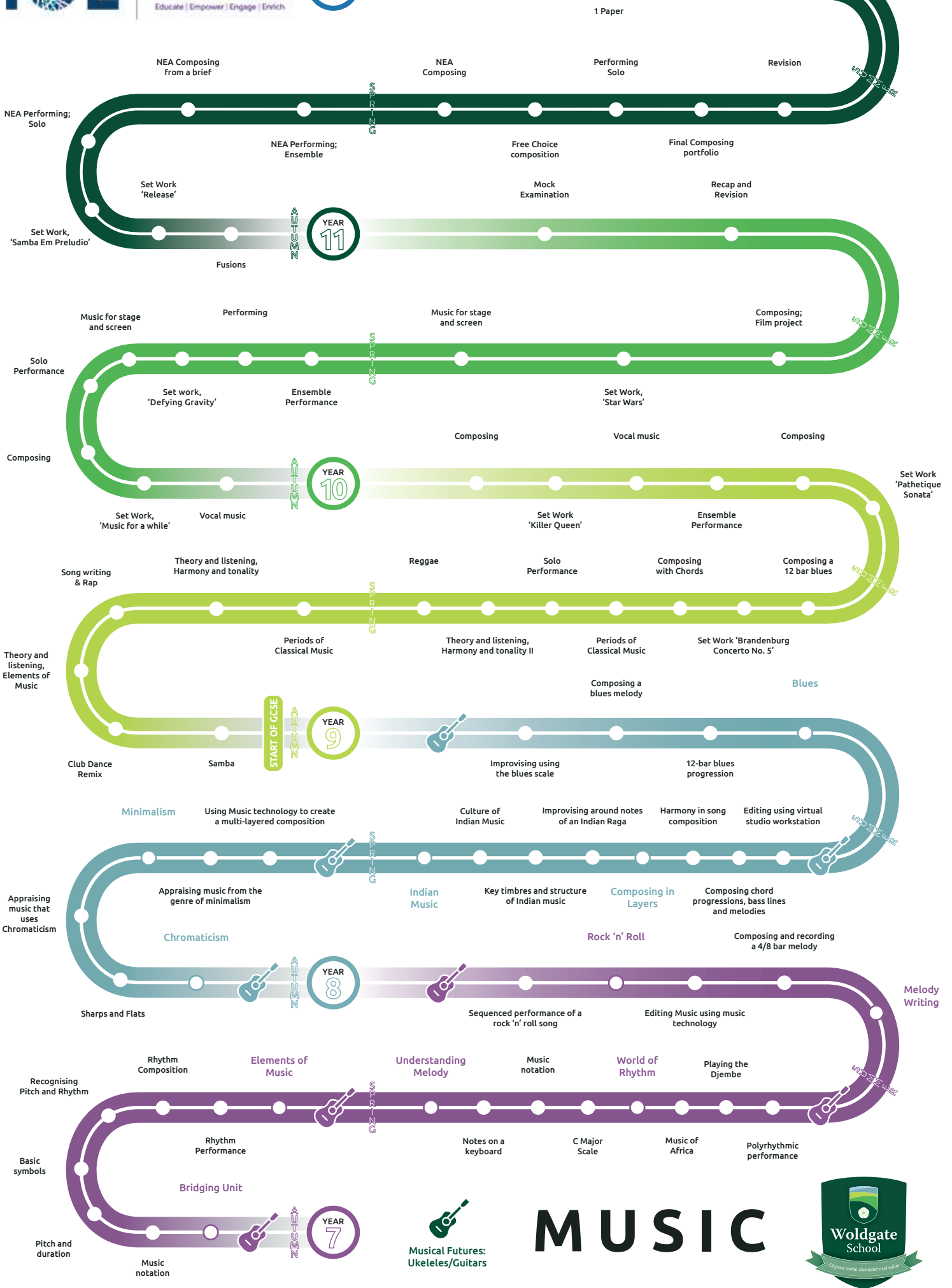
<p>Rearranging Formulae</p>	<p><b>Use inverse operations</b> on both sides of the formula (balancing method) until you find have isolated the chosen subject on one side of the equals.</p> <p>Tackle each part of the formula in the <b>reverse</b> order that you would for substitution</p>	<p>Make <math>x</math> the subject of <math>y = \frac{2x-1}{z}</math></p> <p>Multiply both sides by <math>z</math></p> $yz = 2x - 1$ <p>Add 1 to both sides</p> $yz + 1 = 2x$ <p>Divide by 2 on both sides</p> $\frac{yz + 1}{2} = x$ <p>We now have <math>x</math> as the subject.</p>
<p>Rearranging where the new subject appears more than once</p>	<p>When the variable you want to make the subject appears more than once in the formula:</p> <ol style="list-style-type: none"> <li>1. Move all terms that include the new subject to one side and move all terms that don't include the new subject to the other side (+or-)</li> <li>2. Factor your new subject out.</li> <li>3. Divide by your bracket.</li> </ol>	<p><b>Make <math>t</math> the subject</b></p> $4t + 7 = 3u - tq$ $\begin{array}{r} -7 \qquad -7 \\ 4t = 3u - tq - 7 \end{array}$ $\begin{array}{r} +tq \qquad +tq \\ 4t + tq = 3u - 7 \end{array}$ $t(4 + q) = 3u - 7$ $t = \frac{3u - 7}{4 + q}$
<p>Inequality symbols</p>	<p><math>x &gt; 2</math> means <b><math>x</math> is greater than 2</b></p> <p><math>x &lt; 3</math> means <b><math>x</math> is less than 3</b></p> <p><math>x \geq 1</math> means <b><math>x</math> is greater than or equal to 1</b></p> <p><math>x \leq 6</math> means <b><math>x</math> is less than or equal to 6</b></p> <p>An <b>integer</b> is a whole number</p>	<p>State the integers that satisfy <math>-2 &lt; x \leq 4</math>.</p> <p>-1, 0, 1, 2, 3, 4</p>
<p>Inequalities on a Number Line</p>	<p>Inequalities can be shown on a number line.</p> <p><b>Open circles</b> are used for numbers that are <b>less than</b> and <b>greater than</b> (<math>&lt;</math> or <math>&gt;</math>)</p> <p><b>Closed circles</b> are used for numbers that are <b>less than or equal</b> and <b>greater than or equal</b> (<math>\leq</math> or <math>\geq</math>)</p> <p>The arrow points towards the numbers <math>x</math> can be, so greater than is to the right, less than is to the left.</p>	<p><math>x \geq 0</math></p> <p><math>x &lt; 2</math></p> <p><math>-5 \leq x &lt; 4</math></p>
<p>Solving inequalities</p>	<p>Solve inequalities in the same way as we solve equations, however use the inequality sign.</p> <p>Also, if you multiply or divide an inequality by a negative value it switches the direction of the inequality sign.</p>	$45 \geq 8x - 3$ $\begin{array}{r} +3 \quad +3 \\ 48 \geq 8x \end{array}$ $\begin{array}{r} \div 8 \quad \div 8 \\ 6 \geq x \end{array}$ $x \leq 6$



# Music



**GCSE EXAMINATIONS**



**Musical Futures:**  
Ukeleles/Guitars

**MUSIC**





**CHROMATIC MUSIC** is music that uses notes from the chromatic scale.

A **chromatic scale** is made up entirely of **semitones**. To play it **fluently** you need to use the first three fingers of your right hand and keep your thumb off the black notes!

A **semitone** is when you move from one note to another note by step. So you move one note at a time.

A piece of music we have heard was 'Prelude A L'Apres-Midi D'un Faune' by the French composer **Claude Debussy**. This piece is written for a **Symphony Orchestra** which is a large-scale orchestra featuring all four main families of instruments. **Brass, Percussion, Strings and Woodwind**.

Remember also that much music for film uses **Chromaticism** as it can help to create suspense, mystery, magic and be thrilling and dramatic.

Good examples are in 'Jaws', Harry Potter films and James Bond Films

### Sharps and Flats

- # This sign means sharp, which means you play the black note directly above a note (to the right).
- b This sign means flat, which means you play the black note directly below a note (to the left).

Symbol	American (British) Note Names	Beats	Rests
	Whole note (Semibreve)	4 beats	
	Half note (minim)	2 beats	
	Quarter note (crotchet)	1 beat	
	Eighth note (quaver)	1/2 beat	



### FUR ELISE

'Fur Elise' is a famous classical piece of music composed for the piano by the German composer Beethoven. The opening melody of Fur Elise uses Chromatic notes.



The piece opens by moving in semitones between the notes E and D#.

This piece must be played **legato** (smoothly) as opposed to **staccato** (spiky or detached)

Playing **fluently** means playing at an appropriate tempo without hesitations or stops and starts.

Playing **accurately** requires playing correct note durations and correct pitches.

There are lots of **quavers** in Fur Elise. These are worth half a beat each and help make the piece sound **fluent**.

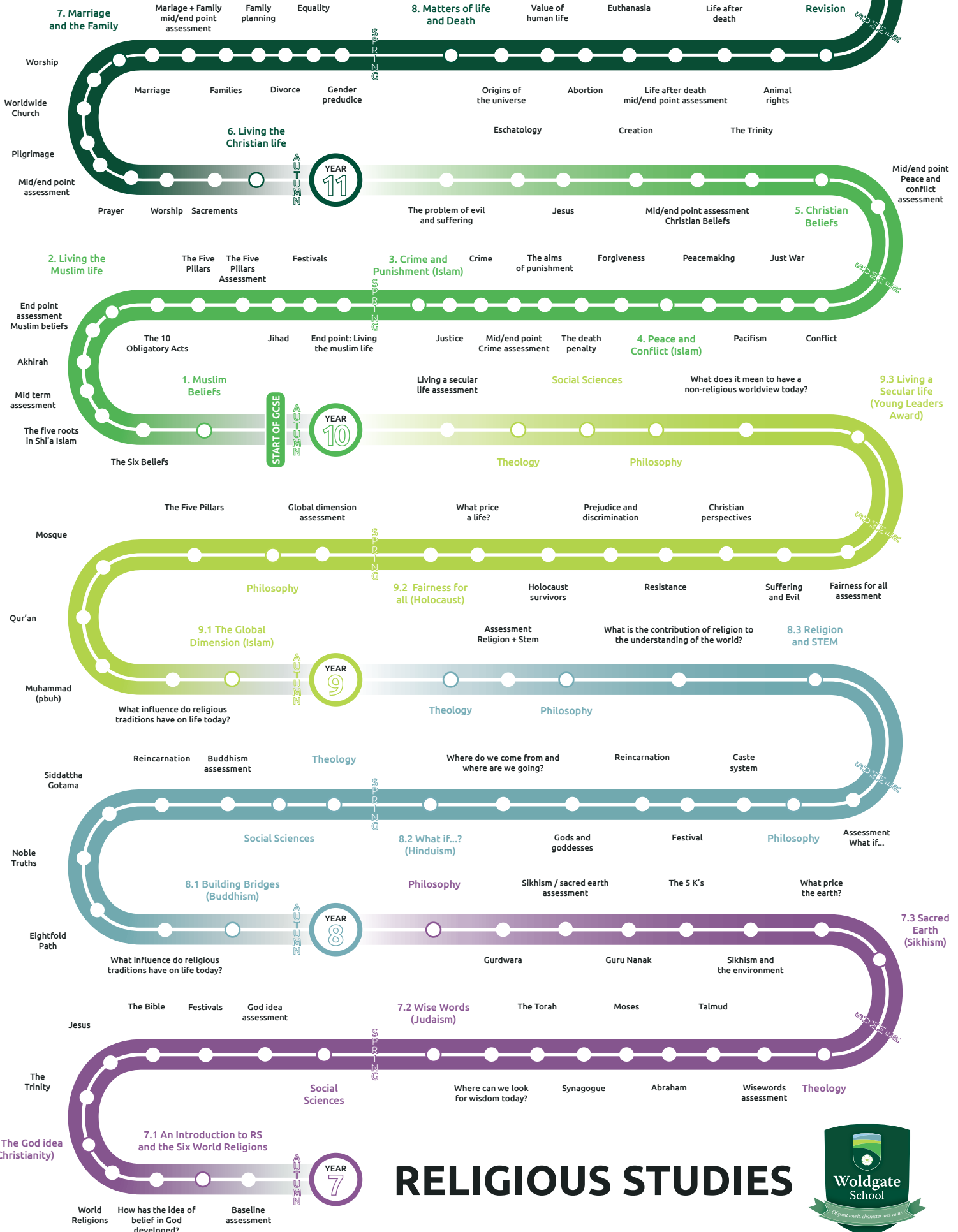




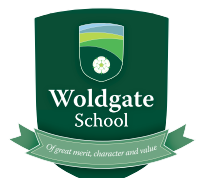
# Religious Studies



**GCSE EXAMINATIONS**



**RELIGIOUS STUDIES**

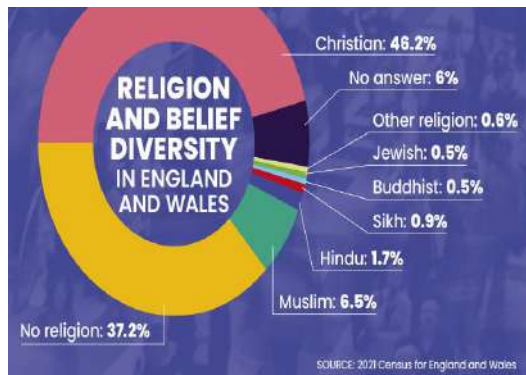


# Year 8 :Unit 1: What influence do religious traditions have on life today ?

## KEY WORDS :

Global village	A single community linked by telecommunications
Spirituality	The quality of being concerned with the human spirit
Atheist	Someone who does not believe in God
Humanist	Human beings have the right and responsibility to give meaning and shape to their own lives
Sewa	Service to others/charity helping others (Sikhi)
Mahatma Gandhi	Political and spiritual leader. Non-violence
Dharma	The duties of living. The overarching law of Hinduism
Ahimsa	Non-violence(Hinduism)
Moksha	End of the rebirth cycle – becoming one with God
Swarg and narak	Heaven and hell (Hinduism)
Karma	The actions which affect rebirth
Samsara	Reincarnation
Jannah	Heaven in Islam
Jahannam	Hell in Islam
Pluralist	People believe in different religions and beliefs and learn to respect each other in a multi-cultural society
Agape	Greek – universal love for strangers, nature and God
Meditation	Focussing and clearing the mind

## How religious is the UK ?









### The 10 key virtues of Hinduism

Compassion, Ahimsa, Service to others, Tolerance, Cleanliness, Self-discipline, Respect for life, Wisdom, Providing shelter for others, Honesty

# KNOWLEDGE ORGANISER

## What do different sacred texts teach about how to live?

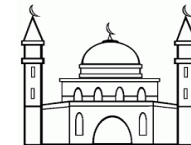
<p><u>Christianity: The Bible</u></p>  <p>“Love your neighbour!” Mark 12:31 “In the beginning God created the heavens and the earth” Genesis 1:1</p>	<p><u>Hinduism : Vedas</u></p>  <p>“A person’s karma, or deeds, will determine what form they will be reborn into. The more good deeds a person has done, the better form their soul inhabits”</p>
<p><u>Judaism : The Torah</u></p>  <p>“He who saves a single life saves the world entire” Talmud “God will bring every deed into judgement...whether it is good or evil..”</p>	<p><u>Buddhism</u></p>  <p>“I believe that not only should we keep our relationship with our other fellow beings very gentle and non-violent, but it is also very important to extend that kind of attitude to the natural environment”</p> <p><u>Buddhism</u></p>
<p><u>Islam : The Qur’an</u></p>  <p>“Speak kindly” Qur’an 2:83 “And be Patient. Surely, Allah is with those who are patient”</p>	<p><u>Sikhi: Guru Granth Sahib</u></p>  <p>“Do not wish evil for others. Do not speak ill of others. Do not obstruct any ones activities”</p>



Synagogue



Church



Mosque



Mandir



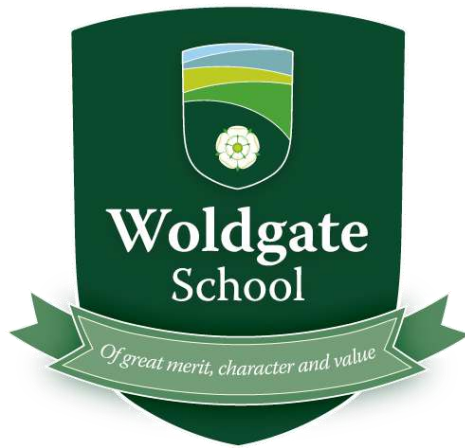
Vihara



Gurdwara

## World religions Timeline:

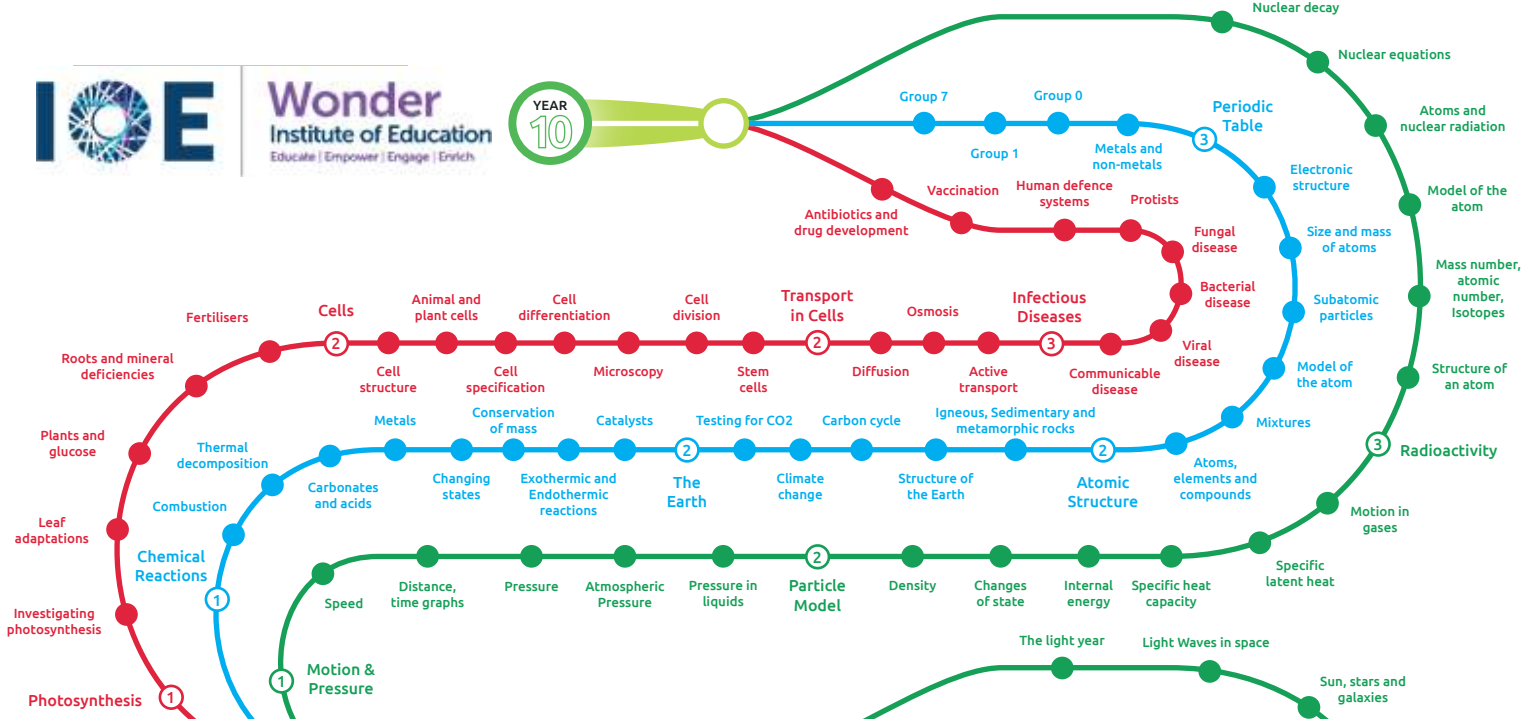




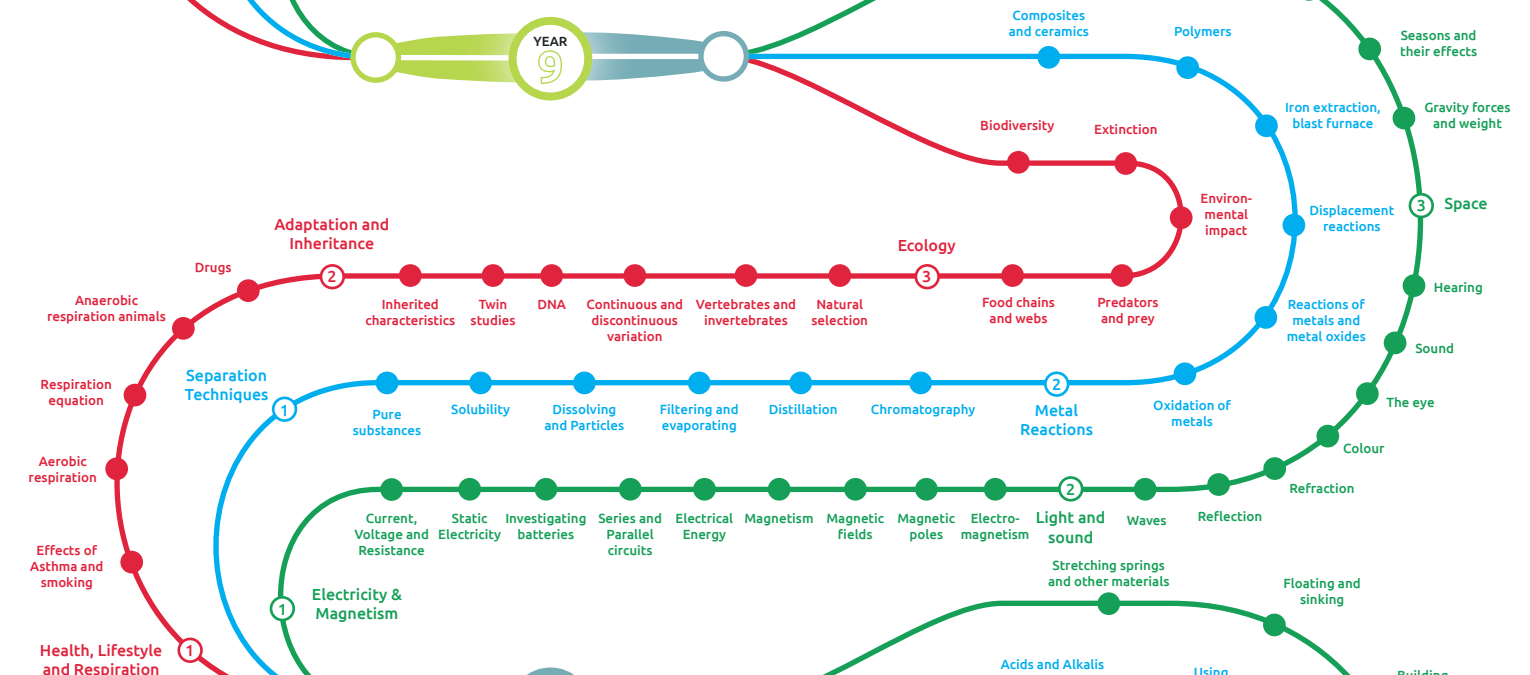
# Science



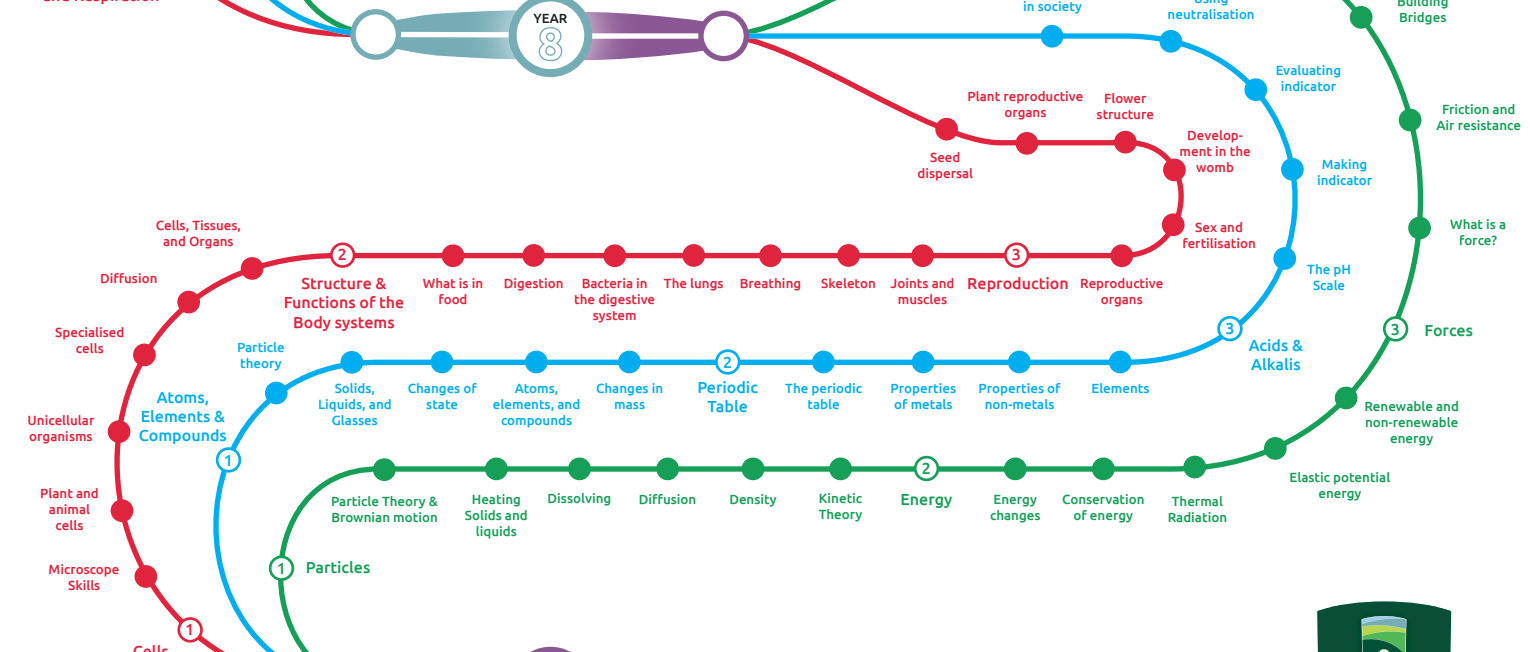
**YEAR 10**



**YEAR 9**



**YEAR 8**



**YEAR 7**



**KS3 SCIENCE**

**Biology** **Chemistry** **Physics**



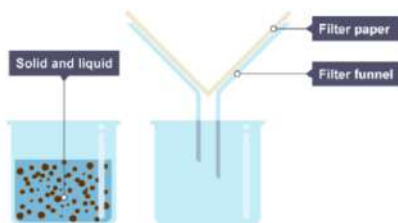
Scientific Skills

# Separation Methods

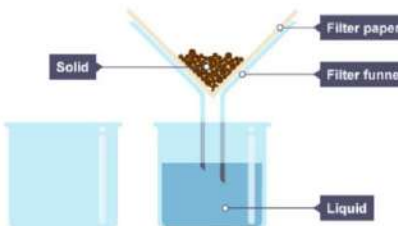
Keyword	Definition
<b>Solution</b>	A liquid mixture in which a solute has dissolves in the solvent
<b>Solute</b>	A minor component in a solution – dissolves in the solvent
<b>Solvent</b>	The liquid which the solute dissolves in
<b>Saturated</b>	The point at which no more solute can dissolve
<b>Pure</b>	Only one type of particle
<b>Dissolve</b>	Solid is mixed into a liquid to become a solution
<b>Particle</b>	A small piece of matter – everything is made up of these
<b>Filter</b>	To remove solid particles from liquid particles
<b>Evaporate</b>	Particles go from a liquid to a gas
<b>Separate</b>	To remove one type of particle from another
<b>Soluble</b>	A substance is capable of dissolving
<b>Mixture</b>	More than one type of particle
<b>Solubility</b>	How much of a substance will dissolve in a solution
<b>Insoluble</b>	A substance is not capable of dissolving

## Filtration:

- A method for separating an insoluble solid from a liquid. A beaker containing a mixture of insoluble solid and liquid. There is filter paper in a filter funnel above another beaker.



- The mixture if insoluble solid and liquid is poured into the filter funnel.
- The liquid particles are small enough to pass through the paper as a filtrate. The solid particles are too large to pass through the filter paper and stay behind as the residue.



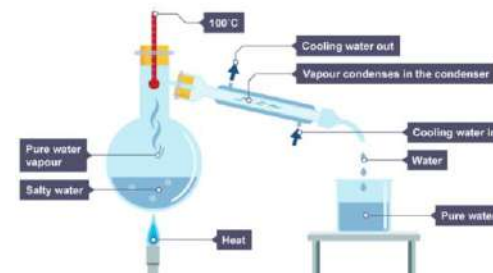
## Evaporation:

- A method used to separate a soluble solid from a liquid.
- A solution is placed in an evaporating basin and heated with a Bunsen Burner.
- The water will begin to evaporate and solid particles will begin to form in the basin.
- Once the water has evaporated, it will leave solid crystals behind.



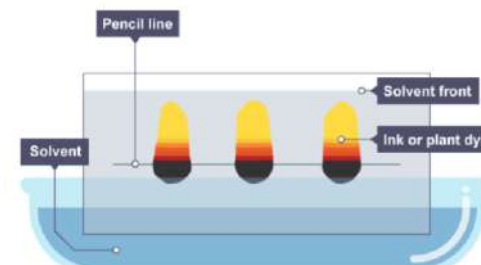
## Distillation:

- A method used for separating the solvent from a solution. E.g. water can be separated from a salt solution because the water has a much lower boiling point than the salt.
- Salt water is heated. The water evaporates and it's vapours rise.
- The vapours rise and pass into the condenser, where they cool and condense.
- Liquid water drips into a beaker and the salt will be left in the round bottom flask.



## Chromatography:

- Paper chromatography is a method for separating dissolved substance from one another. Often used when the dissolved substance are coloured such as inks, food colouring or plant dyes.
- A pencil line is drawn on the paper, and spots of ink are placed on the line.
- There is a solvent usually water or ethanol in a container/beaker.
- The paper is lowered into the solvent. The solvent travels up the paper, taking some of the substances with it.
- As the solvent travels up the paper, the different coloured substances are spread apart.



## Further Reading:

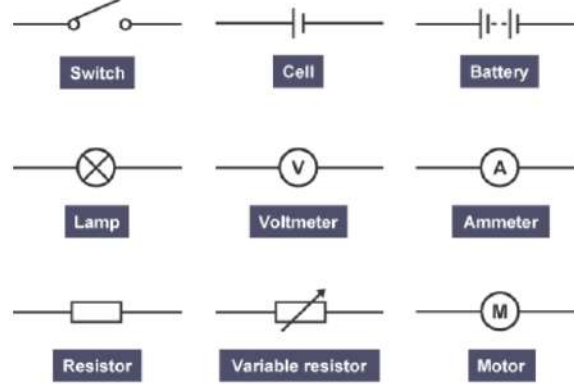
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# Electricity

Keyword	Definition
<b>Ammeter</b>	A device used to measure electric charge.
<b>Ampere</b>	Unit of current. E.g. The current in the bulb is 4 amps or amperes (A).
<b>Cell</b>	A store of internal energy that can be transferred as an electric current in a circuit.
<b>Conductor</b>	A material which allows charge to move easily through it.
<b>Electron</b>	Sub atomic particle which flows in a circuit carrying a negative charge.
<b>Series Circuit</b>	A circuit connected in a way that the same current flows through each component in turn.
<b>Parallel Circuit</b>	In a parallel circuit, the current divides into two or more paths before recombining to complete the circuit.
<b>Insulator</b>	A material that does not allow charge or heat to pass through it easily.
<b>Ohms</b>	The unit of electrical resistance. Unit is $\Omega$
<b>Resistance</b>	The opposition in an electrical component to the movement of electrical charge through it. Resistance is measured in ohms.
<b>Potential Difference</b>	The potential difference (or voltage) of a supply is a measure of the energy given to the charge carries in a circuit.
<b>Volt</b>	Unit of voltage. E.g. the voltage across the lamp was 6 volts (V).
<b>Voltmeter</b>	A device used to measure potential difference or voltage.

## Circuit Symbols



## Electric Charge

Some particles carry an electric charge. In electric wires these particles are called electrons. An electric current is a flow of charge, and in a wire this will be a flow of electrons.

For an electric current to flow we need:

- Something to transfer the energy to the electrons, such as a cell, battery or power pack.
- A complete path for the electrons to flow through (a complete circuit).

## Current

Current is measured in amperes (A). 20A is a bigger current than 10A. An ammeter is used to measure the current. The ammeter must be connected in series.



## Equations To Remember

### Current

$$\text{Current} = \frac{\text{Charge}}{\text{time}} \quad I = \frac{Q}{t}$$

Current in Amps (A), Charge in Coulombs (C), Time in Seconds (s).

### Potential Difference:

$$\text{Potential Difference} = \text{Current} \times \text{Resistance}$$

$$V = I \times R$$

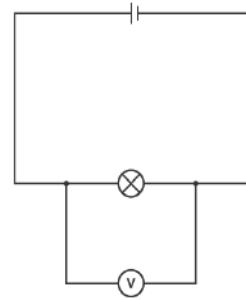
Potential difference in Volts (V), Resistance in Ohms ( $\Omega$ ), Current in Amps (A)

## Potential Difference

Potential difference is a measure of the difference in energy between two parts of a circuit. The bigger the difference in energy, the bigger the potential difference.

Potential difference is measured in volts. A 230V is a bigger potential difference than 12V.

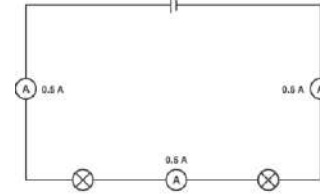
A voltmeter is used to measure the potential difference, and must be in parallel.



## Series Circuit

In series circuits:

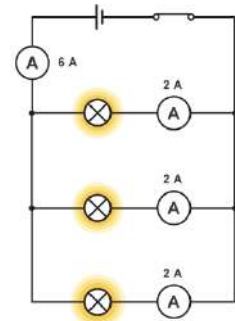
- You get several components one after another.
- If a component breaks, the circuit is broken and all the other components stop working.
- The current is the same everywhere in a series circuit no matter where you put the ammeter – it will give the same reading.



## Parallel Circuit

In parallel circuits:

- Different components are connected on different branches.
- If a component breaks, the components on the different branches keep working.
- Unlike series, the lamps stay bright if you add more lamps in parallel.
- Current is shared between the components.

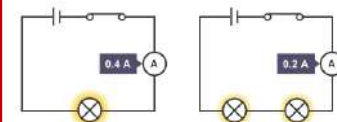


## Resistance

The wires and other components in a circuit reduce the flow of charge through them – this is resistance.

The resistance increases when you add more components in series.

The resistance of two lamps is greater than the resistance of one lamp, so less current will flow through them.



## Further Reading:

<https://www.bbc.co.uk/bitesize/guides/zsfg82/revision/1>

Use the following link to set up some circuits using the simulation.  
<https://phet.colorado.edu/en/simulation/circuit-construction-kit-dc-virtual-lab>



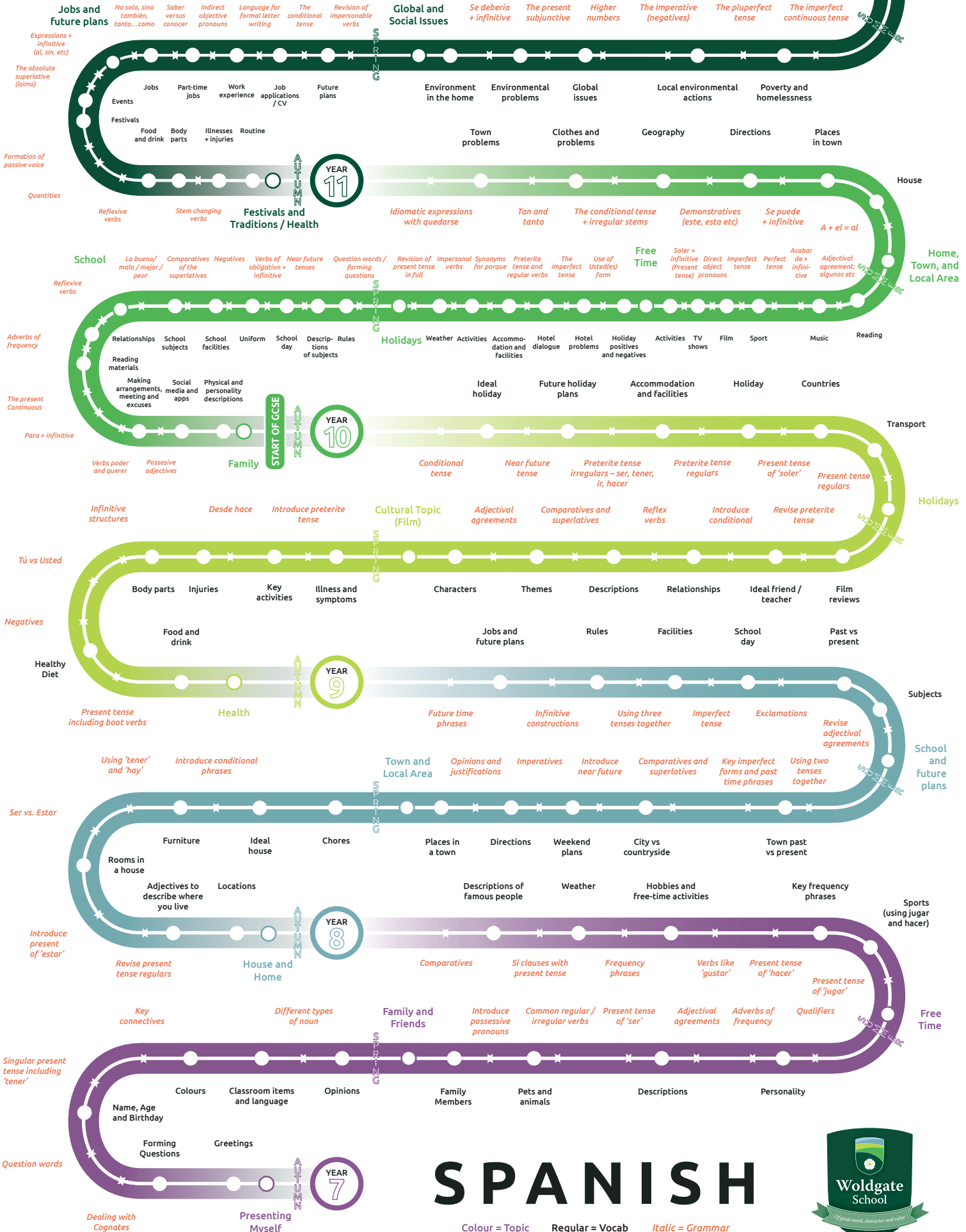
# Spanish





**GCSE EXAMINATIONS**

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



**SPANISH**

Colour = Topic    Regular = Vocab    *Italic = Grammar*





## Talking about places in the town

<p><b>En mi ciudad</b> <b>In my town</b></p> <p>En mi calle <i>(On my street)</i></p> <p>Cerca de mi casa <i>(Near my house)</i></p> <p>Cerca de donde vivo <i>(Near where I live)</i></p> <p><b>En mi pueblo</b> <b>In my town</b></p>	<p>hay (there is)</p> <p>no hay (there isn't)</p>	<p>un (a)</p> <p>una (a)</p> <p>ningún (any)</p> <p>ninguna (any)</p>	<p>aparcamiento <i>(carpark)</i></p> <p>banco <i>(bank)</i></p> <p>edificio grande <i>(big building)</i></p> <p>campo de fútbol <i>(football pitch)</i></p> <p>centro comercial <i>(shopping mall)</i></p> <p>mercado <i>(market)</i></p> <p>polideportivo <i>(sports centre)</i></p> <p>parque pequeño <i>(small park)</i></p> <p>restaurante chino <i>(Chinese restaurant)</i></p> <p>restaurante italiano <i>(Italian restaurant)</i></p> <p>supermercado <i>(supermarket)</i></p> <p>teatro <i>(theatre)</i></p>
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### Hay

Hay is a very useful word that is used with singular or plural nouns. It means both 'there is' and 'there are'.

- *En mi ciudad hay una estación de tren.*
- *En mi casa hay tres dormitorios.*

The *un/una* is often missed out when *no hay* is used:

- *No hay estadio.*

Note that the meaning of *hay* differs from that of *tiene* and *es*:

**tiene** (he/she/it has)

- *Mi amigo tiene dos hermanos.*

**es** (he/she/it is)

- *Mi ciudad es grande.*

a library



una biblioteca

a clothes shop



una tienda de ropa

a park



un parque

a school

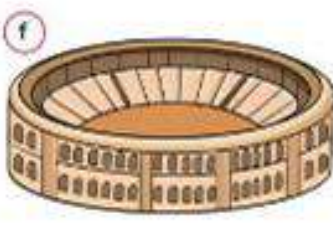


un instituto



un estadio

a stadium



una plaza de toros

a bullring



un supermercado

a supermarket



una estación de tren

a train station

## Describing where you go in town

Voy al parque...	<i>I go to the park</i>	para ver una película.	<i>to see a film</i>
Voy a la biblioteca...	<i>library</i>	para pasear a mi perro.	<i>to walk my dog</i>
Voy a las tiendas...	<i>shops</i>	para leer un libro.	<i>to read a book</i>
Voy al instituto...	<i>school</i>	para visitar a mi abuela.	<i>to visit my nan</i>
Voy al estadio de fútbol	<i>football stadium</i>	para apoyar al Atlético de Madrid	<i>to support atleti</i>
Voy al hospital...	<i>hospital</i>	para estudiar.	<i>to study</i>
Voy al cine...	<i>cinema</i>	para comprar ropa.	<i>to buy clothes</i>

### Ir in the present tense

*Ir* is one of the most frequently used verbs in Spanish. It is irregular in the present tense.

<i>ir</i>	to go		
<i>voy</i>	I go	<i>vamos</i>	we go
<i>vas</i>	you (sing) go	<i>vais</i>	you (pl) go
<i>va</i>	he/she/it goes	<i>van</i>	they go

### Using the imperative

The imperative is a command, the most common of which is formed by using the third-person singular of the present tense. The imperative is used a lot in spoken language.

- *¡Escucha!* Listen!
- *¡Lee!* Read!
- *¡Escribe!* Write!

Some common irregulars are:

- *¡Pon!* Put!
- *¡Ven!* Come!
- *¡Ve!* Go!
- *¡Haz!* Do!
- *¡Di!* Say/Tell!

## Giving & understanding directions

¿Dónde está **el/la**.....? Where is the.....?

¿Por dónde se va **al/a la**.....? How to go to the.....?

<b>Para ir</b> (to go) a + el = <b>al</b>  <b>al banco</b> (to the bank) <b>al cinema</b> (to the cinema) <b>al centro comercial</b> (to the shopping centre) <b>al colegio</b> (to school) <b>al gimnasio</b> (to the gym) <b>al restaurante</b> (to the restaurant) <b>al supermercado</b> (to the supermarket) <b>al hospital</b> (to the hospital) <b>al estadio</b> (to the stadium)  <b>a la estación de trenes</b> (to the train station) <b>a la estación de autobuses</b> (to the bus station) <b>a la piscina</b> (to the swimming pool) <b>a la playa</b> (to the beach) <b>a la torre</b> (to the tower) <b>a la tienda de música</b> (to the music shop) <b>a la tienda de deportes</b> (to the sport shop) <b>a la plaza</b> (to the square) <b>a la biblioteca</b> (to the library) <b>a la librería</b> (to the bookshop)	<b>toma</b> (take)  <b>la primera calle</b> (the first road) <b>la segunda calle</b> (the second road) <b>la tercera calle</b> (the third road) <b>la cuarta calle</b> (the forth)	<b>a la derecha</b> (on the right)  <b>a la izquierda</b> (to the left)
	<b>gira</b> (turn) <b>tuercе</b> (turn)	<b>sigue todo recto</b> (go straight) <b>crúza la plaza</b> (cross the square) <b>pasa los semáforos</b> (go through the lights) <b>pasa el puente</b> (over the bridge)
	<b>después</b> (afterwards/then) <b>luego</b> (afterwards/then) <b>antes</b> (before)	
	<b>Está</b> (it is located)	<b>al lado del/de la</b> (beside/next to) <b>delante del/de la</b> (in front of) <b>enfrente del/de la</b> (opposite) <b>Entre....y.....</b> (between....and....) <b>a la izquierda del/de la</b> (on the left) <b>a la derecha del/de la</b> (on the right)
<b>a correos</b> (to the post office)		

## Discussing plans for the weekend

By using the verb *ir* and following it with the preposition *a* and an infinitive, you can say what you or others are *going to do*.

**voy**  
 vas + a + infinitive  
 va  
 vamos  
 vais  
 van

Part of the verb 'IR'

voy  
 vas  
 va  
 vamos  
 vais  
 van

a

I'm going  
 you're going  
 he/she's going  
 we're going  
 you're going  
 they're going

**Infinitive (activity)**

ir  
 ver  
 practicar  
 nadar  
 cantar  
 bailar  
 viajar

to go  
 to see  
 to do  
 to swim  
 to sing  
 to dance  
 to travel

¡Va a ser

It's going to be...

El fin de semana que viene  
 (Next weekend)  
 La semana que viene  
 (Next week)  
 El sábado que viene  
 (Next Saturday)  
 El domingo que viene  
 (Next Sunday)

voy a  
 (I am going to)  
 vamos a  
 (we are going to)

hacer (to do)

ir (to go)

jugar (to play)

montar (to ride)

ver (to see)

deporte (sport)

los deberes (the homework)

senderismo (hiking)

a una fiesta (to a party)

de compras (shopping)

de paseo (for a walk)

al baloncesto (basketball)

en el ordenador (on the computer)

y creo que será  
 (and I think it will be)

y será  
 (and it will be)

y no será nada  
 (and it won't be at all)

aburrido  
 (boring)

agotador  
 (exhausting)

apasionante  
 (exciting)

divertido  
 (fun)

guay  
 (cool)

interesante  
 (interesting)

## Comparing rural & urban areas

Prefiero <b>I prefer</b>	la ciudad <b>the town</b>	porque <b>because</b>	es <b>it is</b>	tranquilo/a - quiet ruidoso/a - noisy
Me gusta más	el campo <b>the country</b>	dado que given that	Hay <b>there is</b>	cines / tiendas (shops) la naturaleza
I like (it) more		ya que <b>as</b>	tiene <b>it has</b>	restaurantes animales
		puesto que <b>since</b>	Tengo <b>I have</b>	alergia interés por

Using the comparatives *tan* and *tan... como*

You have already come across *más* (more) and *menos* (less).

*Tan* means 'so' when used on its own:

- la casa es **tan** grande  
the house is so big

But the structure *tan... como* means 'as... as':

- El campo es **tan** interesante **como** la ciudad.  
The countryside is as interesting as the city.

Eg. El campo es tan tranquilo  
 The countryside is so quiet  
 La ciudad es tan divertida como el campo  
 The town is as fun as the countryside

## Describing changes over time (area)

<p>En mi barrio</p> <p>In my area</p>	<p>hay <u>there is</u></p> <p>había <u>there used to be</u></p>	<p>un instituto</p> <p>una biblioteca</p> <p>unas tiendas</p>
<p>Mi barrio</p> <p>My area</p>	<p>es <u>(it) is</u></p> <p>era <u>(it) used to be</u></p>	<p>bonito</p> <p>feo</p> <p>pequeño</p> <p>grande</p> <p>interesante</p> <p>aburrido</p>
	<p>tiene <u>(it) has</u></p> <p>tenía <u>(it) used to have</u></p>	<p>un cine</p> <p>una piscina</p> <p>unos museos</p>

The imperfect tense is used to describe how things were or used to be in the past.

### Present

En mi barrio **hay**...

Mi barrio **tiene**...

Mi ciudad **es**...

Mi ciudad **está**...

### Imperfect

En mi barrio **había**...

Mi barrio **tenía**...

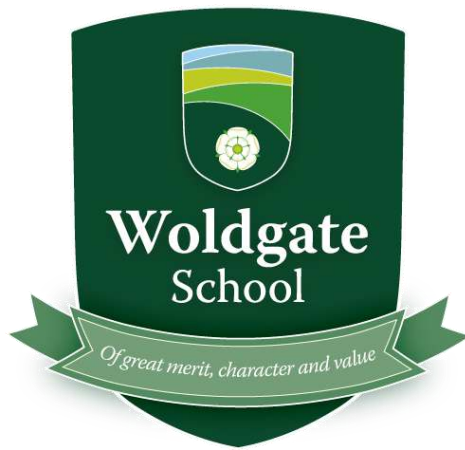
Mi ciudad **era**...

Mi ciudad **estaba**...

To say how long ago something happened, use *hace* with a time expression.

- *hace cien años*      a hundred years ago
- *hace dos meses*      two months ago
- *hace una semana*      a week ago

Note that *hace* always goes in front of the time phrase.



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