



Year 7 Knowledge Book

Spring Term



Wonder
Learning Partnership
Educate | Empower | Engage | Enrich



GCSE EXAMINATIONS

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

Externally Set Assignment (40% of GCSE)

Artist research and critical analysis.

Work produced in the style of the artists

Planning for the final piece

Final assessment of component 1 (coursework)

Collection of resources - using both primary and secondary sources

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

Sampling and mock-up for the final piece

Coursework re-visited and improved/developed further

YEAR 11

Digital manipulation work and experimental work

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

Work produced in the style of the artists 2

Mock-up for final piece

Developed planning for final piece

Personal Choice Project

Personal Choice Project - introduction

Planning a final piece

Researching artists and analysing their work

Packaging Project (Whitehead and Graham)

YEAR 10

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

Collection of resources - using both primary and secondary sources

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

Creating a final piece and a review

Work in the style of the artists

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

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

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

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

Work in the style of the artists

Creating a Landscape final piece and a review

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

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

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

Landscape Project (Dodge and Mullan)

Researching artists and analysing their work

Planning a Landscape final piece

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

Re-visiting skills to improve confidence and independence

Combining text and images to create surreal portrait.

Mastering the grid technique for drawing portraits

Portraits (Contemporary - Loui Jover and Barbara Kruger)

YEAR 9

Developing mono-printing skills

Andy Warhol-style "Toy" print

Mastering selective layering technique

Seed heads (Angie Lewin, Blaxill)

Close-up studies of seedheads

Lichtenstein-style "sound burst" painting

Developing oil pastel skills

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

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

Exploring observation drawing. Mastering surface texture.

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

Developing existing colour mixing and painting skills

Exploring the work of others and making connections through understanding

African Pattern (contemporary)

Watercolour fish painting

Mastering colour theory and colour mixing

Fish Painting (Aleah Koury, MC Escher)

Developing compositional layering skills

Exploring fonts, typography and onomatopoeia

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

Mastering independent design - tessalations

Mastering planning and independent composition-making

Exploring watercolour painting techniques

Mastering aerial perspective

Exploring stacking and overlapping shapes

Exploring complex compositions

Mastering biro cross-hatching techniques

Perspective (Van Gogh, LS Lowry)

Exploring 3D shapes with one point perspective.

Shading, blending and plotting shadows

Exploring reflections and distortions on bottles and glasses (Morandi)

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

Mastering the illusion of depth

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

YEAR 7

Exploring 3D shapes and form. Mastering pencil shading

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

Baseline Test to establish skills

ART



- LINE
- TONE
- SHAPE & FORM
- COLOUR
- TEXTURE
- PATTERN

Vincent van Gogh

one of the most popular of the Post-Impressionist painters. He painted 900 paintings over 10 years, including the 'Sunflowers' series. He is well known for cutting off his ear lobe.

Can you name examples of 1 Point and 2 Point Perspective?

Key Words

Perspectiv art
representation of 3D objects or space in 2D artworks

1 Point Perspective
a drawing method that shows how things appear to get smaller as they get further away, converging towards a single 'vanishing point' on the horizon line.

Horizon
a physical or visual boundary where sky separates from land or water.

Eye level
the position of the eye of the viewer if the object is viewed from below.

Parallel Line
lines that never intersect, and they form the same angle when they cross another line.

Primary Colours
Colours that when mixed all other colours can be obtained (red, blue, yellow)

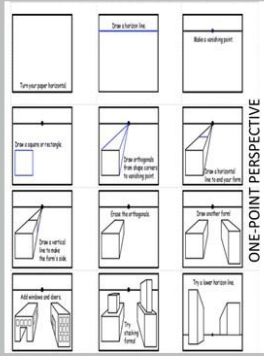
Secondary Colours
2 primary colours mixed together (purple, green, orange).

Vanishing point
The point in space where items seem to disappear.

Depth of field
the distance between the nearest and the furthest objects giving a focused image

Illusion
an instance of a wrong or misinterpreted perception of a sensory experience.

Station Point
the position of the observer

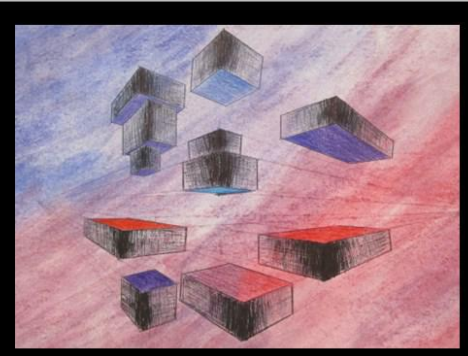
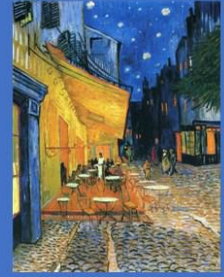


1 POINT PERSPECTIVE

JOHANNES VERMEER (1632-1675)
DUTCH PAINTER
THE MUSIC ROOM (1662)



VINCENT VAN GOGH (1853-1890)
DUTCH POST-IMPRESSIONIST PAINTER
CAFÉ TERRACE AT NIGHT (1888)



Challenge Questions:
Why is it important to learn about perspective?
Why is it important to learn about colour mixing?
What changes occur when you move the vanishing point (VP)?

- LINE
- TONE
- SHAPE & FORM
- COLOUR
- TEXTURE
- PATTERN

L.S. LOWRY

Laurence Stephen Lowry. Although best known for his mill scenes and industrial landscapes, Lowry's work covers a wide range of themes and subjects, from landscapes to portraits and surreal imaginings.

What is the difference between 1 and 2 Point Perspective?

Key Words

Two Point Perspective
Is when you can see two vanishing points from your point of view (from a corner) and they are often used in architectural drawings and interior designs.

Three Point Perspective
Third vanishing point above gives the viewer the feeling of height and depth

Atmospheric perspective
Shows the colour changing (is lighter) the further away from you.

Sfumato
The word is derived from the verb "fumare", which means "to smoke." The sfumato technique refers to a painting with no bold or harsh outlines. By blurring and blending carefully, artists use sfumato to give a smoky, atmospheric effect to a painting.

Graduation
a gradual change of tone going from light to dark

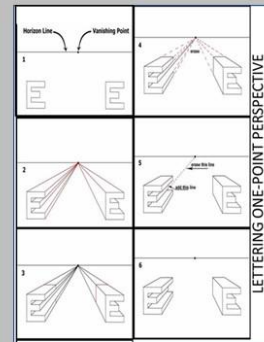
Linear
arranged in or extending along a straight or nearly straight line.

Scale
the appearance of size that our eyes see

Hues
A shade or colour.

Tertiary colours
One primary and one secondary colour mixed together.

Orthogonal lines
imaginary lines which are parallel to the ground plane and the line of sight of the viewer

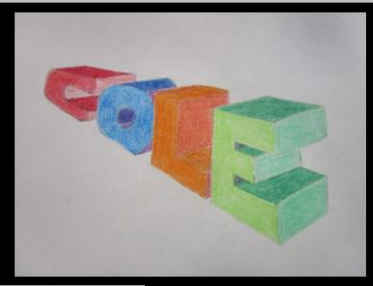
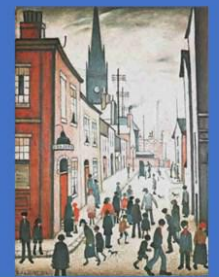


1 POINT PERSPECTIVE

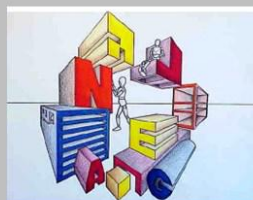
GUSTAVE CAILLEBOTTE (1848-1894)
FRENCH IMPRESSIONIST PAINTER
LE PARC MONCEAU (1877)



L.S. LOWRY (1887-1976)
BRITISH ARTIST
THE ORGAN GRINDER (1934)



2 POINT PERSPECTIVE



Challenge Questions:
How do you show atmospheric perspective? What happens to your perspective drawing if you change the position of the horizon line?

PERSPECTIVE ART TIMELINE

EGYPTIAN WALL PAINTING (PRE-PERSPECTIVE)
3000-1000BC



PAOLO UCCELLO (1255-1471)
RENAISSANCE PAINTER & MATHEMATICIAN
EARLY WORKS (UNKNOWN)



14TH CENTURY

SANDRO BOTTEICELLI (1465-1510)
ITALIAN PAINTER
ARCHITECTURE (1490)



15TH CENTURY

RAFAEL (1483-1520)
RENAISSANCE PAINTER
SCHOOL OF ATHENS (1511)



16TH CENTURY

JOHANNES VERMEER (1632-1675)
DUTCH PAINTER
THE MUSIC LESSON (1662)



17TH CENTURY

PIERRE-BOURGOIS VALETTE (1876-1942)
FRENCH IMPRESSIONIST PAINTER
OFT FORD ROAD MANCHESTER (1911)



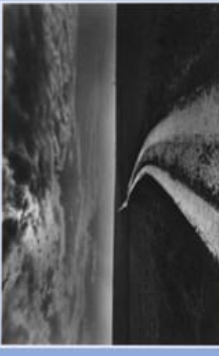
19TH CENTURY

GUSTAVE CAILLEBOTTE (1848-1894)
FRENCH IMPRESSIONIST PAINTER
LE PAVILLON ROUGE (1877)



20TH CENTURY

DOON MCCOLLUM (1935-)
BRITISH PHOTOJOURNALIST
THE BATTLEFIELDS OF THE SOMME, FRANCE (2000)



CAREY YOUNG (1970-)
BRITISH VISUAL ARTIST
BODY TECHNIQUES (AFTER SCULPTURE II)
KIRSTEN JUSTESSEN 1969 (2007)



20TH CENTURY

VINCENT VAN GOGH (1853-1890)
DUTCH POST-IMPRESSIONIST PAINTER
CAFÉ TERRACE AT NIGHT (1888)



DAN GRIS (1877-1927)
SPANISH CUBANIST ARTIST
DE LA LEVE WITH CUBISTS WASHINGTON (1918)



ALDO ROSSI (1931-1997)
ITALIAN ARCHITECT AND DESIGNER
LEGGI (1963-1967)



TRISTRAM HILLIER (1905-1983)
ENGLISH SURREALIST PAINTER
ALACAZAR (1961)



EDWARD HOPPER (1882-1967)
AMERICAN REALISM PAINTER
NIGHTHAWKS (1942)



EDWARD RUSCHA (1937-)
AMERICAN POP ARTIST
STANDARD STUDY #3 (1963)



ANDRÉ DERAIN (1880-1954)
FRENCH FAUVIST ARTIST
THE OLD TOWN CAGNAN (1910)



L.S. LOWRY (1897-1976)
BRITISH ARTIST
THE ORGAN GRINDER (1934)



PAUL NASH (1889-1946)
BRITISH SURREALIST PAINTER AND WAR ARTIST
LEGGI (1963-1967)



ATRYCE CALVELED (1936-2001)
BRITISH POP ARTIST
SUN GEORGE (1976)



HENRY MOORE (1895-1980)
BRITISH SCULPTOR
TUBE SHELTER PERSPECTIVE (1941)



JOHN WAINWRIGHT (1946)
THE NORTON SCHOOL OF ART (1982-4)



JOHN PIPER (1903-1992)
BRITISH WORLD WAR II ARTIST
COVER THE CHURCH (1983)



THOMAS STRUTH (1954-)
GERMAN PHOTOGRAPHER
SCHLOSSSTRASSE, WITTEBERG (1991)



LUCA MONDO (1989-1989)
ARTIST
MAMMARIAN PHOTOGRAPHER
WITTE BERG (1991)



JOHN PIPER (1903-1992)
BRITISH WORLD WAR II ARTIST
COVER THE CHURCH (1983)



ANTHONY HERNANDEZ (1927-)
AMERICAN PHOTOGRAPHER
RUE 47 (1979)



BRIDGET RILEY (1931-)
ENGLISH OP ART PAINTER
WAVES (1959)



IKO TAKAMIZUKI (1936-1986)
JAPANESE GAGA AND SURREALIST ARTIST
PERSPECTIVE PAINTING (1967)



JULIAN OPPIE (1938-)
ENGLISH SCULPTOR & DIGITAL ARTIST
IMAGINE YOU ARE DRIVING (1998-9)



21ST CENTURY

LEONID AFANASYEV (1952-2018)
RUSSIAN-ISRAELI MODERN IMPRESSIONISM ARTIST
ALLEY BY THE LAKE (UNKNOWN)



PATRICK BORHERRMANN (1959-)
AMERICAN CITY SCULPTURE
LUMINOUS CITY (UNKNOWN)



ANDY BURGESS (1969-PRESENT)
BRITISH AMERICAN ARTIST
PARATY HOUSE BRAZIL (2014)



MICHELLE HUGHES (UNKNOWN)
BRITISH FINE ARTIST
PRINTMAKER
WHITBY ABIEY STEPS (2022)



DAVID HOCKNEY (1937-)
BRITISH PAINTER AND POP ARTIST
SALT'S MILL, BRADFORD (2011)

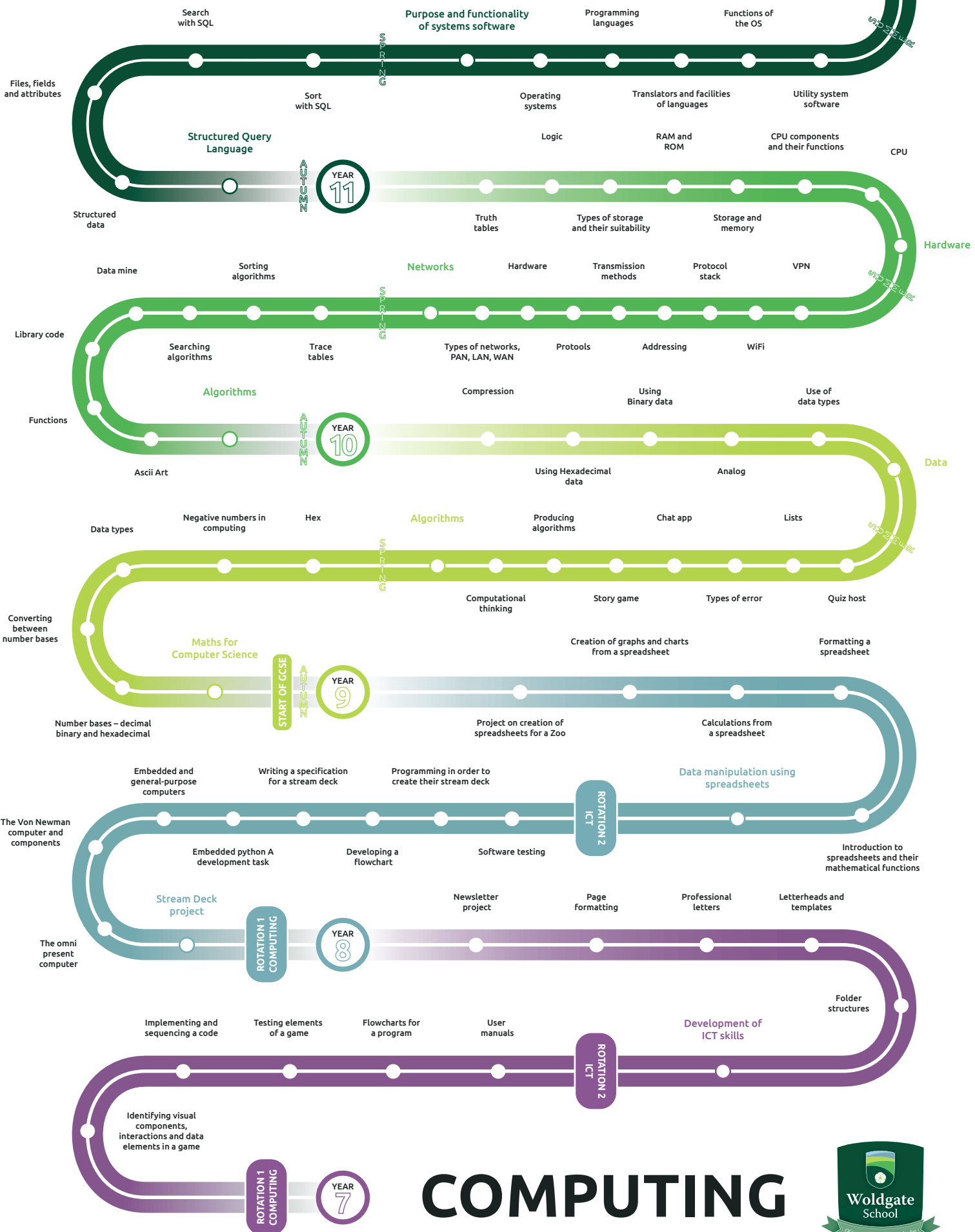




GCSE EXAMINATIONS

2 GCSE Exam Papers

Revision



COMPUTING



PROGRAMMING ESSENTIALS IN SCRATCH

Algorithms

Algorithms

- An **algorithm** is a **sequence** of step-by-step **instructions** to solve a problem.
- Algorithms can be written in code, or be a **sequence** of pictures

A computer algorithm



Algorithm for making a sandwich

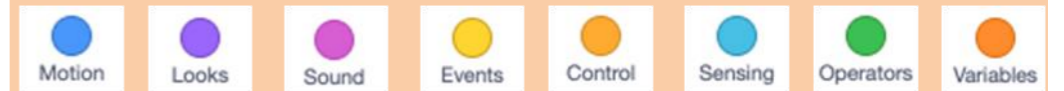
Scratch

Word	Definition	Image
Sprite	The name of a character in Scratch	
Scratch	The name of the programming language we are learning	
Turn # # degrees	How far to the left or right you want to move your sprite. # is replaced with the number	
Block	A single instruction in our algorithm	

Key Terms

Instructions	detailed information about how something should be done or operated.
Execute	When you create a program for a computer, you give it a set of commands to execute.
Sequence	The order the instructions need to be in
Selection	Making choices
Iteration	Doing the same thing more than once Iteration in computing is the process of repeatedly executing instructions
Repeat	The block that makes an instruction happen more than once
Variables	A variable is a name that refers to data being stored by the computer
Subroutines	In computer programming , a subroutine is a sequence of program instructions that performs a specific task,
If block	- allows us to check a condition and perform an operation if the condition evaluates to 'true'.
Debugging	Finding errors in our code
Abstraction	Taking away all the information that isn't needed
Decomposition	Breaking down a problem
count-controlled	Count-controlled iteration will execute the commands a set number of times
condition-controlled	Condition-controlled will execute the commands until the condition you set is no longer being met

Scratch blocks and Programme examples



We can use **algorithmic prediction** to guess what will happen. My **Sprite** is going to get bigger!

The **repeat loop** in this example, will move ten times. This is **more efficient** than writing out ten **commands**.

The **turn # degrees block** will turn my sprite. This **algorithm** will turn my **sprite** in a circle

What is Scratch?

Scratch is a visual **programming language** that allows you to create programs by dragging blocks of scripts.



Block menu

The block menu helps users pick which scripts they need to control various aspects of a program.



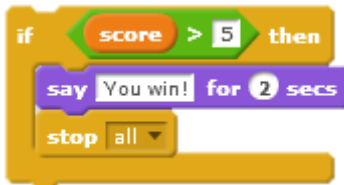
Variables

A variable is used to store data for use in your program.

Variables can be used to store lots of different types of data such as names, numbers and scores.



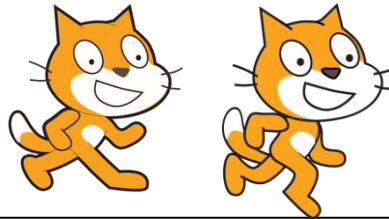
The data stored in a variable can be changed or "varied" depending on certain conditions within a program.



Sprites

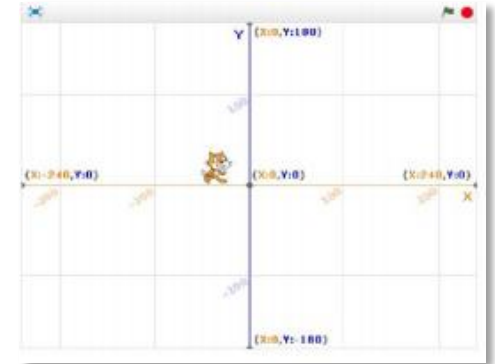
A **sprite** is a character or object in your game or animation.

In order to give the impression that a character is moving you can change the sprites' **costume**.



Stage

The stage is the background of the project. Scratch uses co-ordinates to position different elements around the screen.

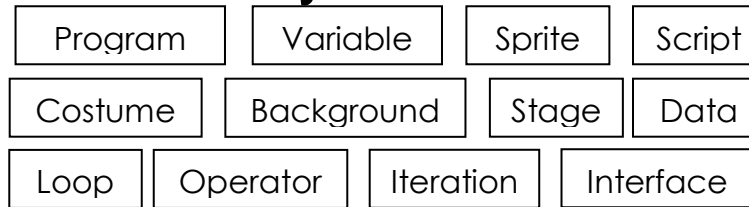


Different backgrounds can be imported or you can create your own.



Scratch Knowledge Organiser

Key Words



Loops

Loops are used as a way of repeating instructions. Also known as **iteration**.



Repeats a certain number of times.

Repeats an instruction forever.

IF Statements

IF statements can be used to select different scripts of a program depending on a condition .

Also known as **selection**.



Operators

Operators are used for **changing** or **comparing** data.

They can **add**, **subtract**, **multiply** and **divide** data

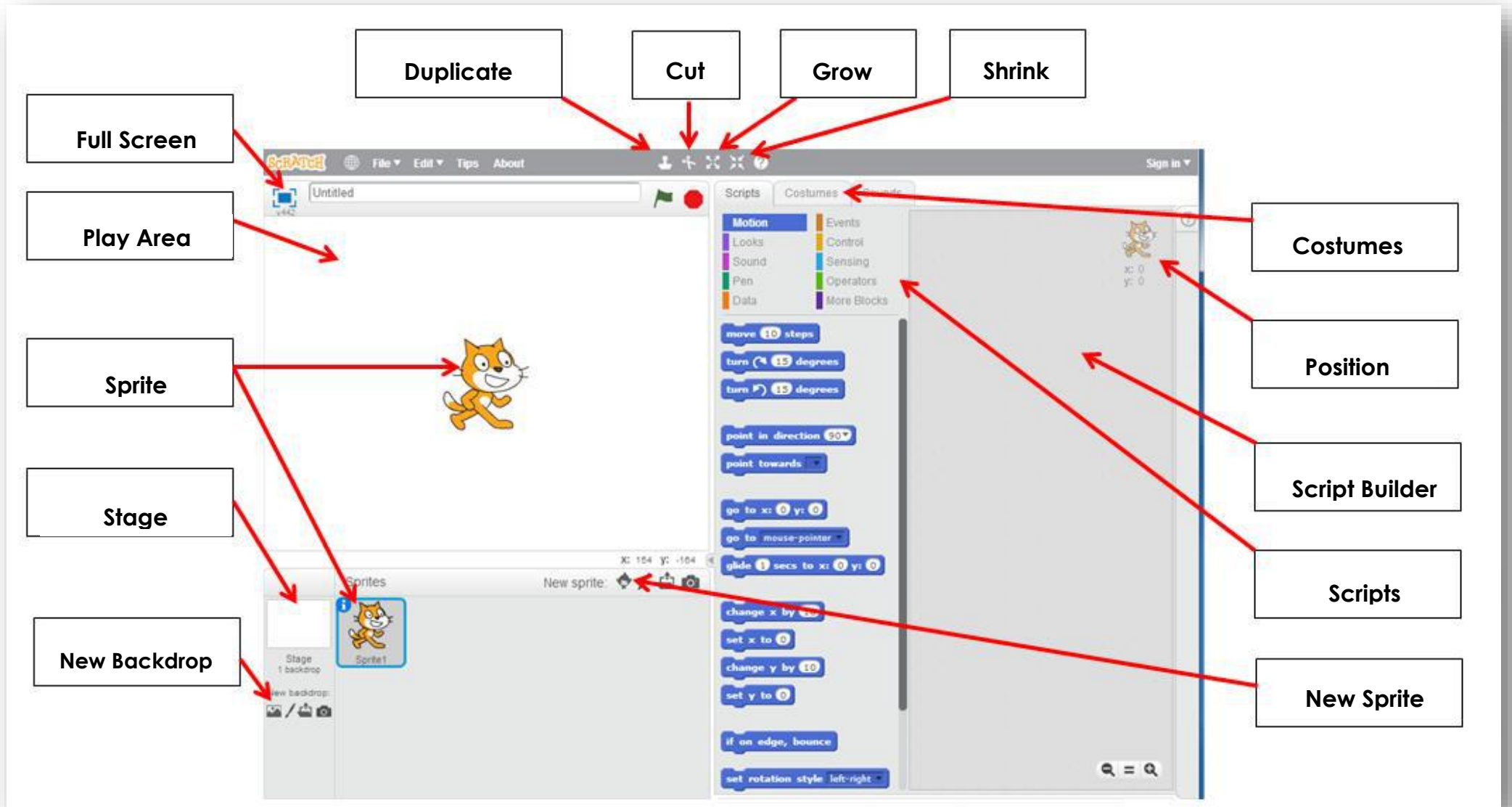


They can also check if values are **less than**, **greater than**, or **equal to** other values.



Scratch interface

An **interface** is what a user will interact with in order to use it. Below is the Scratch interface labelled to show what each key part does.



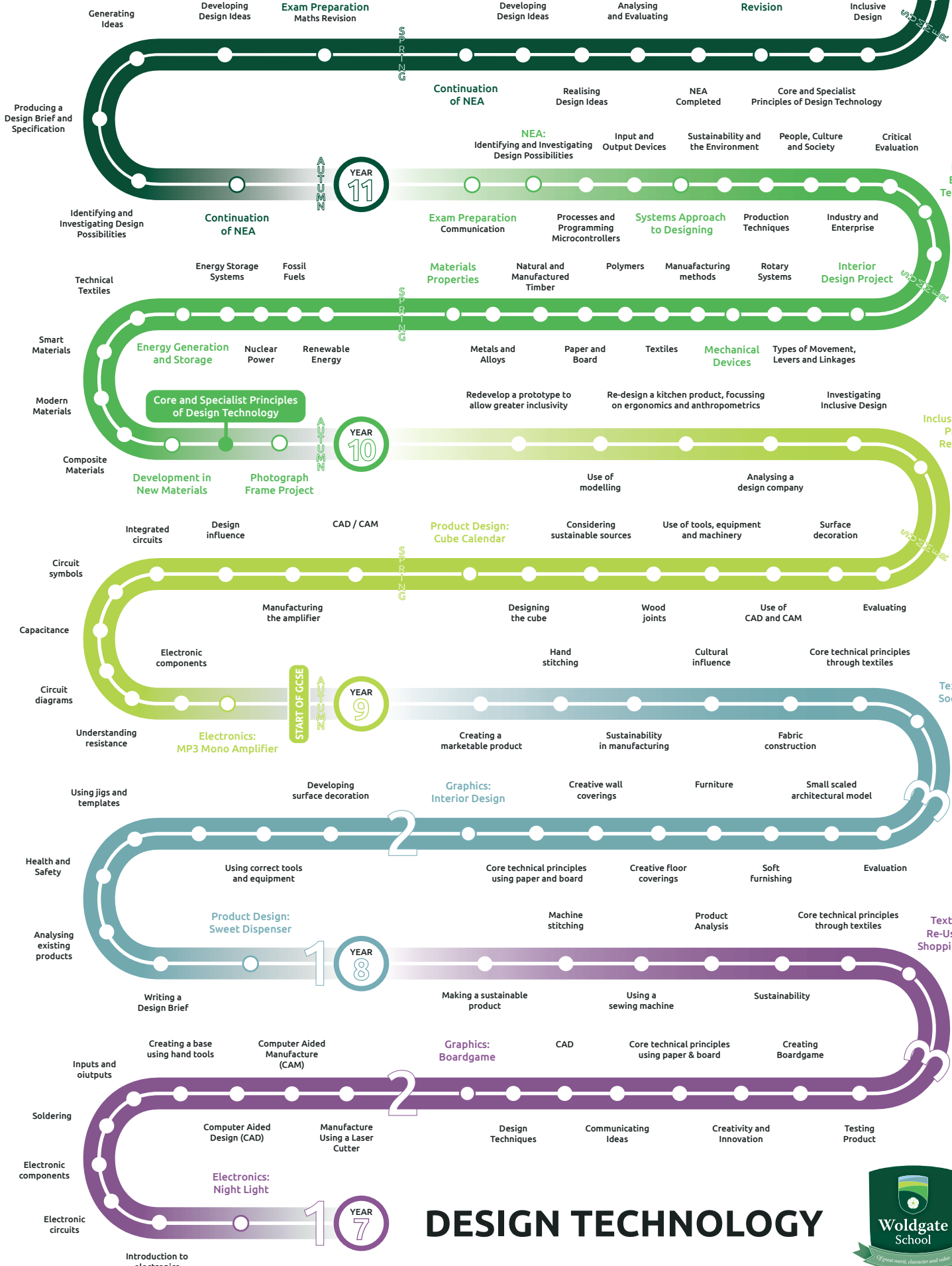


GCSE EXAMINATIONS

1 Written Paper

Maths Revision

Manufacturing in Industry



DESIGN TECHNOLOGY



Knowledge Organiser – Year 7 Boardgame Project

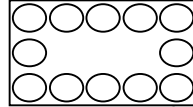
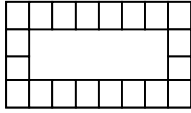


Key Words

Aesthetics: Concerned with beauty or the appreciation of beauty.
Analyse: To look at and discuss in depth.
Brand: A product manufactured by a company under a particular name.
CAD: Computer Aided Design – the use of computers to help create and design.
Flow Chart: A type of picture of the separate steps of a process in sequential order.
GANTT Chart: A type of bar chart that illustrates a project's schedule.
Logo: A word, symbol or picture used to promote and identify a product.
Perspective: A drawing method used to create a 3D effect on a 2D surface.

Knowledge

CAD - Drawing design ideas using publisher to produce a range of designs for the boardgame.



Also using CAD to produce the Final Idea for the boardgame and packaging.



Perspective – Using 1 and 2 point perspective to draw different views of our boardgames.

Nets – A 2D shape, that when scored, cut and folded,, creates a 3D shape.

Design Process

Task Analysis:

Brainstorm – a mind map of all the different areas of the Graphics Project.

Moodboard – A collection of inspiring images and words based on a chosen theme/s.

GANTT Chart – Planning of time to order the stages of making for the Project.

Research:

Existing Products – products that already exist can give us ideas for our own designs.

Brands – Understand what makes a brand and how to create our own.

Design:

Drawing techniques – perspective and CAD to draw views of final idea.

Logo – Your own Boardgame brand and logo.

Packaging – Design the packaging for your product, which must hold all of the cards, board, counters etc.

Practical Skills

Pencil Crayons: Used to apply subtle colour.

Felt Tips: Used to apply bold colour.




Safety Ruler: Used with a craft knife to protect fingertips.



Craft Knife: Used for cutting with precision and trimming.

Cutting Mat: Used to protect surfaces when cutting with a craft knife.



Material	Description
Thermosetting Plastics 	Once heated and moulded, these plastics cannot be reheated and cannot be remoulded . The molecules of these plastics are cross linked in three dimensions, and this is why they cannot be reshaped or recycled. The bond between the molecules is very strong.
Thermoplastics 	Thermoplastics once heated and formed to a shape, can be reheated and reshaped . Every time they are reshaped, the quality of the thermoplastic tends to be reduced. They are recyclable .
Natural Wood 	Hardwoods , sometimes called Broad-Leaved trees , lose their leaves, in winter. They have a wider variety of woods and colour and tend to be harder than softwoods (with the exception of balsa). They are also more expensive than softwoods and take longer to grow. Softwoods are from trees that have needles/exposed seeds and not leaves. They grow quickly, compared to most hardwoods and tend to be light brown/pale in colour when sawn or planed. They are cheaper.
Man-Made Wood	Manmade boards are commonly used in the construction industry, for interior fittings and furniture. They are more stable than natural woods and are less likely to warp and twist out of shape. The three main types are; plywoods (laminated boards), particle boards and fibreboards. They are all manmade in factories / mills. They are usually composed of natural woods and resin, which binds them together.

Literacy

Capital Letters: Use immediately after a dull stop or at the start of a new sentence.

Full stops: Used at the end of every sentence.

Commas: Used to separate sentences or items in a list.

Slang: Not to be used in written classwork.

Tenses: Past, Present and Future. E.g. I drew, I draw & I am drawing.

Numeracy

Mm = Millimeters

Cm = Centimeters

M = Meters

1cm = 10 mm

10cm = 100mm

100cm = 1000mm

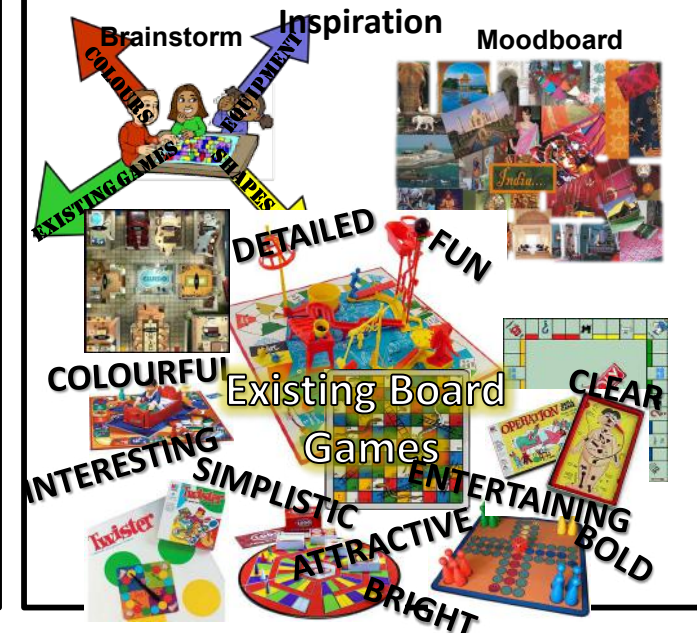
1000mm = 1m

Tolerance = +/- 5mm

Area = Length x Width

Perimeter = all sides added together

$C = 2 \pi R$ $D = C / \pi$



Year 7 Night Light Knowledge Organiser

INPUT - USB and Switch

PROCESS Flow of Electrons

OUTPUT - LED Strip

The Soldering Process

Place the component onto the PCB.

Bend the legs to secure it to the PCB.

Clean the soldering iron tip with wire wool.

Tin the tip of the iron with solder

Apply heat to the PCB and component leg.

Apply a small amount of solder to the joint.

Remove the solder wire first.

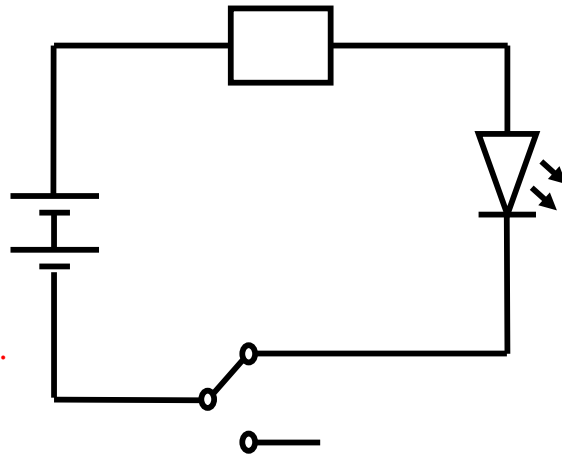
Then, remove the soldering iron.

Clean the soldering iron tip with wire wool.

Check for Dry Joints and resolder / repair if necessary.

Electronic Circuit

A closed loop of electronic components that allows electricity to flow through it.



Soldering Iron



Solder

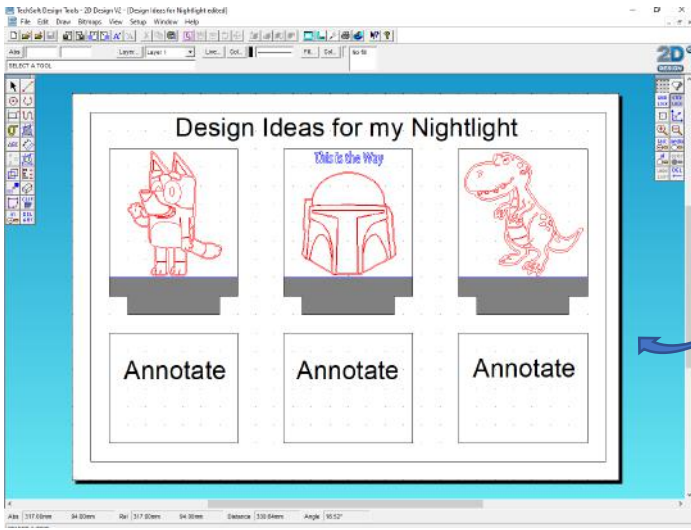


Scan the QR code above to watch a video on the soldering Process.

Soldering

Soldering is a semi-permanent joining process used to join electronic components to Printed Circuit Boards, PCB's, to create an electronic circuit. Heat from the soldering iron is used to melt the solder around the area to be joined.

Component	Symbol	Function in the Circuit
Input Power via the USB Power Cable		Once the USB cable is connected to a USB plug or laptop, this will power the night light.
The Resistor, (or in this project, a bridging wire)		A resistor 'slows down' or 'opposes' the flow of electricity to protect other components from damage. E.g., in my circuit, the LED strip.
LED (Light Emitting Diode)		The LED strip provides light output to the night light. It has a Polarity , which means it has a +(positive leg) and a -(negative leg) and must be soldered the correct way around.
Slide Switch		The Slide Switch turns the circuit on or off.



2d Design
CAD
Software

CAD Skills

2d Design allows users to create technical and graphical drawings with direct machine output.



Laser
Cutter

Scan the QR
code below to
watch a video
on the laser
cutting.

CAD - Computer Aided Design

CAM - Computer Aided Manufacture

Advantages of CAD/CAM

- Faster to draw higher quality designs
- Easy to copy and paste.
- Easier to edit.
- Simple to share files via email.
- Usually, cheaper

Advantages of CAD/CAM

- Work can be lost due to computer error.
- Work is prone to computer viruses.
- Work could be hacked.
- Takes time to learn the software.
- Expensive to purchase the software.



The software I will use to design the lens for my Night Light is called "2d Design".

CAM Skills

Laser Cutter: Used to cut out the lens for the Night Light and for embellishing and adding decoration to the Night Light base.

Black Line - Cut

Red Line - Kiss Cut

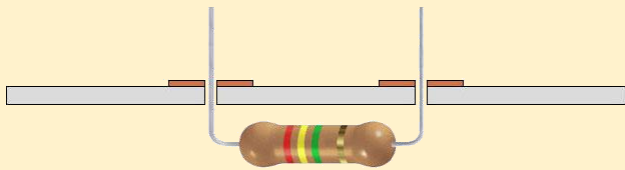
Plywood: Used for the base of your Night Light, this man-made board is made from veneers, (plies), of timber, with each grain layer being placed at right angles to each other and bonded together by resin and pressure.



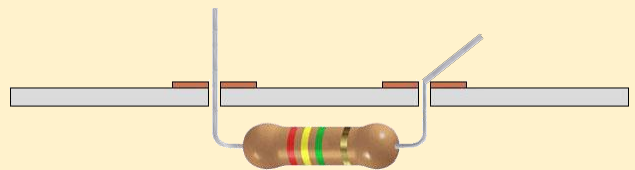
Acrylic: Commonly used in a school workshop, it is usually purchased in the form of sheets and comes in a variety of colours. It can be translucent, transparent, or opaque. It is resistant to most acids and weather conditions.

Knowledge Organiser - The Soldering Process

Step 1 - Component Placement



Step 2 - Securing the Component



Add your component (example shown is a resistor) by pushing the wires through the pre-drilled holes, you have in your PCB.

Bend over the wires you're going to solder to about a 45° angle to prevent the component falling away from the PCB.

Step 3 - Cleaning the Soldering Iron



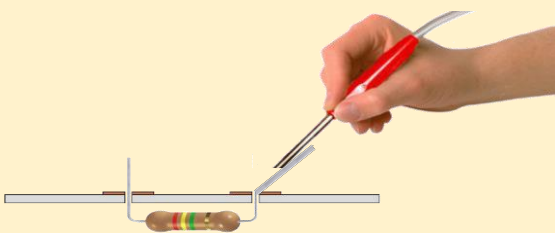
Clean the tip of the iron to take away any dirt on a damp sponge.

Step 4 - Tinning the Soldering Iron



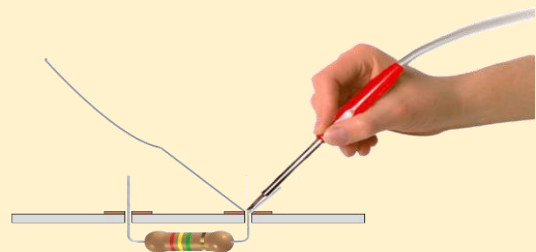
"Tin" the iron. Melt a tiny bit of solder onto the tip of the soldering iron.

Step 5 - Heating the Solder Pad



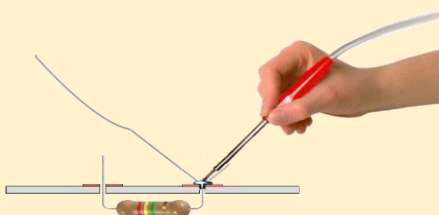
Heat your solder pad by holding the iron's tip onto it for about 3 seconds.

Step 6 - Applying the Solder



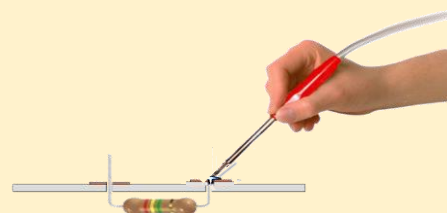
Touch the tip of the solder wire onto the track and continue to apply heat for about 2 seconds.

Step 7 - Melting the solder.



Melt just enough solder to make a good, soldered joint.

Step 8 - Removing the Solder First



Lift away the solder wire **BEFORE** you remove the soldering iron.

Working safely

To ensure safety in the Textiles room you must

- Store bags & coats carefully
- Keep chairs tucked under tables & benches when not in use
- Only use machines under supervision
- Sit to use a sewing machine, scissors & pins
- Maintain focus when using the sewing machine
- Keep your fingers away from the needle when the machine is switched on
- Work at a speed appropriate to your skill level
- Store tools & equipment safely when not in use.

Plastic facts

The raw material for plastic is crude oil, a finite resource.

A plastic bag is used on average for 12 minutes.

Plastic can take hundreds of years to break down & even then remains in the environment as microplastics.

Some scientists believe that plastic pollution is as serious an issue as global warming.

Plastic litter is harmful to wildlife. Birds, animals & sea life are all affected.

Every piece of plastic that has ever been

Machine threading –

Top thread

Place the reel of thread on the spool pin. Replace stopper to secure the reel.

With your left hand, draw the end of the thread to the left

Take the thread around the points marked 1, 2 3 & 4 on the machine

Secure the thread behind the metal bar above the needle

Thread the needle from front to back

Tuck the end of the thread under then behind the foot. There should be 110-15cms of thread.



Key Words for this project

Aesthetics How something appears visually

Accuracy Being exact or correct

Analyse To look at and discuss or write about in depth.

Annotate Add notes to a drawing to give explanation.

Cotton A plant-based fibre grown in hot climates.

Fabric The material used to make textiles products

Fibre thread-like parts from plant or artificial material that can be made into fabric

Client A person who uses your products or services.

Plastic A synthetic material made from polymers

Product Something that is made to be sold.

Seam A line of stitching which joins 2 pieces of fabric.

Seam allowance The distance from the edge of the fabric to the seam

Sewing Machine Specialist electrical equipment used to stitch fabrics

Stitch (verb) To sew 2 things together using thread.

Stitch (noun) A loop of thread which has passed through fabric

Sustainable Something that can keep going for a period of time without harming the environment.

Thread A twisted string of yarn, used for stitching



Numeracy

Accurate measurements are key to the success of your product

Always use a ruler or tape measure to check your measurements

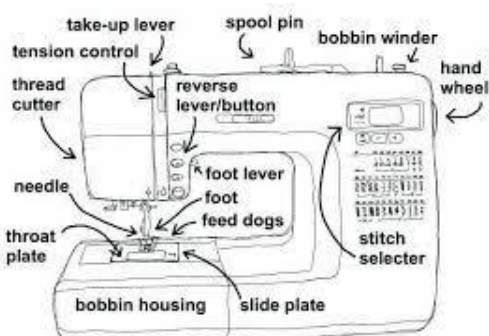
Measure in cm & mm

Mm = Millimetres **Cm = Centimetres** **1cm = 10 mm**

Seam allowances are 1cm

Tolerance = +/- 5mm

Checking your measurements regularly ensures the accuracy of your final product



Literacy

Always title your work. Make sure that your title is underlined

Write in full sentences. These start with a capital letter & end with a full stop.

Check the spelling of key words. Present your work with care & pride.

Cotton

Is a natural, staple plant fibre which comes from the seed boll of the cotton plant. It grows in hot, dry climates. Chemical fertilisers and insecticides are used in cotton farming to improve yields and increase profits.

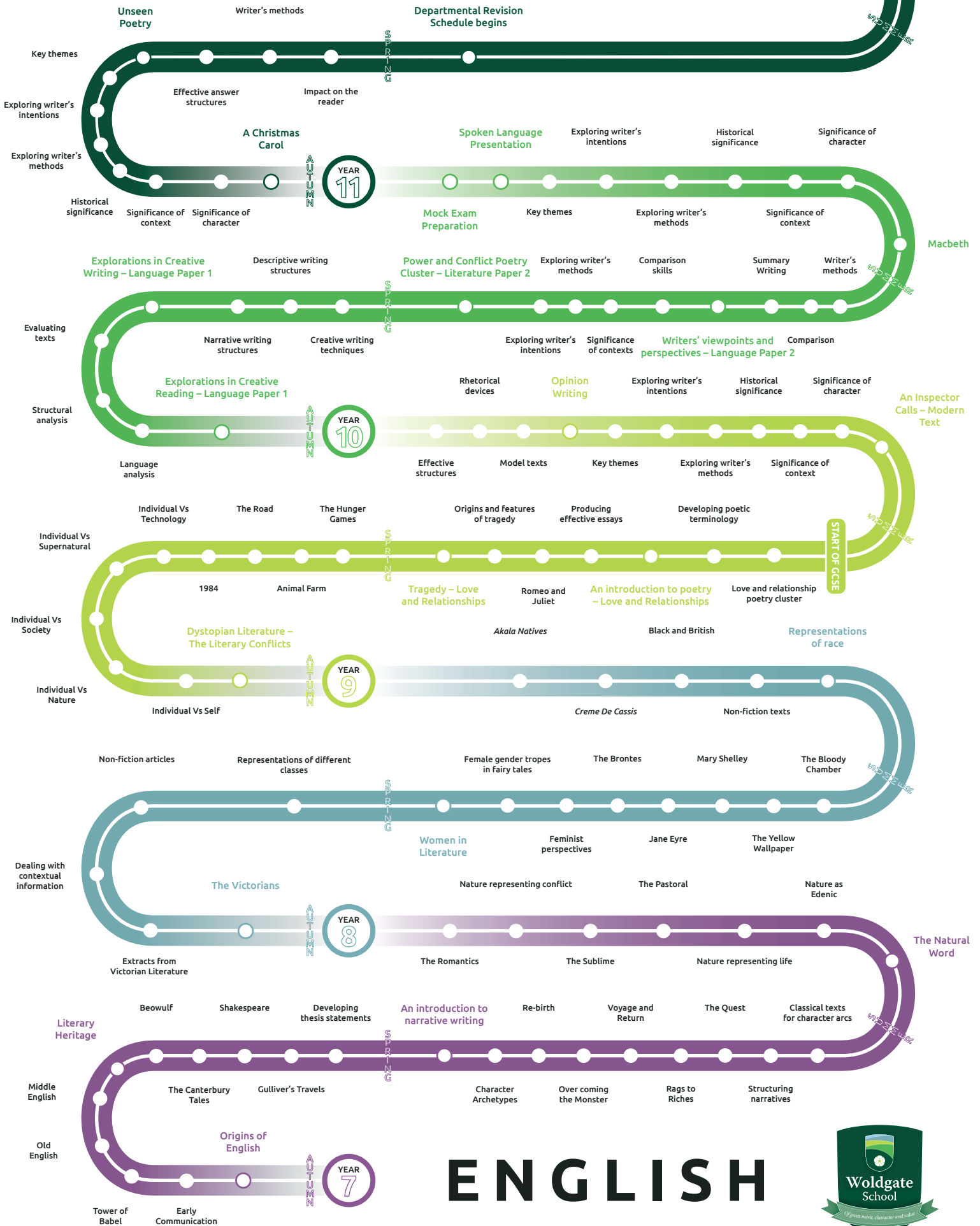
Organic cotton is grown without chemical fertilisers or pesticides which makes it more expensive to produce, but not harmful to the environment.



GCSE EXAMINATIONS

Two English Language Papers

Two English Literature Papers



ENGLISH





Key Stage 2 grammar		
Adjective	Adjectives can be used: <ul style="list-style-type: none"> before a noun, to make the noun's meaning more specific after the verb <i>be</i>, to add more information about the verb 	The pupils did some really good work. [adjective used before a noun, to modify it] Their work was good. [adjective used after the verb <i>be</i> , as its complement]
Adverb	Adverbs modify a verb, an adjective, another adverb or even a whole clause.	Usha soon started snoring loudly. [adverbs modifying the verbs started and snoring] That match was really exciting! [adverb modifying the adjective exciting] Fortunately, it didn't rain. [adverb modifying the whole clause 'it didn't rain']
Antonym	Two words are antonyms if their meanings are opposites.	hot – cold light – dark
Clause	A clause is a special type of phrase whose head* is a verb. Clauses can sometimes be complete sentences. Clauses may be main or subordinate. *See phrase	It was raining. [single-clause sentence] <u>It was raining</u> but <u>we were indoors</u> . [two clauses] If you are coming to the party, please let us know. [subordinate clause + main clause]
Conjunction	A conjunction links two words or phrases together. There are two main types of conjunctions: <ul style="list-style-type: none"> co-ordinating conjunctions link two words or phrases together as an equal pair subordinating conjunctions introduce a subordinate clause. 	James bought a bat <u>and</u> ball. [links the words bat and ball as an equal pair] Kylie is young <u>but</u> she can kick the ball hard. [links two clauses as an equal pair]
Noun	The surest way to identify nouns is by the ways they can be used after determiners such as <i>the</i> . For example, most nouns will fit into the frame "The __ matters/matter."	Our <u>dog</u> bit the <u>burglar</u> on his <u>behind</u> ! My big <u>brother</u> did an amazing <u>jump</u> on his <u>skateboard</u> .
Noun phrase	A noun phrase is a phrase with a noun as its head.	<u>Adult foxes</u> can jump. [adult modifies foxes, so adult belongs to the noun phrase]
Phrase	A phrase is a group of words that are grammatically connected so that they stay together, and that expand a single word, called the 'head'.	She waved to <u>her mother</u> . [a noun phrase, with the noun mother as its head]
Preposition	A preposition links a following noun, pronoun or noun phrase to some other word in the sentence. Prepositions often describe locations or directions, but can describe other things, such as relations of time.	Tom waved goodbye <u>to</u> Christy. She'll be back from Australia <u>in</u> two weeks. I haven't seen my dog <u>since</u> this morning.
Pronoun	A pronoun is a word used in place of a noun.	In the examples, each sentence is written twice: once with nouns, and once with pronouns (underlined). Where the same thing is being talked about, the words are shown in bold. Amanda waved to Michael . <u>She</u> waved to <u>him</u> .
Relative clause	A relative clause is a special type of subordinate clause that modifies a noun. It often does this by using a relative pronoun such as who or that to refer back to that noun.	In the examples, the relative clauses are underlined, and both the pronouns and the words they refer back to are in bold. That's the boy <u>who lives near school</u> . [who refers back to boy] The prize <u>that I won</u> was a book. [that refers back to prize] The prize <u>I won</u> was a book. [the pronoun that is omitted]
Verb	The surest way to identify verbs is by the ways they can be used. They can usually have a tense, either present or past. Verbs are sometimes called 'doing words' because many verbs name an action that someone does. However, many verbs name states or feelings rather than actions.	He <u>lives</u> in Birmingham. [present tense] The teacher <u>wrote</u> a song for the class. [past tense]

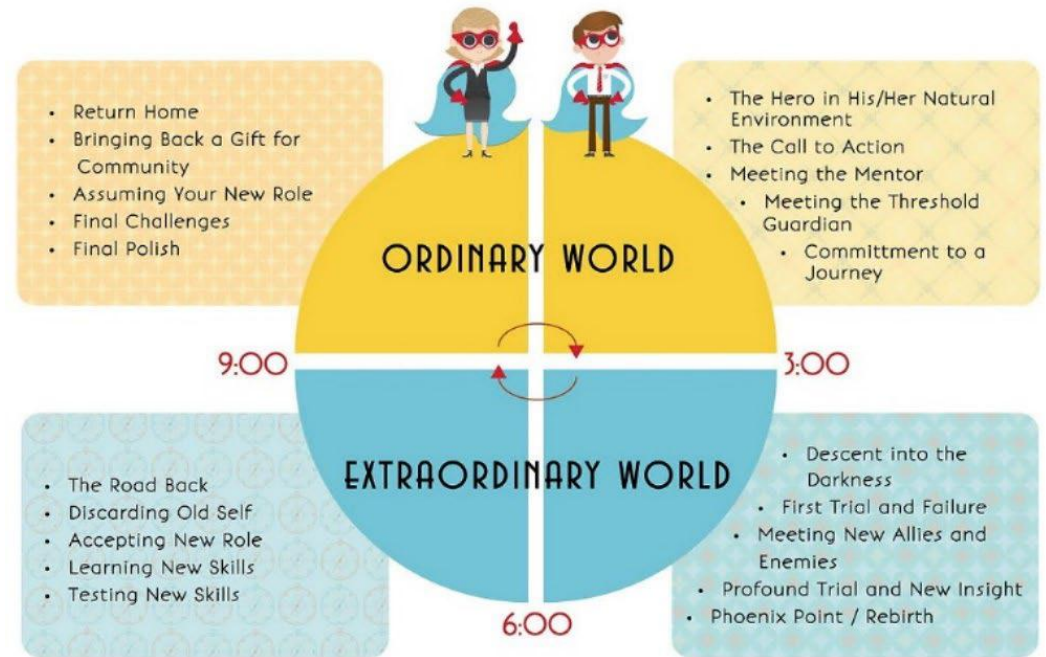
Year 7 – Spring term – the history of storytelling

Stock characters

Hero	Leads the narrative and is often on a quest to find, do or solve something. Does not have to be male.
Villain	Comes into conflict with the hero and tries to thwart his quest.
Heroine	Usually a prize or a reward for the hero. Does not have to be female.
Dispatcher	This is the person who sends the hero off on his quest, either deliberately, or by showing them that something is needed.
Helper	Someone who helps the hero when they are stuck. This could be a sidekick or friend.
Donor	The character who helps the hero by giving them something – either an object or powers or self-realisation.
False Hero	A character who tries to take credit for the hero's actions.

Monomyth: The Hero's Journey

A monomyth is a sequence of actions that is found in many stories. Joseph Campbell believed that the monomyth could be summarised as *The Hero's Journey*.



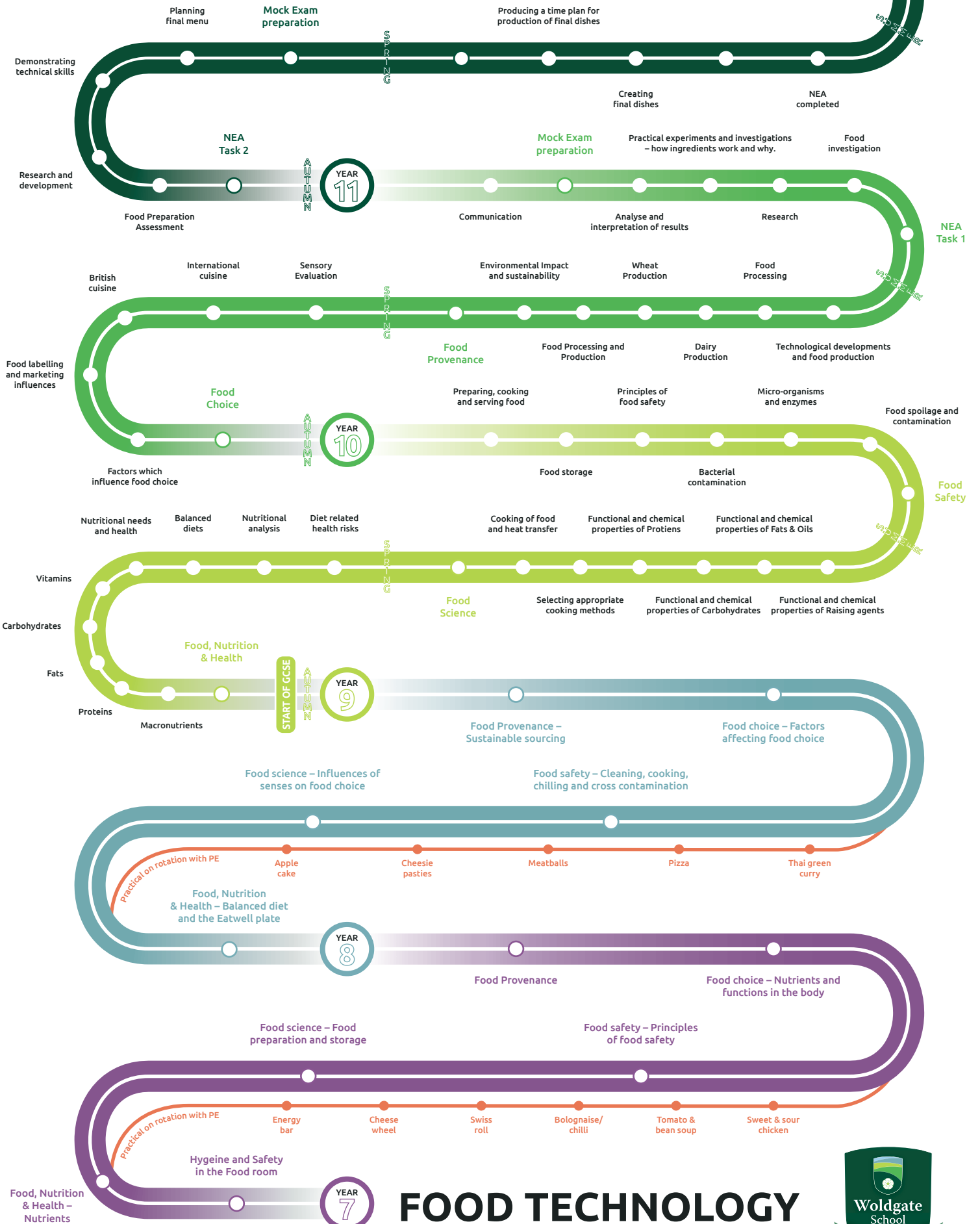
Glossary words			
Oral tradition	Stories that have been handed down over generations using speech or song.	Archetype	A model example of a particular type, exhibiting a set pattern of characteristics.
Myth	<ul style="list-style-type: none"> A story often based on religion and involves gods as characters A story that explains the origins of the world or events A story that often comes from the classical worlds of Greece and Rome 	Stereotype	A simplified, image or attitude that is widely held of a particular group.
Folk story	<ul style="list-style-type: none"> A tale told by a particular culture or group of people in one place A tale often based on everyday events that go wrong A tale that is almost always fictional 	Countertype	A (typically more positive) representation that goes against commonly held beliefs.
Narrative	A story.	Epic hero	A type of hero that was made popular by the Greeks.
Convention	A way in which something is usually done.	Dodekathemon	The name given to the 12 gods of Mount Olympus.
Characterisation	The ways in which writers create characters and make them believable.	Genre	A category of literature such as romance, tragedy, comedy etc.
Allusion	A passing, often indirect, reference to a person, place, thing or idea of historical or cultural significance.		



GCSE EXAMINATIONS

1x GCSE Examination Paper

Revision of Key Topics



FOOD TECHNOLOGY

Knowledge Organiser - Year 7 Food and Nutrition

Key Words

Nutrition = The study of food

Healthy eating = Eating a diet consisting of foods from all nutrient groups

Balanced diet = Eating a diet consisting of foods from all nutrient groups

Carbohydrate = A nutrient that we get from food which provides the body with energy

Protein = needed by the body for growth and repair and keeping cells healthy

Fat = needed by the body to keep us warm, making cell membranes and nerve cells, protect vital organs and to provide backup stores of energy

Vitamins and minerals = essential nutrients because acting together, they perform hundreds of roles in the body. They help support bones, heal wounds, and bolster your immune system. They also convert food into energy, and repair cellular damage.

Raising agent = a substance added to a mixture to make it rise.

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 a hazard may cause.

There are 5 main nutrients our body needs and these are Fats, Protein, Carbohydrates, Vitamins and Minerals.

Carbohydrates can be broken into 3 categories: Sugars, Starches and Dietary fibre

80g of fresh, canned or frozen fruit and vegetables, 30g of dried fruit, 150ml of fruit juice, vegetable juice or smoothie, 80g of beans and pulses counts as 1 portion of your 5 A Day

Rubbing in method



Whisking method



Creaming method



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

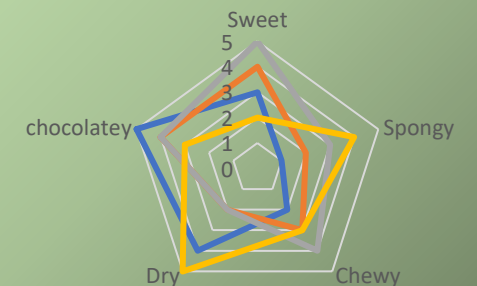
Tsp = teaspoon

Tbsp = tablespoon

ml = millilitres

Example of a practical evaluation

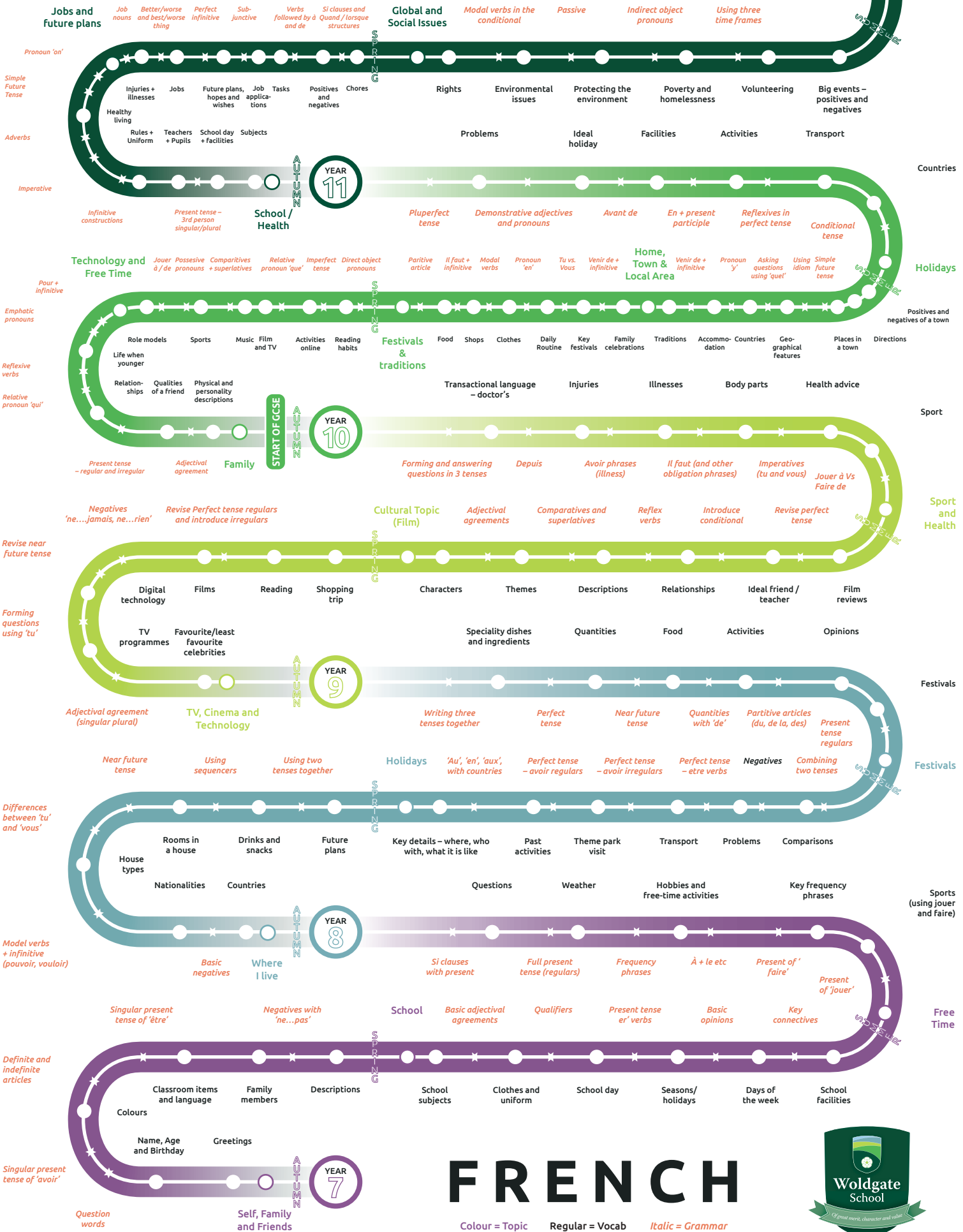
— Person 1 — Person 2
— Person 3 — Person 4





GCSE EXAMINATIONS

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



FRENCH

Colour = Topic Regular = Vocab *Italic = Grammar*





Qu'est-ce qu'il y a dans ta salle de classe? –
What is there in your classroom?

Il y a... There is/are...	un tableau (noir / blanc)	a (white/black) board
	un poster	a poster
	un/une prof (professeur)	a teacher
	un écran	a screen
	un ordinateur	a computer
	une porte	a door
	une fenêtre	a window
	une tablette	a tablet
	des tables	some tables
	des chaises	some chairs
des élèves	some pupils	

In French, all nouns are either **masculine** or **feminine**. The indefinite article ('a' / 'an') and the definite article ('the') change according to the gender and number (singular / plural) of the noun they come before.

	indefinite article ('a' / 'an')	definite article ('the')
masculine singular	<i>un</i> poster (a poster)	<i>le</i> poster (the poster)
feminine singular	<i>une</i> porte (a door)	<i>la</i> porte (the door)
plural	<i>des</i> chaises (some chairs)	<i>les</i> chaises (the chairs)

Shorten **le** and **la** to **l'** in front of a vowel or silent **h**.
l'ordinateur (the computer), *l'araignée* (the spider)

Les matières - *Subjects*

Opinion	Noun (Subject)	Connective	Verb	Intensifier	Adjective			
J'aime (assez) <i>I (quite) like</i>	le français French	parce que car because	c'est <i>it is</i>	trop too	facile easy			
	Je n'aime pas <i>I don't like</i>				le théâtre Drama	difficile difficult		
la technologie Technology					intéressant Interesting			
J'adore <i>I love</i>	la musique Music				le/la prof est <i>the teacher is</i>	assez quite	ennuyeux boring	
	l'anglais English						amusant fun	
Je déteste <i>I hate</i>	l'EPS PE						très very	créatif creative
	l'informatique ICT						nul rubbish	
Je préfère <i>I prefer</i>	l'histoire History						un peu a bit	sympa nice
	les maths Maths							
Ma matière préférée, c'est <i>My favourite subject is</i>	les sciences Science							
	les arts plastiques Art							

When you are giving opinions:

- join your sentences using **et**, **mais** and **parce que**
- use qualifiers such as **très** (very), **vraiment** (really) and **trop** (too) before adjectives
- start your sentences with **Personnellement** ... or **Moi perso** ... (Personally ...).



L'uniforme et les vêtements – Uniform and clothes

Je porte I wear

un a	pantalon / pull / sweat / polo pair of trousers / jumper / sweater / polo shirt	noir / bleu / vert / gris / blanc / violet / rouge / rose / jaune
une a	jupe / veste / chemise / cravate skirt / jacket / shirt / tie	noire / bleue / verte / grise / blanche / violette / rouge / rose / jaune
des some	chaussettes / chaussures / baskets socks / shoes / trainers	noires / bleues / vertes / grises / blanches / violettes / rouges / roses / jaunes

Je pense que c'est chic / confortable / pratique / facile / démodé / ennuyeux.

I think that it is trendy/comfortable/practical/easy/old-fashioned/boring.

un chapeau a hat
une robe a dress / gown
un short shorts
un foulard de tête a head scarf
des tongs flip-flops

Remember, **-s** at the end of words is silent, so **noir** and **noirs** both sound the same.

The colours **vert** and **gris** sound different in the feminine form.

un polo vert → une jupe verte
un polo gris → une jupe grise

Quelle heure est-il? What time is it?



Quelle heure est-il? What time is it?
Il est neuf heures. It is nine o'clock.
à neuf heures at nine o'clock

Make sure you pronounce **heure(s)** correctly.



h at the start of a word is usually silent so you don't pronounce it.
Remember, **-s** on the end of a word is silent too.

Les numéros 31-60 – Numbers 31-60

30 trente	40 quarante	50 cinquante	60 soixante
31 trente-et-un	41 quarante-et-un	51 cinquante-et-un	
32 trente-deux	42 quarante-deux	52 cinquante-deux	
33 trente-trois	43 quarante-trois	53 cinquante-trois	
34 trente-quatre	44 quarante-quatre	54 cinquante-quatre	
35 trente-cinq	45 quarante-cinq	55 cinquante-cinq	
36 trente-six	46 quarante-six	56 cinquante-six	
37 trente-sept	47 quarante-sept	57 cinquante-sept	
38 trente-huit	48 quarante-huit	58 cinquante-huit	
39 trente-neuf	49 quarante-neuf	59 cinquante-neuf	

Au collège – At school

Verb	Detail
Je quitte <i>I leave</i>	la maison <i>the house</i>
J'arrive <i>I arrive</i>	au collège/à l'école <i>at school</i>
Je retrouve <i>I meet</i>	mes amis / mes copains <i>my friends</i>
On commence <i>We start</i>	les cours <i>lessons</i>
On recommence <i>We restart</i>	
Je mange <i>I eat</i>	à la cantine <i>In the canteen</i>
Je chante <i>I sing</i>	dans la chorale <i>in the choir</i>
Je joue <i>I play</i>	dehors <i>outside</i> au foot/rugby/tennis <i>football/rugby/tennis</i>
Je rentre <i>I return/go back</i>	à la maison <i>home</i>

In the present tense, take *-er* off the infinitive and add these endings:

chanter	to sing
<i>je chante</i>	<i>I sing</i>
<i>tu chantes</i>	<i>you sing</i>
<i>il/elle/on chante</i>	<i>he/she sings / we sing</i>
<i>nous chantons</i>	<i>we sing</i>
<i>vous chantez</i>	<i>you (plural or formal) sing</i>
<i>ils/elles chantent</i>	<i>they sing</i>
<i>Je chante</i> means 'I sing ' or 'I am singing '.	

Extend your writing by including expressions of time (sequencers):

d'abord	<i>first of all</i>
ensuite / puis	<i>then</i>
après	<i>afterwards</i>



Dans mon collège, il y a...

In my school, there is/are...

<p>Au collège (at school)</p> <p>Dans mon collège (in my school)</p>	<p>il y a (there is/are)</p>	<p>un gymnase (a sports all)</p> <p>un terrain de sports (a sports field)</p> <p>un terrain de foot (a football pitch)</p> <p>un terrain de basket (a basketball court)</p> <p>un hall (an assembly hall)</p> <p>une piscine (a swimming-pool)</p> <p>une bibliothèque (a library)</p> <p>une cour de récréation (a playground)</p> <p>une salle d'ordinateur (a computer room)</p> <p>une salle de sport (a gym)</p> <p>des laboratoires (labs)</p> <p>des salles de classe (classrooms)</p> <p>des vestiaires (changing rooms)</p> <p>des toilettes (toilets)</p> <p>du harcèlement (bullying)</p> <p>des bons profs (good teachers)</p> <p>trois cents élèves (300 pupils)</p> <p>cinquante professeurs (50 teachers)</p> <p>quatre cours par jour (4 lessons a day)</p> <p>une récréation (a recess)</p> <p>une pause-déjeuner (a lunch break)</p>	<p>mais (but)</p> <p>cependant (however)</p> <p>par contre (to the contrary)</p>	<p>il n'y a pas de (there isn't/aren't any)</p>	<p>gymnase (sports all)</p> <p>terrain de sports (field)</p> <p>terrain de foot (football pitch)</p> <p>terrain de basket (basketball pitch)</p> <p>hall (assembly hall)</p> <p>piscine (swimming-pool)</p> <p>bibliothèque (library)</p> <p>cour de récréation (playground)</p> <p>salle d'ordinateur (computer room)</p> <p>salle de sport (gym)</p> <p>laboratoires (labs)</p> <p>salles de classe (classrooms)</p> <p>vestiaires (changing rooms)</p> <p>toilettes (toilets)</p> <p>harcèlement (bullying)</p> <p>bons profs (good teachers)</p> <p>récréation (recess)</p> <p>pause-déjeuner (lunch break)</p>
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GCSE EXAMINATIONS

Revision

UK in the 21st century

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

Resources & shortages
Food, Water and Energy security
Food security

Development case study

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

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

Barriers to development

Dynamic development

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

Uneven development

YEAR 11

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

Sustaining ecosystems

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

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

Tropical storms, drought & El Nino

Structure of the Earth
Mitigation of tectonic hazards

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

Extreme weather conditions

Global hazards

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

Changing Climates

Global circulation system and climate zones

START OF GCSE
YEAR 10

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

UK's place in the wider world

Globalisation
Clone Towns

Russia – What are the opportunities and challenges facing Russia?

Biomes

Human Issues

Middle East – Why is the Middle East an important region?

Biomes

Human Issues

Transition to GCSE

Going global

BREXIT
Loss of Culture

Location

Skills

Physical Issues

Location

Skills

Physical Issues

Evidence of glaciation in the Lake district

Physical Issues

Skills

Location

Flood hazards and management

Fluvial process including weathering

Changing glaciers

Movement
Glacier formation

YEAR 9

Human Issues

Biomes

Asia – What are the opportunities and challenges facing Asia?

River features and landforms

Hydrology – Why are rivers important?

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

Rocks

Biosphere

Natural resources for energy

Changing Economies – How have shifting economies impacted cities across the globe?

Sectors of industry

Industrialisation of NEEs

Addressing inequality

Sustainable development

Earth structure
Volcano processes
Tsunami

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

Urban problems

Deindustrialisation

Poverty

Development – Why are some places more developed than others?

Human Issues

Biomes

Africa – What are the opportunities and challenges facing Africa?

Migration

Population distribution and settlement factors

Change over time

Measuring development
Distribution of Wealth

YEAR 8

Physical Issues

Skills

Location

Urbanisation

Population change

Difference between weather and climate

Extreme weather
Beast from the East

Coasts – Should we defend our coastlines?

Landforms

Coastal case study

Rainforests

Tourism

Population – Can we solve the problem of overpopulation?

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



Types of Erosion

The break down and transport of rocks – smooth, round and sorted.	
Attrition	Rocks that bash together to become smooth/smaller.
Solution	A chemical reaction that dissolves rocks.
Abrasion	Rocks hurled at the base of a cliff to break pieces apart.
Hydraulic Action	Water enters cracks in the cliff, air compresses, causing the crack to expand.

Types of Transportation

A natural process by which eroded material is carried/transported.	
Solution	Minerals dissolve in water and are carried along.
Suspension	Sediment is carried along in the flow of the water.
Saltation	Pebbles that bounce along the sea/river bed.
Traction	Boulders that roll along a river/sea bed by the force of the flowing water.

Stage One

Water seeps into cracks and fractures in the rock.



Stage Two

When the water freezes, it expands about 9%. This wedges apart the rock.



Stage Three

With repeated freeze-thaw cycles, the rock breaks off.



What is Deposition?

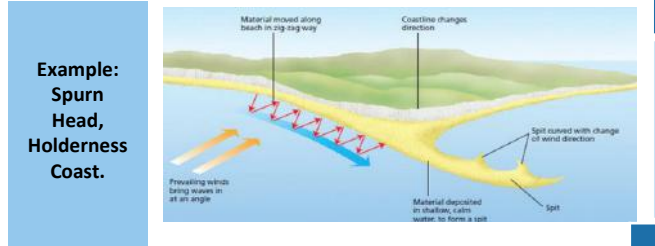
When the sea loses energy, it drops the sand, rock particles and pebbles it has been carrying. This is called deposition.

Types of Weathering

Weathering is the breakdown of rocks where they are.

Biological	Breakdown of rocks via plants and animals
Chemical	Breakdown of rock without changing its chemical composition.

Formation of Coastal Spits - Deposition

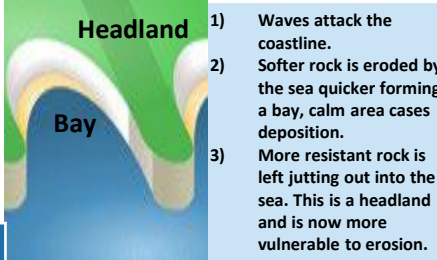


- Example: Spurn Head, Holderness Coast.**
- 1) Swash moves up the beach at the angle of the prevailing wind.
 - 2) Backwash moves down the beach at 90° to coastline, due to gravity.
 - 3) Zigzag movement (Longshore Drift) transports material along beach.
 - 4) Deposition causes beach to extend, until reaching a river estuary.
 - 5) Change in prevailing wind direction forms a hook.
 - 6) Sheltered area behind spit encourages deposition, salt marsh forms.

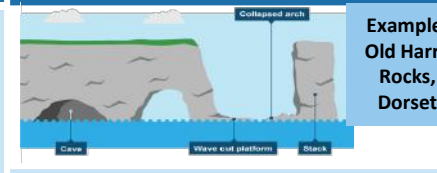
How do waves form?

Waves are created by wind blowing over the surface of the sea. As the wind blows over the sea, friction is created - producing a swell in the water.

Formation of Bays and Headlands



Formation of Coastal Stack



- Example: Old Harry Rocks, Dorset**
- 1) Hydraulic action widens cracks in the cliff face over time.
 - 2) Abrasion forms a wave cut notch between HT and LT.
 - 3) Further abrasion widens the wave cut notch to from a cave.
 - 4) Caves from both sides of the headland break through to form an arch.
 - 5) Weather above/erosion below –arch collapses leaving stack.
 - 6) Further weathering and erosion eaves a stump.

Holderness Coast

The problem is caused by:

- The cliffs which are made of a soft boulder clay, and will therefore erode quickly, especially when saturated.
- Powerful waves - waves at Holderness travel long distances over the North Sea (so have a long fetch)

Impacts:
 About 1.8m of land is lost to the sea every year. Farms, businesses and homes have already been lost. At Great Cowden, 100 chalets have been lost to the sea at the Golden Sands Holiday Park. 80000m2 of farmland is lost each year 200 homes and several roads will fall into the sea by 2100 . 30 Villages have already been lost to the sea since Roman times

in 1991 the council but coastal management in at Mappleton, protecting just 450 m of coastline around Mappleton cost of £2 million.

Coastal Defences

Hard Engineering Defences

Groynes	Wood barriers prevent longshore drift, so the beach can build up.	<ul style="list-style-type: none"> ✓ Beach still accessible. ✗ No deposition further down coast = erodes faster.
Sea Walls	Concrete walls break up the energy of the wave . Has a lip to stop waves going over.	<ul style="list-style-type: none"> ✓ Long life span ✓ Protects from flooding ✗ Curved shape encourages erosion of beach deposits.
Gabions or Rip Rap	Cages of rocks/boulders absorb the waves energy, protecting the cliff behind.	<ul style="list-style-type: none"> ✓ Cheap ✓ Local material can be used to look less strange. ✗ Will need replacing.

Soft Engineering Defences

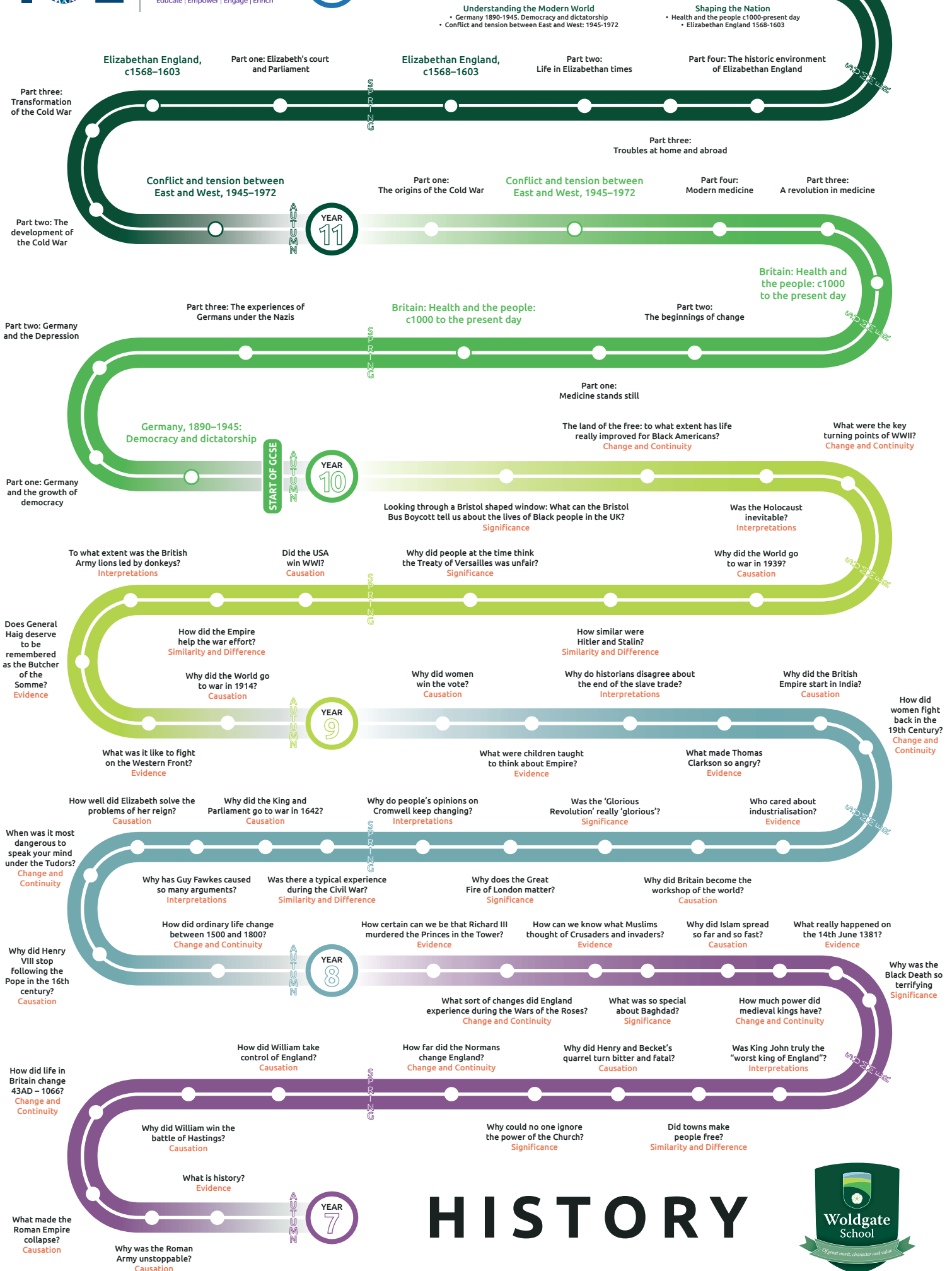
Beach Nourishment	Beaches built up with sand, so waves have to travel further before eroding cliffs.	<ul style="list-style-type: none"> ✓ Cheap ✓ Beach for tourists. ✗ Storms = need replacing. ✗ Offshore dredging damages seabed.
Managed Retreat	Low value areas of the coast are left to flood & erode.	<ul style="list-style-type: none"> ✓ Reduce flood risk ✓ Creates wildlife habitats. ✗ Compensation for land.

Size of waves

<ul style="list-style-type: none"> • Fetch how far the wave has travelled • Strength of the wind. • How long the wind has been blowing for. 	Types of Waves	
	Constructive Waves	Destructive Waves
	This wave has a swash that is stronger than the backwash. This therefore builds up the coast.	This wave has a backwash that is stronger than the swash. This therefore erodes the coast.



GCSE EXAMINATIONS



HISTORY



THE NORMANS

KNOWLEDGE ORGANISER



KEY WORDS

Medieval	A period of history between 1066 and 1500
Monarch	A person who reigns over a kingdom or empire
Heir	Someone who is next-in-line to the throne
Feudal System	Social structure of people used to control the people of England
Domesday Book	A survey of the land and wealth in England
Anglo Saxons	People who lived in England before the Normans
Normans	People who came from the Normandy region of France
Vikings	People who invaded from Scandinavia from 800
Tax	Compulsory money paid to a government or king
Earls	Powerful nobles who controlled a large area of land
Peasants	Poor people who paid taxes and worked the land
Witan	Name of the council which advised the King
Housecarls	Anglo-Saxon warriors who fought with double-headed axes

WHO SHOULD HAVE BEEN KING?

Harold Godwinson, Earl of Wessex

- * Edward's brother-in-law
- * Earl of Wessex, he had already been running some of the country
- * Claimed Edward promised him



William, Duke of Normandy:

- * Claimed both Edward and Harold promised him the throne
- * Ambitious and powerful leader
- * Cousin of Edward



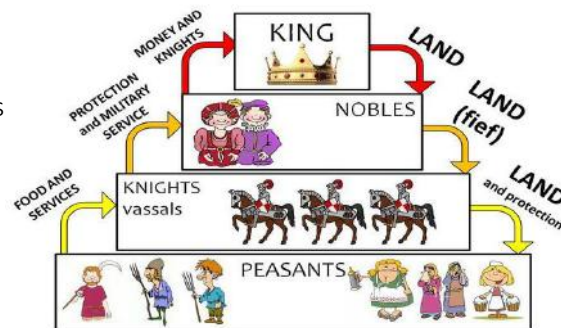
Harald Hardrada, King of Norway:

- * No direct blood ties to the English Royal Family
- * Claim rooted in the earlier Anglo-Danish kingdom
- * Famous and skilled Viking warrior



FEUDAL SYSTEM

- * Used by William to control England.
- * William gave land to Lords and Barons
- * In return, they provided the King with nights for his army.
- * The Knights shared the land out to peasants.
- * Peasants worked the land and did the hard labour.



WHY DID WILLIAM WIN?

Reason	Examples
William's Luck	<ul style="list-style-type: none"> * Some of Harold's best soldiers had been killed at Stamford Bridge * The wind changed at just the right time for William
William's Skill	<ul style="list-style-type: none"> * William was very brave – he took his helmet off in Battle to show he was not dead * William used a large force of Knights on horses
Harold's Mistakes	<ul style="list-style-type: none"> * Harold did not rest his troops at Hastings before the Battle began * Harold's men were exhausted when they reached Hastings. They had marched south in 9 days

DOMESDAY BOOK

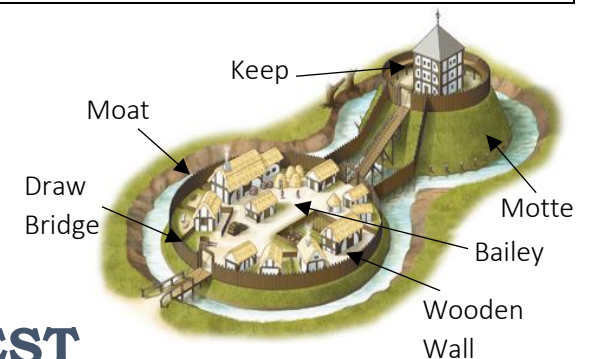
- * Lists all of the land and wealth throughout England.
- * Used to find out how much William could raise in taxes and how many people he had to fight in his army.

TIME PERIODS

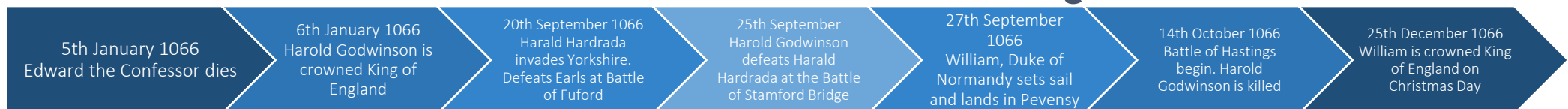
Iron Age	Up to 43AD
Romans	43AD-410AD
Anglo-Saxons	450AD-1066AD
Normans	From 1066AD

CASTLES

William built castles in strategic positions, such as London, Exeter, York and Norwich. Motte and Bailey castles were built from wood to begin with, but were later made from stone as they were harder to attack.

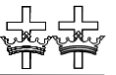


TIMELINE OF THE NORMAN CONQUEST



THE CHURCH, THE KING AND THE PEOPLE

KNOWLEDGE ORGANISER



KEY WORDS

Monastery	Holy buildings where monks lived and worshiped God
The Pope	God's representative on Earth and the leader of the Church
Archbishop of Canterbury	In charge of the Church in England and would crown new Kings
Tithe	A tax paid to the church
Excommunicate	When the Pope banned someone from the church and damned them to hell
Interdict	Churches were locked and no one could go to church
Purgatory	A place where people who have sinned are purified in a 'cleansing fire', and are then accepted into Heaven
Guilds	Made rules in towns on who could practice a trade
Town Council	Made up of the most important men in the town who passed laws
Baron	Senior important noblemen who offered their loyalty to the king in exchange for land
Lord	Lived in manor houses and controlled villages
Villein	Little more than slaves who worked the land of the Lord
Freemen	Poor farmers who controlled small portions of land

THE POWER OF THE CHURCH

Everyone believed in heaven and hell. They had to obey the teachings of the Church to get to heaven.

People paid a tax to the Church as well as to the King. This paid for new churches and monasteries to be built.

Priests and monks were tried in Church courts if they broke got into trouble and were more likely to be let off.

The Pope was God's representative on Earth. No one could tell God what to do, not even a King.

Archbishops were rich and powerful. They advised the King and owned a lot of land.

It was still less than 100 years since the Norman Conquest. Henry II needed to assert his power.

MURDER OF THOMAS BECKET

- * Henry II and Archbishop of Canterbury Thomas Becket disagreed on the power of the church. Henry wanted to reduce to power of Church courts, but Beckett disagreed
- * Becket excommunicated three Bishops who crowned Henry's son King
- * Becket was murdered after some knights overheard Henry II say "wont someone rid me of this troublesome priest?"

KING JOHN

- * King John had his nephew executed for fighting against him
- * John took the lands of several monasteries to punish Pope Innocent III. The Pope placed England under interdict
- * King John raised taxes to pay for the war with France. This angered his barons. They marched to London to force King John to sign a list of demands.

MEDIEVAL TOWNS

Lords could stop their villeins from leaving a village. Towns were much freer and were not controlled by powerful Lords.

Towns were controlled by Guilds, who made rules on who was allowed to practice a trade and to what standard. To learn a craft, it took 7 years as an apprentice, 7 years as a journeyman and then after that you could become a master.

As towns grew richer, the chief townsmen would buy a charter to free them from the Lord's control. They could then buy and sell land and elect a Town Council.

Many outsiders were encouraged into towns to become free people. However, anyone who was strange or different was to be kept out.

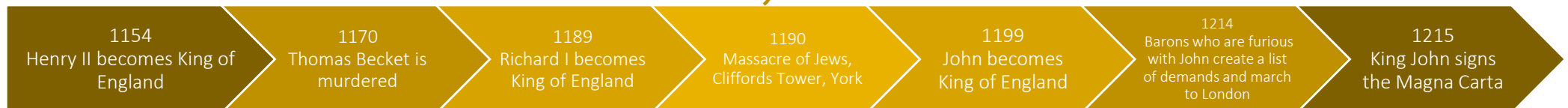
MAGNA CARTA

A Royal Charter signed in 1215 by King John made from a list of demands drawn up by Barons. It stopped him collecting taxes whenever he wanted and put other limits on his power. It also protected the rights of the church.

THE CHURCH



TIMELINE OF THE CHURCH, THE KING AND THE PEOPLE



THE BLACK DEATH AND PEASANTS' REVOLT

KEY WORDS

Epidemic	A widespread occurrence of an infectious disease within a community
Pandemic	An infectious disease occurring across a whole country or world
Bubo	A large black swollen lymph node in the armpit or groin
Flagellation	Whipping or beating yourself or another person to show remorse to God
Infectious	A disease likely to spread to other people
Repentance	The act of showing that you are sorry to God
Revolt	Violent action against a government or King
Statute of Labourers 1351	A law which cut the pay of peasants, made them pay wages back and stopped them from leaving their town
Poll Tax	Money paid to the government, but everyone pays the same amount regardless of how much they earn, which was unfair

RESPONSES TO THE BLACK DEATH

- * Many people believed the Black Death was caused by bad air, so they avoided bad smells and burned sweet-smelling herbs in their homes
- * In London and some other town, flagellants walked the streets whipping themselves
- * Towns often locked their gates to stop travellers bringing the disease in
- * Some Church leaders said the Black Death was punishment for people's sins
- * Some medieval doctors believed the disease was caused by an imbalance of fluids
- * King Edward III believed filth from houses was getting into the air and infecting

WHAT CAUSED THE BLACK DEATH?

The Black Death germs came to Europe on fleas, who lived on rats, which got onto ships.	When the rats died, the fleas needed a new home, so they jumped to people.	If an infected flea bit a person, they would become infected with the Black Death.
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KNOWLEDGE ORGANISER

SYMPTOMS OF THE BLACK DEATH

Day	Symptom
1	Painful swellings called buboes appeared in the victim's armpits and groin. They were usually the size of an egg, but sometimes as big as an apple.
2	The victim vomited and developed a fever. This was in addition to the painful swellings.
3	Bleeding under the skin caused dark blotches all over the body, in places such as the arms and thighs.
4	The disease attacked the nervous system. This caused the victim to suffer spasms. The victim was in terrible pain.
5	Sometimes the buboes burst and a foul-smelling black liquid came out. When this happened the victim usually lived. However, in most cases the victim suffered a painful death

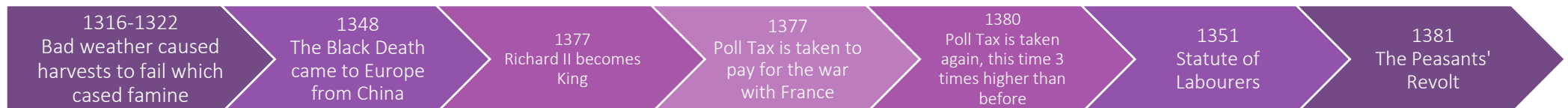
WHY DID PEOPLE REVOLT?

Statute of Labourers 1351	A law which was supposed to keep the wages of peasants as low as they were in 1347
Poll Tax 1377	Britain was at war with France. King Richard II decided to raise money for the war through a poll tax
Poll Tax 1380	The poll tax was collected again in 1379. When it was collected in 1380, it was three times higher than in 1377
Missing Taxpayers	Many peasants hid from the tax collectors. 500,000 less people paid in 1381 than in 1377. More collectors were sent out and people were punished for avoiding them

EVENTS OF 1381

- * Revolts began in Essex and Kent, and peasants marched to London with demands
- * 14th June 1381 - the peasants and the King met at Mile End, where Richard II agreed to meet their demands and asked them to return home peacefully
- * 15th June 1381 - Richard II met their leader, Wat Tyler at Smithfield. Tyler acted rudely in front to the King, and the meeting ended with Wat Tyler being killed
- * It is disputed as to how Tyler died. Some say Walworth, the Mayor of London, stabbed him, others say it was an advisor who didn't let him to leave alive

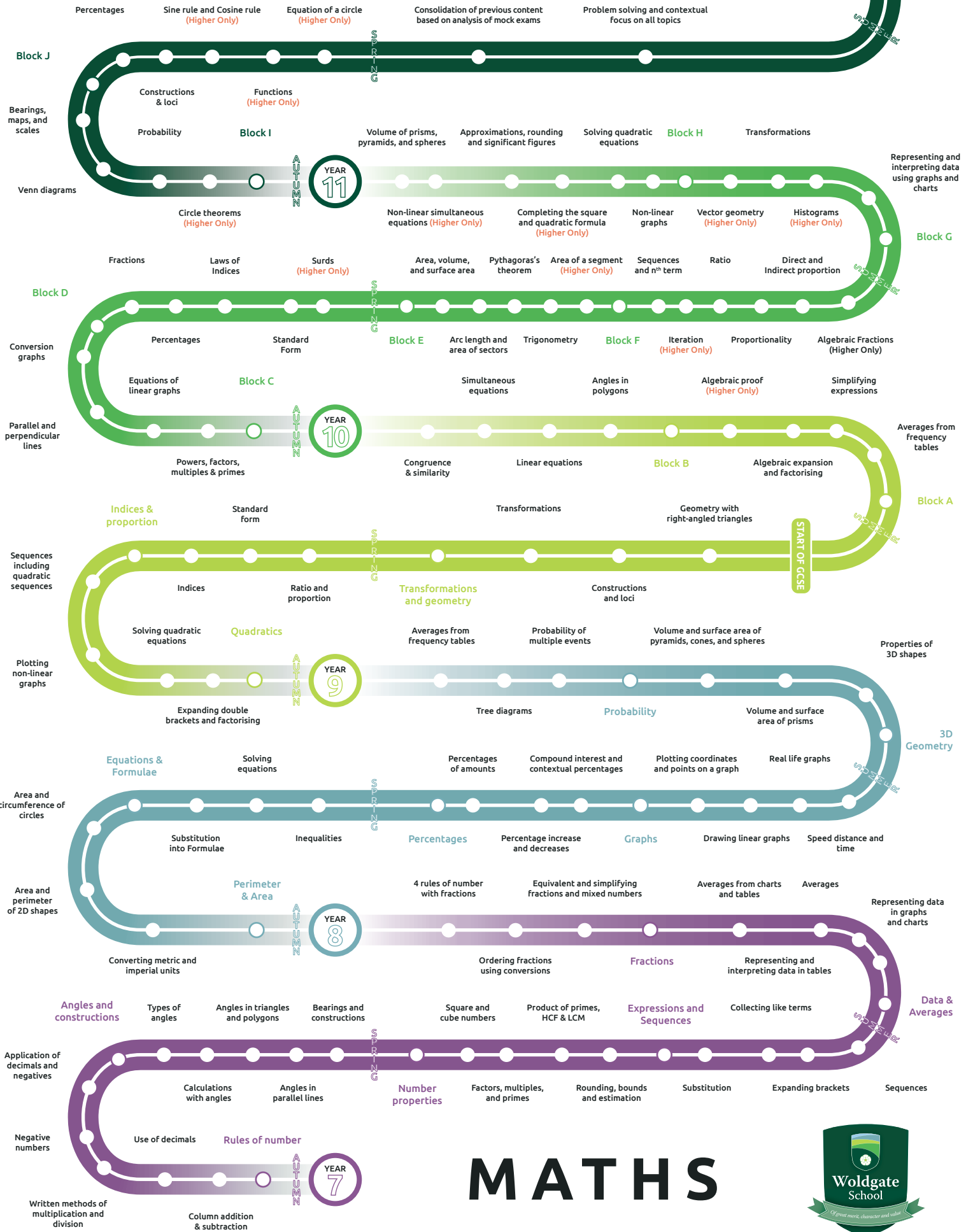
TIMELINE OF THE BLACK DEATH AND PEASANTS' REVOLT





GCSE EXAMINATIONS

3 papers – 1 non-calculator and 2 calculator papers



MATHS



Year 7 – Spring 1, Number Properties Knowledge Organiser



Topic/Skill	Definition/Tips	Example																																								
Time	<p>There are 60 seconds in a minute. There are 60 minutes in an hour. There are 24 hours in a day.</p> <p>am is the time from midnight (12 am) until noon (12 pm) pm is the time from noon until midnight.</p> <p>24-hour clock does not need am or pm. 00:00 is midnight, 12:00 is noon. Afternoon times have hours from 12 until 23. For example, 4:30pm = 16:30</p>	<p>5:20 am = 05:20 7:10 pm = 19:10 12:30 pm = 12:30</p> <p>January – 31 days February – 28 days (or 29 in a leap year) March – 31 days April – 30 days May – 31 days November - 30 June – 30 days December - 31 July – 31 days August – 31 days September – 30 days October – 31 days</p>																																								
Timetables	<p>Bus and train timetables show us the times transport leaves each destination on a journey.</p>	<table border="1"> <tbody> <tr> <td>Worcester</td> <td>05:30</td> <td>07:05</td> <td>07:50</td> <td>10:13</td> </tr> <tr> <td>Fernhill</td> <td>05:40</td> <td>07:16</td> <td>08:07</td> <td>–</td> </tr> <tr> <td>Droitwich</td> <td>05:48</td> <td>07:29</td> <td>08:14</td> <td>10:31</td> </tr> <tr> <td>Wychbold</td> <td>05:55</td> <td>–</td> <td>08:25</td> <td>–</td> </tr> <tr> <td>Sidemoor</td> <td>–</td> <td>–</td> <td>08:32</td> <td>–</td> </tr> <tr> <td>Catshill</td> <td>06:11</td> <td>08:00</td> <td>08:40</td> <td>–</td> </tr> <tr> <td>Marlbrook</td> <td>06:14</td> <td>08:05</td> <td>–</td> <td>–</td> </tr> <tr> <td>Rubery</td> <td>06:21</td> <td>08:11</td> <td>09:02</td> <td>11:02</td> </tr> </tbody> </table>	Worcester	05:30	07:05	07:50	10:13	Fernhill	05:40	07:16	08:07	–	Droitwich	05:48	07:29	08:14	10:31	Wychbold	05:55	–	08:25	–	Sidemoor	–	–	08:32	–	Catshill	06:11	08:00	08:40	–	Marlbrook	06:14	08:05	–	–	Rubery	06:21	08:11	09:02	11:02
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Square number	<p>The number you get when you multiply a number by itself.</p>	<p>1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225...</p> <p>$9^2 = 9 \times 9 = 81$</p>																																								
Square root	<p>The number you multiply by itself to get another number.</p> <p>The inverse of squaring a number.</p>	<p>$\sqrt{36} = 6$</p> <p>because $6 \times 6 = 36$</p>																																								
Cube number	<p>The number you get when you multiply a number by itself and itself again.</p>	<p>1, 8, 27, 64, 125...</p> <p>$2^3 = 2 \times 2 \times 2 = 8$ $10^3 = 10 \times 10 \times 10 = 1000$</p>																																								
Cube root	<p>The number you multiply by itself and itself again to get another number.</p> <p>The inverse process of cubing a number.</p>	<p>$\sqrt[3]{125} = 5$</p> <p>because $5 \times 5 \times 5 = 125$</p>																																								
Index notation	<p>Indices (powers/exponents) are the small numbers written above and to the right of a (base) number. They tell us how many of the base number need multiplying together.</p>	<p>$3^4 = 3 \times 3 \times 3 \times 3 = 81$</p> <p>Diagram illustrating index notation: 8^2. The number 8 is labeled as the base. The number 2 is labeled as the exponent (or index, or power).</p>																																								

Year 7 – Spring 1, Number Properties Knowledge Organiser



Factors	A number that divides exactly into another number without a remainder. It is useful to write factors in pairs	The factors of 18 are: 1, 2, 3, 6, 9, 18 The factor pairs of 18 are: 1, 18 2, 9 3, 6
Prime numbers	A number with exactly two factors . A number that can only be divided by itself and one. The number 1 is not prime , as it only has one factor, not two.	The first eight prime numbers are: 2, 3, 5, 7, 11, 13, 17, 19
Product of Primes	Finding out which prime numbers multiply together to make the original number. Use a prime factor tree . A product of primes is a multiplication containing only prime numbers.	<p>$36 = 2 \times 2 \times 3 \times 3$ or $2^2 \times 3^2$</p>
Multiples	The result of multiplying a number by an integer. The times tables of a number.	The first five multiples of 7 are: 7, 14, 21, 28, 35
HCF	The biggest number that divides exactly into two or more numbers.	The HCF of 6 and 9 is 3 because it is the biggest number that divides into 6 and 9 exactly.
LCM	The smallest number that is in the times tables of each of the numbers given.	The LCM of 3, 4 and 5 is 60 because it is the smallest number in the 3, 4 and 5 times tables.
Rounding	Rounding means making a number simpler but keeping its value close to what it was. Rounding to the nearest 10 means choosing which multiple of 10 it is closest to. Rounding to the nearest integer means to the nearest whole number. Picturing a number line can help.	2158 to the nearest 10 is 2160 2159 to the nearest 100 is 2200 2159 to the nearest 1000 is 2000 78.2 to the nearest integer is 78 78.5 to the nearest integer is 79 78.254 to the nearest integer is 78

Year 7 – Spring 1, Number Properties Knowledge Organiser



<p>Rounding to decimal places</p>	<p>Rounding to 1 decimal place (1 d.p.) means round the number to the nearest tenth, so that the number only has 1 digit after the decimal point. Rounding to 2 decimal places means to round to the nearest hundredth, so that there are 2 digits after the decimal point.</p>	<p>e.g. round 0.3482 to the</p> <p>1 decimal place</p> <p>0.3482</p> <p>0.3 0.35 0.4</p> <p>2 decimal places</p> <p>0.34 0.345 0.3482</p> <p>0.35</p>
<p>Rounding to significant figures</p>	<p>The first significant figure (1.s.f) is the first digit in a number which is not a 0. It is the digit with the most value. E.g. the 1st s.f. is underlined in each of these numbers: <u>3</u>456 <u>6</u>7 0.<u>4</u>03 To round to 1.s.f you need to identify which place value column that digit is in and round to that accuracy.</p>	<p>3476 to 1 s.f is 3000 because the 1st s.f. is in the thousands column.</p> <p>782 to 1 s.f. is 800 because the 1st s.f. is in the hundreds column.</p> <p>0.367 to 1s.f. is 0.4 because the 1st s.f. is in the tenths column.</p> <p>8945 to 2 s.f. is 8900 because the 2nd s.f. is in the hundreds column.</p>
<p>Estimations</p>	<p>Round each number in the calculation to 1 significant figure. ≈ means 'approximately equal to'</p>	$\frac{348 + 692}{2.103} \approx \frac{300 + 700}{2} = 500$
<p>Order of operations</p>	<p>Brackets then Powers (BO/BI) comes first. Multiplication and Division (DM) comes next. Addition and Subtraction (AS) comes last.</p>	<p>$3 + 4 \times 2 = 11$ (do the multiplication first) $3 + (4 + 1)^2$ Brackets: $(5)^2 = 25$ and then add $3 = 28$ $12 \div 2 - 3 = 3$ (division first!)</p>

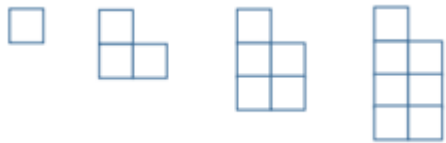
Year 7 – Spring 2, Expressions Knowledge Organiser



Topic/Skill	Definition/Tips	Example
Notation	<p>Variable – A letter in an algebraic expression is called a variable because its value can change (vary).</p> <p>Constant – A constant term is one that does not change. It is either a single number or a symbol that represents a known number.</p> <p>Term – A term is a single mathematical expression. It may be a single number or a single variable.</p> <p>Expression – A mathematical statement written using symbols, numbers or letters. Expressions do not contain an equals sign.</p> <p>Equation – A statement showing that two expressions are equal.</p> <p>Coefficient – How many of the variable you have/a number multiplied by the variable.</p> <p>Power – How many times the variable is multiplied by itself.</p> <p>Brackets – Brackets are used to enclose a group of terms.</p>	<p>$3x + 2y$ contains the variables x and y.</p> <p>$3x + 2 = 4$ contains the constants 2 and 4.</p> <p>$3x + 2y$ The two terms are $3x$ and $2y$.</p> <p>$3x + 2$ $5y^2$</p> <p>$2y - 17 = 15$</p> <p>$3x^2 + 2y$ The coefficient of x^2 is 3. The coefficient of y is 2.</p> <p>x^3 expanded means $x \times x \times x$.</p> <p>$3(x + 2)$</p>
Substitution	<p>Substitute means to replace variables with numbers and then work out the value of the calculation. Remember to follow BIDMAS.</p>	<p>Evaluate $3a + 2b - c$ when $a = 2, b = 3$ and $c = 4$</p> $ \begin{aligned} &3a + 2b - c \\ &= 3 \times 2 + 2 \times 3 - 4 \\ &= 6 + 6 - 4 \\ &= 8 \end{aligned} $
Collecting like terms	<p>Collecting like terms allows expressions to be simplified. They are only like terms if they have the same letter. If they are not like terms you cannot simplify.</p>	$ \begin{aligned} &a + 2a + 3b - b + c \\ &= 3a + 2b + c \end{aligned} $

Year 7 – Spring 2, Expressions Knowledge Organiser



	<p>The sign is part of the term that follows it. Be careful with negatives. Note:</p> $x \times x = x^2$ $x + x = 2x$	
Multiplying and dividing terms	<p>Multiplying: Put the numbers and each letter together.</p> <p>Dividing: Divide the number and cancel out the variables.</p>	$2a \times 3b \text{ means } 2 \times 3 \times a \times b = 6ab$ $12a^2 \div 4a$ $\frac{12a^2}{4a} = 3a$
Expanding brackets	<p>To expand a bracket, multiply each term in the bracket by the expression outside the bracket. Careful with negatives!</p>	$2(x + 6) = 18$ $2x + 12 = 18$
Factorising expressions	<p>The reverse of expanding.</p> <p>Factorising is writing an expression as a product of terms by 'taking out' a common factor. An expression can factorise into one bracket if the terms have a common factor. Divide an expression by its highest common factor and put it into brackets.</p>	$8x + 4$ <p>HCF of $8x$ and 4 is 4.</p> $4(2x + 1)$
Writing expressions	<p>Substitute words for letters. Note: \times (multiply) should not appear in expressions. Also, writing terms such as $1x$ should be avoided.</p>	<p>k is a number. Write an expression for the number that is, five more than k.</p> $k + 5$
Sequences using patterns	<p>Patterns can be used to illustrate sequences.</p>	 <p>The term-to-term rule for this sequence would be $+2$.</p>

Year 7 – Spring 2, Expressions Knowledge Organiser



<p>Term-to-term rule of number sequences</p>	<p>A rule which allows you to find the next term in a sequence if you know the previous term. The term-to-term rule is the rule in which the next term is obtained from the previous term. For example, in an arithmetic (linear) sequence each term is obtained by adding or subtracting a constant value from the preceding term.</p>	<p>First term is 2. Term-to-term rule is +3. Sequence is: 2, 5, 8, 11, 14, ...</p>
<p>Continuing number sequences</p>	<p>Using the term-to-term rule allows you to continue number sequences.</p>	<p style="text-align: center;">60, 74, 88, ...</p> <p>The next three terms in the sequence would be:</p> <p style="text-align: center;">102, 116, 130, ...</p>
<p>nth term rule</p>	<p>A rule which allows you to calculate the term that is in the nth position of the sequence. Also known as the 'position-to-term' rule. n refers to the position of a term in a sequence.</p>	<p>Work out the first five terms of the sequence $4n$.</p> <p style="text-align: center;">$4 \times 1 = 4$ $4 \times 2 = 8$... and so on. 4, 8, 12, 16, 20, ...</p> <p>What is the nth term of the sequence 6, 10, 14, ...</p> <p style="text-align: center;">The first difference is +4. $4 \times 1 = 4$</p> <p>Therefore, we need to add 2 to get to our first term of 6. So, the nth term is: $4n + 2$.</p> <p>The 100th term is $4 \times 100 + 2 = 402$.</p>



Famous number sequences

Fibonacci: A sequence where the next number is found by **adding up the previous two terms**.

Geometric: A sequence of numbers where each term is found by **multiplying the previous one** by a number called the **common ratio, r**.

Triangular numbers: The sequence which comes from a pattern of dots that form a triangle.

Square numbers: A square number is the result when a number has been multiplied by itself.

Cube numbers: A cube number is the result when a number has been multiplied by itself three times.

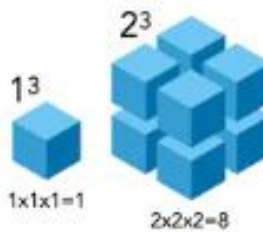
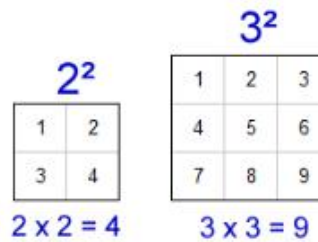
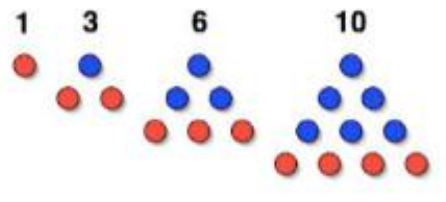
An example of a Fibonacci-type sequence is:

0, 1, 1, 2, 3, ...

An example of a geometric sequence is:

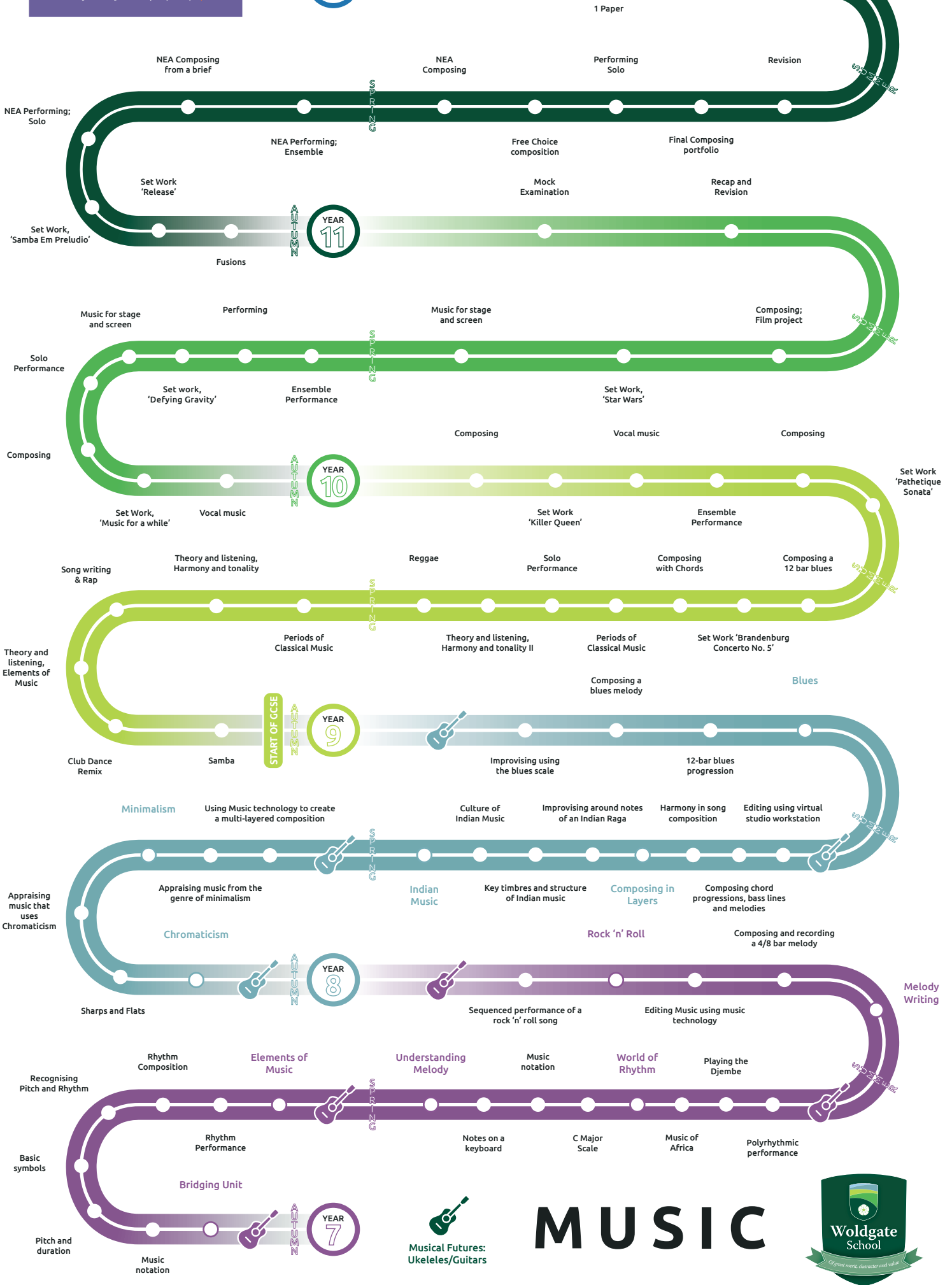
2, 4, 8, 16, 32, ...

The common ratio is 2.





GCSE EXAMINATIONS



MUSIC KNOWLEDGE ORGANISER

KS3 – YEAR 7 Musical Elements

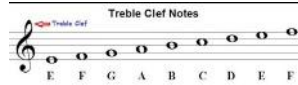
TEMPO

The speed of the music
Italian Terms
 Grave-Very Slowly
 Adagio-Quite Slowly
 Andante-at a walking pace
 Moderato-moderately fast
 Allegro-fast
 Presto-Very Fast
 Accelerando- getting faster
 Rallentando- getting slower



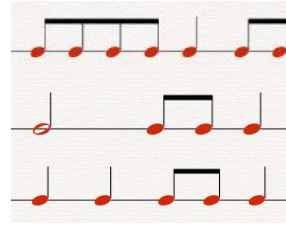
PITCH

How high or low the notes are
Scales -Major scale
 Steps-to the next note up or down in the scale
Melody-one pitch after another gives us a tune



DURATION

The length of the notes
Different note lengths one after another gives us a rhythm.



TIMBRE

The instruments and sounds used in the music

String
 Violin
 Viola
 'Cello
 Double Bass
 Harp



Woodwind

Piccolo
 Flute
 Oboe
 Clarinet
 Saxophone
 Bassoon



Brass

Trumpet
 French Horn
 Trombone
 Tuba



Percussion

Timpani
 Xylophone (wooden)
 Glockenspiel (metal)
 Drum Kit
 Snare Drum
 Tambourine
 Maracas
 Djembe



TEXTURE

How many parts or layers the music has.
 A piece may build up in layers for example in an introduction where each sound is introduced gradually.
 A Capella-If there is only singers and no instruments
 Harmony-more than one part playing together



DYNAMICS

The volume of the music
Italian Terms
 pp-pianissimo-very softly
 p-piano-softly
 mp-mezzo piano-moderately softly
 mf-mezzo forte-moderately loudly
 f-forte-loudly
 ff-fortissimo-Very loudly
 Crescendo- getting louder
 Diminuendo- getting softer



STRUCTURE

How the music is put together using sections
 In songs you have Intros, Verses, chorus, middle 8, outro
 Classical Music has sections; Section A, Section B etc.

SILENCE

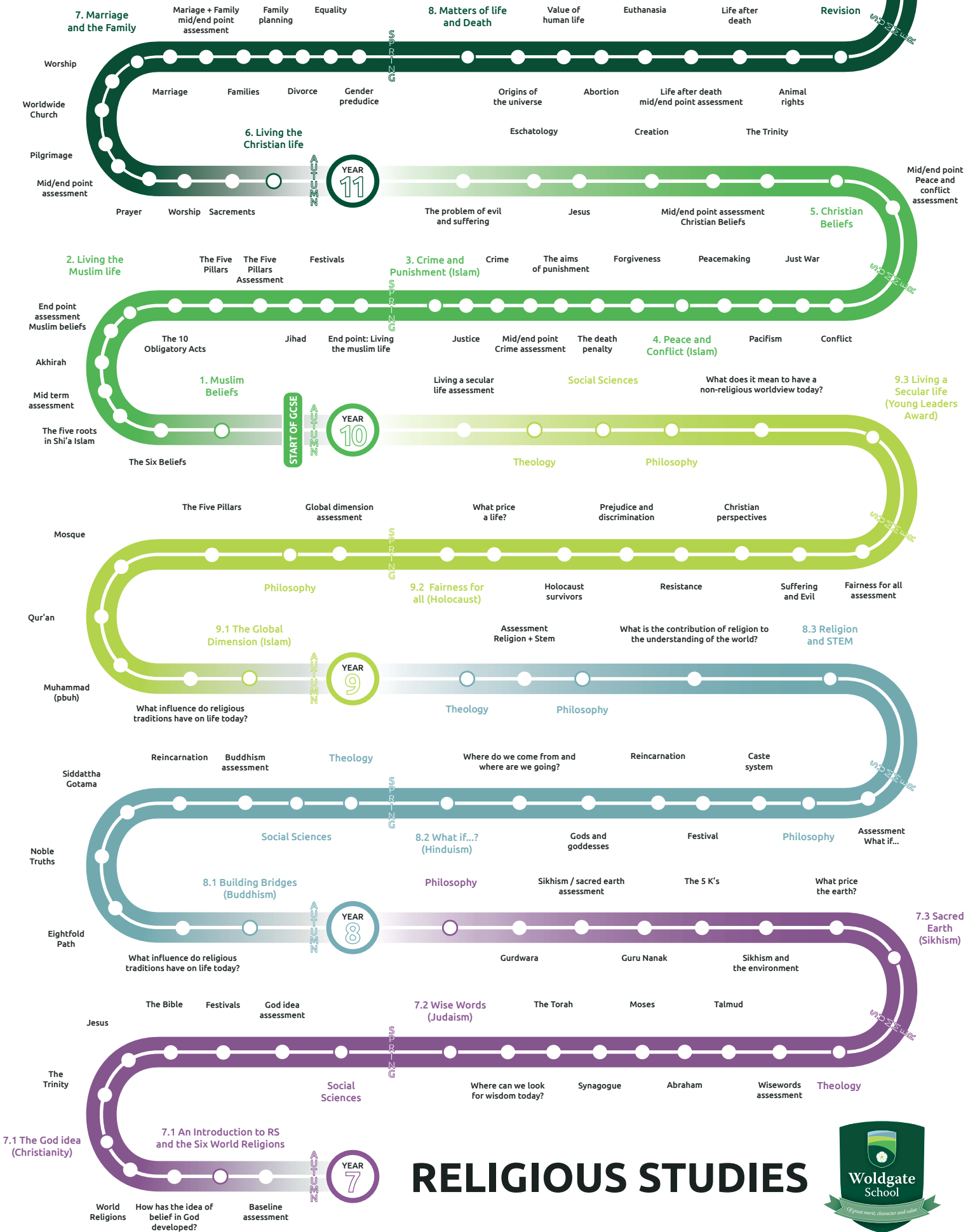
No Sound Used
 Pieces of music will begin and end in silence!
 Silence can be used for dramatic effect. E.g. in scary films

Remember **MAD T SHIRT (below)** to add more detail to your response when listening to music!

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



GCSE EXAMINATIONS



RELIGIOUS STUDIES



Year 7 Unit 7.2 : Wise words : Where can we look for wisdom today ?

KEY WORDS :

Wisdom	The experience of having experience and knowledge.
Prophecy	Foretelling or prediction of what will happen.
Gospels	Matthew, Mark, Luke and John. New testament books.
Bible	Holy book of Christianity.
Qur'an	Holy book of Islam
Guru Granth Sahib	Holy book of Sikhism. Containing hymns and poems by the Gurus.
Vedas	Hindu holy scriptures.
Hadith	The sayings and teachings of Prophet Muhammad.
Tipitaka	Buddhist holy book.
Nicene Creed	Statement of belief in Christianity.
Devotion	Love, loyalty and enthusiasm for something.
Abrahamic Faiths	Monotheistic faiths: Judaism, Christianity and Islam.
Hafiz	A person who has memorized all of the Qur'an.
Incarnation	God came down to earth as Jesus. "of flesh"
Morality	Sense of right and wrong.
Prophet	Someone who declares publicly a message that he/she believes has come from God.
Revelation	When something is made known, God revealing himself.
Spiritual	The non-material part of our life and self- purpose.
Nurture	Care for and protect (someone or something)
Sources of wisdom	Holy teachings or holy books.
Parables	A story with a meaning or spiritual lesson or moral.
Agape	Brotherly love.
Covenant	A promise between God and a prophet.
Torah	The first five books of the Tenakh or Hebrew Bible. It means "law" or "teaching".

KNOWLEDGE ORGANISER

Words of wisdom

 <p>Luke 10:25-37 The Good Samaritan. Jesus said "Love your neighbour as yourself". Jesus said that people should love everyone, including their enemies.</p>	 <p>"Conquer anger with non-anger. Conquer badness with goodness. Conquer meanness with generosity".</p>
<p>"Every act of kindness is charity" Qur'an</p>  <p>Zakah is one of the Five Pillars of Islam. Muslims will give 2.5% of their income to charity.</p>	 <p>"Put your heart, mind, and soul into even your smallest acts. This is the secret of success".</p>
 <p>"He who destroys life it is as if he has destroyed the whole world. He who saves life it is as if he has saved the whole world"</p> <p>Talmud</p>	 <p>"As you regard thyself, so regard others"</p>

Different ways of thinking

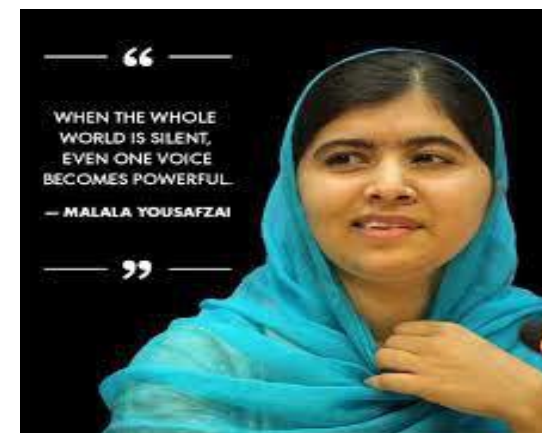
Theology : The study of the nature of God and religious belief.

Philosophy : The study of knowledge, reality and existence.

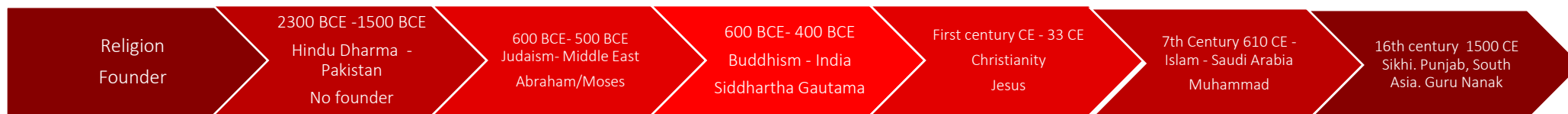
Social sciences: Sociology and Psychology view points.

Ethics: Decision making on what is right/wrong, just/unjust.

Words of Wisdom



World Religions: Prophets

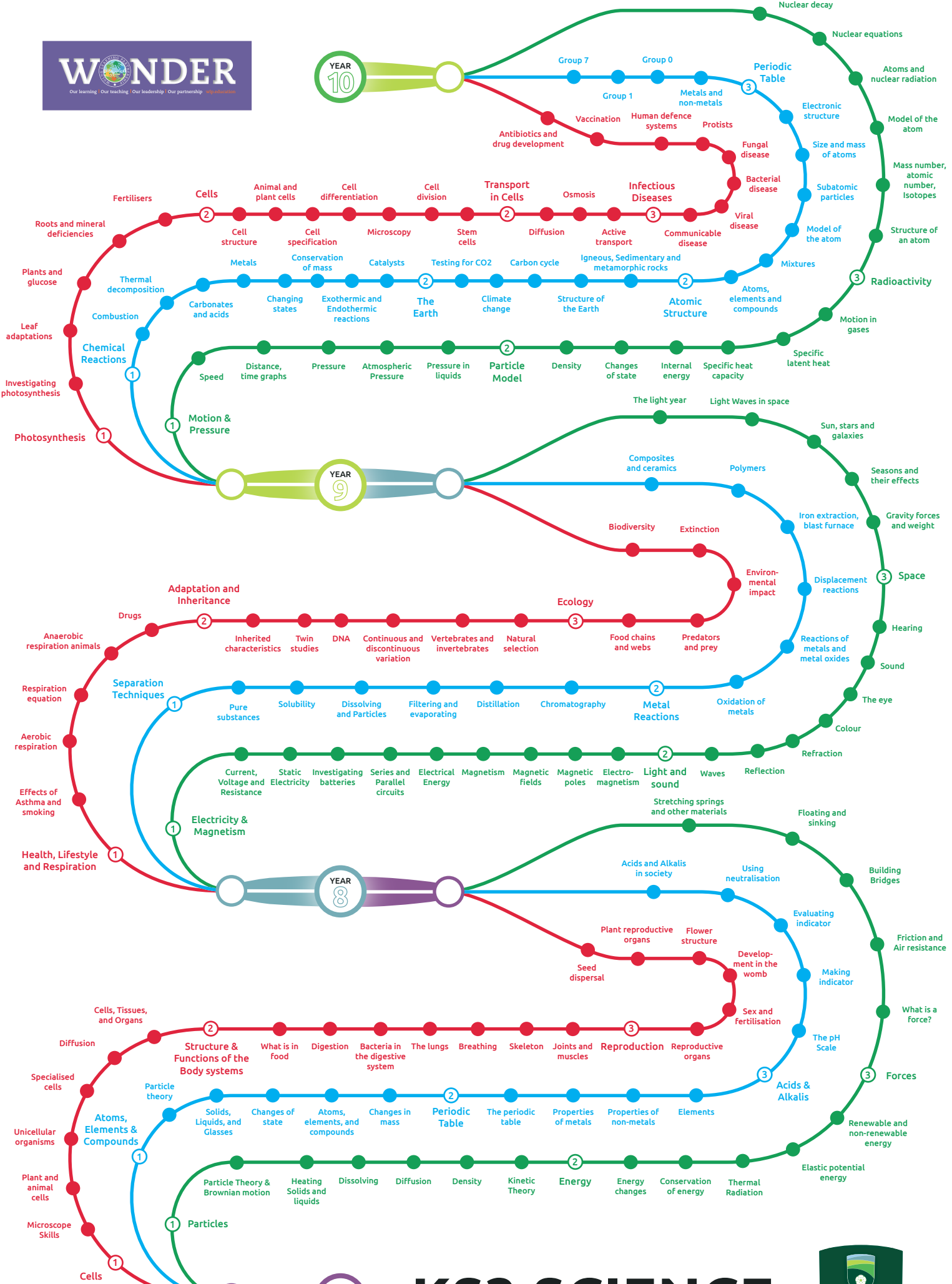


YEAR 10

YEAR 9

YEAR 8

YEAR 7



Scientific Skills

KS3 SCIENCE

■ Biology ■ Chemistry ■ Physics



The Periodic Table

Keyword	Definition
Periodic Table	A tabular representation of all known elements in order based on atomic number.
Atomic Number	The number of protons in the nucleus of an atom. Also called the proton number.
Periods	A horizontal row in the periodic table.
Groups	A vertical column in the periodic table containing elements with similar chemical properties.
Element	A substance made of only one type of atom.
Compound	A Substance where two or more elements have chemically joined together.
Mixture	Two or more substances that are not joined together. The substances can be elements, compounds or both.
Reactive	The tendency of a substance to undergo a chemical reaction.

Further Reading:

<https://www.bbc.com/bitesize/guides/z3vwxnb/revision/5>
<https://www.bbc.com/bitesize/guides/z84wjxs/revision/1>

The periodic table is arranged in rows called periods and columns called groups. Groups contain elements with similar chemical properties.

Group 1 – Alkali Metals

Group 1 metals are very soft metals which can be cut with a knife. They have very low melting and boiling points and are very reactive compared to other metals. The elements become more reactive as you go down group 1.

When the group 1 metals react in water they produce a metal hydroxide and hydrogen gas.

E.g.
 Lithium + Water → Lithium Hydroxide + Hydrogen

Group 2 – Alkali Earth Metals

Group 2 metals are reactive, but less reactive than group 1 elements.

Group 2 metals react with acids to produce a salt and hydrogen. The name of the salt depends on the acid used.

Hydrochloric Acid – Chloride

Sulfuric Acid – Sulfate

Nitric Acid - Nitrate

E.g.
 Magnesium + Hydrochloric Acid → Magnesium Chloride + Hydrogen

Magnesium + Sulfuric Acid → Magnesium Sulfate + Hydrogen

Magnesium + Nitric Acid → Magnesium Nitrate + Hydrogen

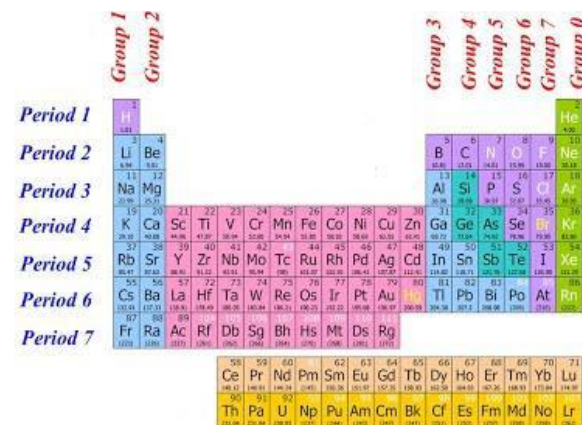
Group 2 metals become more reactive when you go down group 2.

Group 7 – The Halogens

Group 7 elements become less reactive when you move down the group. This can be shown as a displacement reaction.

Group 0 – The Noble Gases

Group 0 elements are not reactive. This is because the atoms have full outer shells.



Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Lithium - Li Sodium - Na Potassium - K	Beryllium - Be Magnesium - Mg Calcium - Ca	Boron - B Aluminium - Al Gallium - Ga	Carbon - C Silicon - Si Germanium - Ge	Nitrogen - N Phosphorus - P Arsenic - As	Oxygen - O Sulfur - S Selenium - S	Fluorine - F Chlorine - Cl Bromine - Br	Helium - He Neon - Ne Argon - Ar

Matter

Keyword	Definition
Particle	A term for a small piece of matter. For example atoms.
Matter	A substance which is made up by atoms or molecules.
Internal Energy	The total kinetic energy and potential energy of the particles in an object.
Specific Heat Capacity	The amount of energy needed to raise the temperature of 1kg of substance by 1°C.
Thermal Conductivity	A measure of how well a material conducts energy when it is heated.
Conduction	The transfer of heat through a material by transferring kinetic energy from one particle to another.
Convection	The transfer of thermal energy through a moving liquid or gas.
Infrared Radiation	Electromagnetic radiation emitted from a hot object.
Pressure	The force exerted per unit of area. Pressure = force ÷ area
Density	The amount of mass that 1cm ³ of a substance has.
Density (formula)	Density = mass ÷ volume $\rho = m \div v$

Further Reading:

<https://www.bbc.co.uk/bitesize/guides/ztrtd2p/revision/1>
<https://www.bbc.co.uk/bitesize/guides/z2gjt4/revision/5>
<https://www.bbc.co.uk/bitesize/guides/zssbgk7/revision/1>

Calculating Pressure

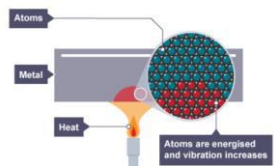
Pressure = Force ÷ Area

$$P = \frac{F}{A}$$

← N
← m²
← N/m²

Conduction

Heat energy is conducted from the hot end of an object to the cold end. In metals, there are 'free electrons'. This is when electrons in a metal can leave their atoms and move through the structure. When the metal is heated, the particles gain kinetic energy and energy is transferred from the hot part of the metal to the cooler parts because of the movement of the free electrons.



Convection

Liquids and gases are fluids because they can be made to flow. Liquids and gases expand when they're heated. The fluids in hot areas are less dense than in cold areas, so the particles rise into the colder area. The fluids then cool, and become more dense. Therefore, the cold fluids fall into the warmer areas. In this way, convection currents that transfer heat from place to place are set up.



Forces between particles:

Solid: There are strong forces of attraction between the particles in a solid. Therefore, particles can only vibrate in a fixed position.

Liquid: There are weaker forces of attraction between the particles in a liquid. Therefore, the particles are close together, and are able to move around each other.

Gas: The forces of attraction between the particles are overcome. Therefore, the particles are far apart and move quickly in all directions.

Solid	Liquid	Gas
The particles vibrate in a fixed position.	The particles are close together and move around each other.	The particles are far apart and move quickly in all directions.
The particles cannot move from place to place.	The particles are arranged in a random position.	The particles are arranged in a random way.
Particles have a fixed shape and cannot flow.	The particles flow and take the shape of the bottom of their container.	The particles flow and completely fill their container.
The particles cannot be compressed (squashed)	The particles cannot be compressed.	The particles can easily be compressed.

Density:

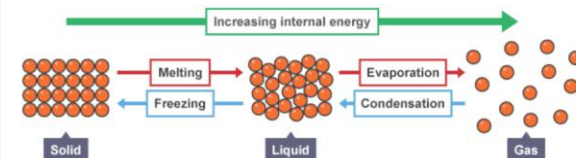
1kg of a gas has a larger volume than 1kg of a solid. There is empty space between particles in a gas, but in a solid, they're tightly packed together.

Calculating Density:

Density = Mass ÷ Volume
Density = 20g ÷ 200cm³
Density = 0.1g/cm³

Internal Energy:

The internal energy is the total amount of kinetic energy and potential energy of all the particles in the system.



Specific heat capacity

- This is the amount of energy needed to raise the temperature of 1kg of a material by 1°C

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

← Energy (J)
← Mass (kg)
← Specific heat Capacity (J °C⁻¹ kg⁻¹)
← Change in temperature (°C)

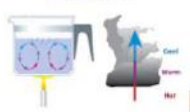
Conduction

Energy is transferred by direct contact



Convection

Energy is transferred by the mass motion of molecules



Radiation

Energy is transferred by electromagnetic radiation

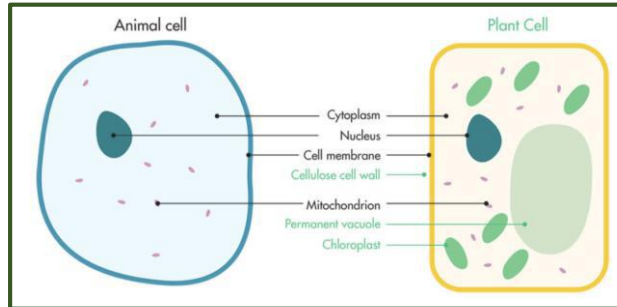
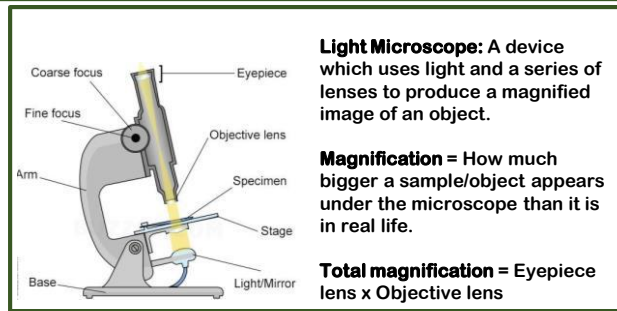


Cells

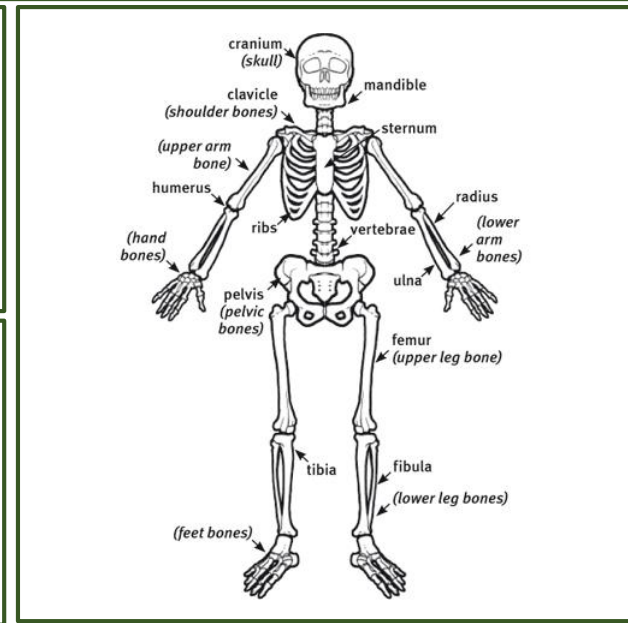
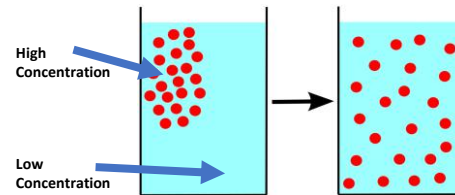
Keyword	Definition
Cell	Basic unit of life. Unicellular organisms only have one cell. Multicellular organisms have many cells.
Cell Membrane	Controls the movement of substances in and out of the cell.
Cytoplasm	Jelly-like substance where chemical reactions take place.
Nucleus	Carries genetic information and controls the cell.
Mitochondria	Where respirations takes place.
Cell Wall	Made of cellulose, provides support to the cell.
Vacuole	Contains cell sap.
Chloroplasts	Contains the green pigment chlorophyll, the site of photosynthesis.
Tissue	Something made from just one type of specialised cell.
Organ	Something made from different groups of specialised cells all working together.
Organ System	When a number of organs work together.
Synovial Joint	A freely moveable joint. Examples include the hip, shoulder, elbow and knee joints.

Further Reading:

<https://www.bbc.com/bitesize/guides/z9hyvcw/revision/2>

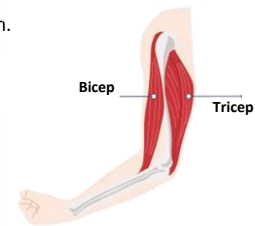


Diffusion: The movement of particles from an area of high concentration to an area of low concentration. Substances diffuse into and out of cells.



Antagonistic Muscles:

- Muscles work by getting shorter.
- Muscles can only pull and can't push.
- Muscles work in pairs.
- When you raise your forearm, the biceps contract and the triceps relax.
- When you lower your forearm, the biceps relax and the triceps contract.

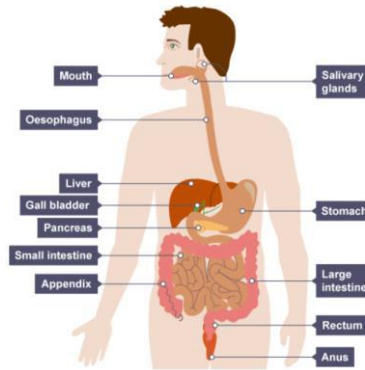


Red Blood Cell	Sperm Cell	Root Hair Cell	Palisade Cell	Nerve Cell	Egg Cell
Carries blood around the body. Adaptations: No nucleus, large surface area and biconcave shape.	Carries the male genes. Adaptations: Tail for swimming, mitochondria for energy, acrosome to break down the egg cell.	Take in water from the soil. Adaptations: Long & thin; large surface area for maximum water absorption. Thin cell walls.	Production of food for the plant. Adaptations: Tall and thin. Lots of chloroplasts to absorb sunlight for photosynthesis.	Carry signals around the body. Adaptations: Long axon. Myelin sheath.	Carries the female genes. Adaptations: Lots of mitochondria. Outer layer hardens once fertilised.

Digestion

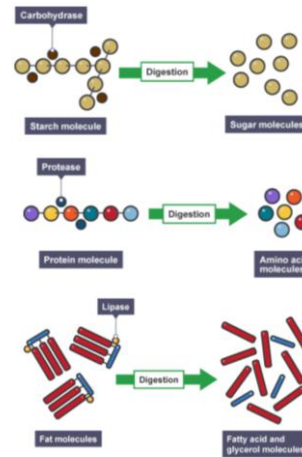
Keyword	Definition
Digestion	The breakdown of large insoluble food molecules into smaller soluble ones.
Digestive System	Organ system involved in breaking food down so that it can be absorbed into the bloodstream.
Absorbed	When a substance is taken in by something or moved across a barrier such as a cell membrane.
Amylase	An enzyme that can break down starch into simple sugars.
Lipase	Enzyme that breaks down lipids (fats & oils).
Carbohydrase	Enzyme that breaks down carbohydrates.
Protease	Enzyme that breaks down proteins.
Enzyme	A protein which catalyses or speeds up a chemical reaction.
Surface Area	The area of the surface of an organism or membrane.
Villi	Finger-like projections in the small intestine that provide a large surface area for the absorption of food.
Capillary	Tiny blood vessels with walls one-cell thick where exchange of materials occurs.
Bile	Substance produced in the liver. It emulsifies fats to prepare them for digestion.
Pancreas	Produces biological catalysts called enzymes which speeds up the digestive reactions.
Excretion	Process by which waste products from chemical reactions in an organism are removed.

The food we eat has to be broken down into other substances that our bodies can use. This is called digestion. Without this process, we could not absorb the food into our bodies and use it.



Organ	Function
Oesophagus	Also known as the gullet. Connects the mouth to the stomach. Food is pushed down using contractions of muscles.
Liver	Production of bile.
Stomach	Churns and mixes the food with hydrochloric acid and enzymes.
Pancreas	Produces biological catalysts called enzymes which speeds up the digestive reactions.
Small Intestine	Absorption of digested food into the bloodstream, production of enzymes to aid digestion.
Large Intestine	Absorption of excess water.
Rectum	Storage of faeces (undigested material) before excretion.
Anus	Where faeces are excreted (removed from the body).

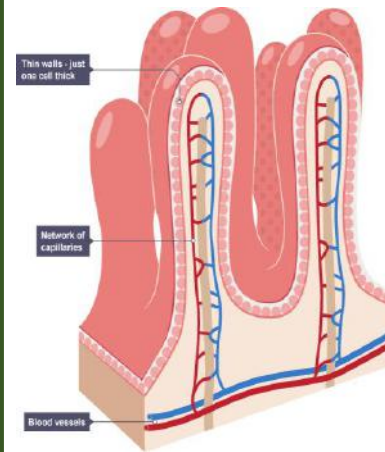
Enzymes are not living things. They are special proteins that can break large molecules into smaller molecules.



Minerals, vitamins and water are already small enough to be absorbed by the body without being broken down, so they're not digested.

Digestive enzymes cannot break down dietary fibre, which is why the body cannot absorb it.

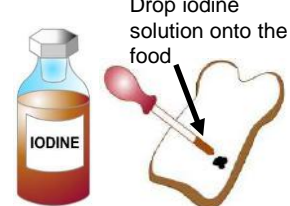
Adaptations of the Small Intestine



The small intestine is adapted for efficient absorption of digested food into the blood stream by:

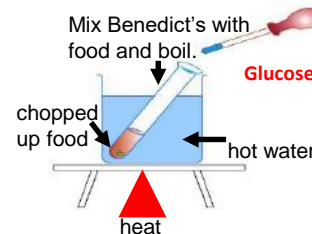
- Having a very large surface area.
- Surrounded by lots of blood capillaries.
- Thin walls (1 cell thick) for faster absorption.

Starch Test



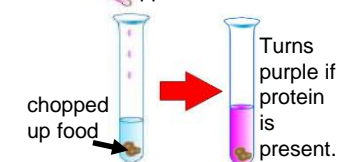
Mix Benedict's with food and boil.

Glucose Test



potassium hydroxide & Copper Sulfate

Protein Test



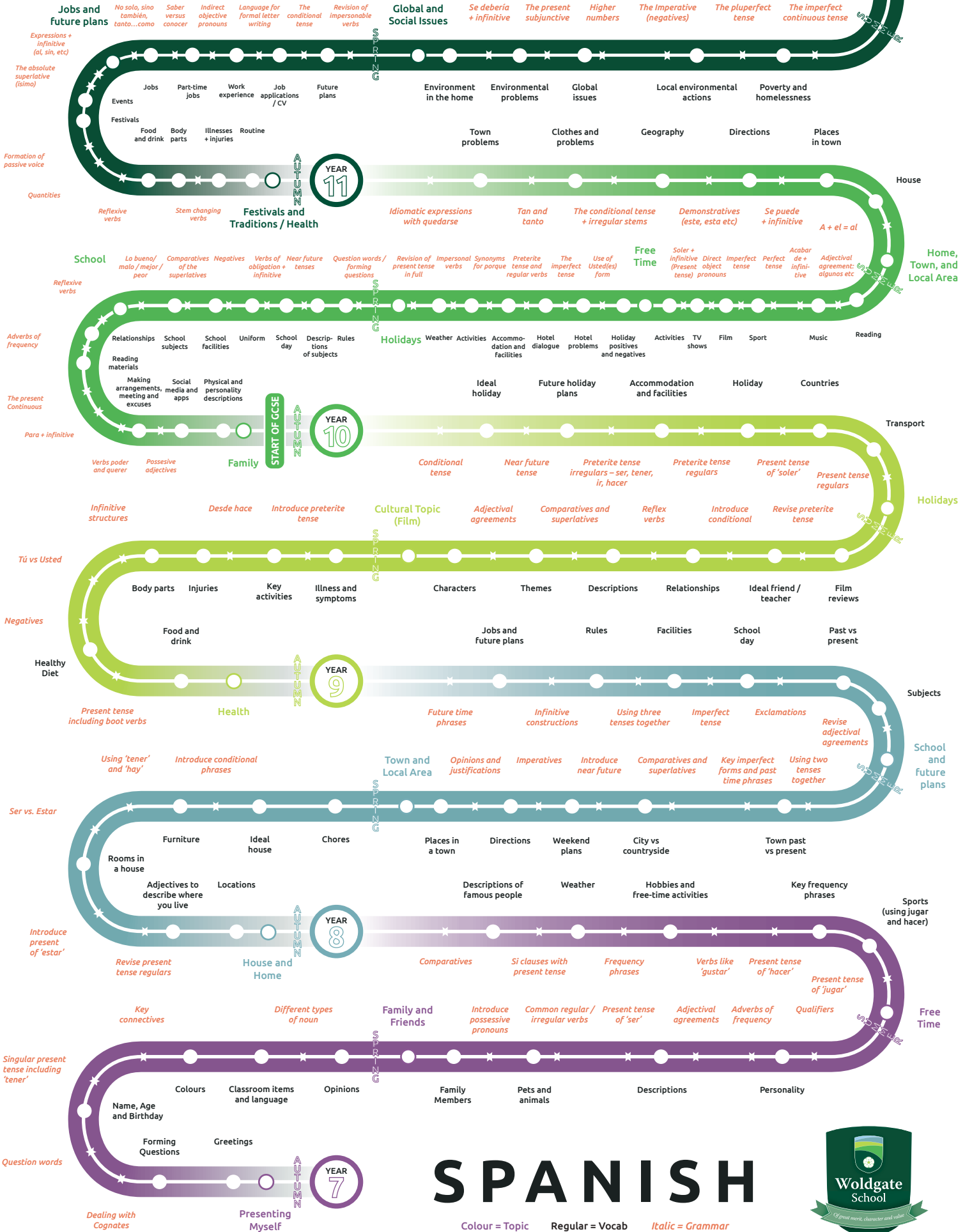
Further Reading:

<https://www.bbc.com/bitesize/guides/z9pv34j/revision/1>
<https://www.bbc.com/bitesize/guides/zwqycdm/revision/1>



GCSE EXAMINATIONS

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



SPANISH

Colour = Topic Regular = Vocab *Italic = Grammar*





Mi familia – My family

En mi familia hay... personas: mi... In my family there are... people: my...

padre	father
madre	mother
tío/a	uncle/aunt
abuelo	grandfather
abuela	grandmother
hermano/a	brother/sister
primo/a	(male/female) cousin
esposo/a	husband/wife
hijo/a	son/daughter
cuñado/a	brother-/sister-in-law

bisabuelo	great-grandfather
bisabuela	great-grandmother
hermanastro	step/half-brother
hermanastra	step/half-sister
madrastra	step-mother
padrastra	step-father
sobrino/a	nephew/niece
nieto	grandson
nieta	granddaughter
gemelo/a	twin

Possessive adjectives

In Spanish, the words for 'my', 'your' and 'his/her' differ according to whether the noun that follows is singular or plural.

	singular	plural
my	mi	mis
your	tu	tus
his/her	su	sus

my brother *mi hermano*
my brothers *mis hermanos*

Verb	Noun	Name	Connective	Verb	Age	
Tengo <i>I have</i>	un hermano <i>a brother</i> una hermana <i>a sister</i> un hermanastro <i>a step/half-brother</i> una hermanastra <i>a step/half-sister</i> dos hermanos <i>two brothers</i> dos hermanas <i>two sisters</i>	que se llama(n)... <i>who is/are called</i>	y <i>and</i>	tiene(n) <i>He/she is (/they are)...</i>	dos tres cuatro once quince veinte	años. <i>years old.</i>
No tengo <i>I don't have</i>	hermanos. <i>brothers/siblings.</i> hermanas. <i>Sisters.</i>	Soy hijo/a único/a. <i>I am an only child.</i>				

↑ ¡Arriba, arriba!

If you have a younger or older brother or sister, use *menor* and *mayor*:

hermano menor younger brother
hermana mayor older sister

Los números 31 – 100



Learning Spanish numbers

The easiest way to learn numbers 1–100 in Spanish is to focus firstly on numbers 1–20, then 21–29, which have a slightly different spelling rule. Finally, learn 30, 40, 50, 60, 70, 80, 90, 100, remembering that all the numbers in between follow the same pattern, with *y* as a link word. So to know 1–100 in Spanish, you only really need to learn 37 numbers!

¿Cómo eres? – What are you like?

Yo tengo (I have)	el pelo (the hair)	castaño (brown)	y (and)	a media melena (medium length)	liso (straight)
Tú tienes (You have)		moreno (dark brown)		corto (short)	rapado (very short)
Él tiene (He has)		negro (black)		en punta (spiky)	rizado (curly)
Ella tiene (She has)		pelirrojo (red)		largo (long)	ondulado (wavy)
Mi amigo tiene (My friend (m) has)	los ojos (the eyes)	rubio (blond)	y (and)	llevo (I wear)	gafas (glasses)
Mi amiga tiene (My friend (f) has)		azules (blue)		llevas (you wear)	barba (a beard)
		marrones (brown)		lleva (s/he wears)	bigote (a moustache)
		negros (black)		no llevo (I don't wear)	
		verdes (green)		no llevas (you don't wear)	
				no lleva (s/he doesn't wear)	

Soy (I am)

Él (He)	alto (tall (m))	fuerte (strong)	serio (serious (m))
Mi hermano (My brother)	amable (kind)	guapo (good looking (m))	simpático (nice (m))
Mi hijo (My son)	cariñoso (affectionate (m))	hablador (talkative (m))	trabajador (hard working (m))
Mi novio (My boyfriend)	débil (weak)	joven (young)	tranquilo (relaxed (m))
Mi padre (My father)	delgado (slim (m))	perezoso (lazy (m))	tonto (stupid (m))
Mi tío (My uncle)	deportista (sporty)	ruidoso (noisy (m))	viejo (old (m))
Ella (She)	alta (tall (f))	fuerte (strong)	seria (serious (f))
Mi hermana (My sister)	amable (kind)	guapa (good looking (f))	simpática (nice (f))
Mi hija (My daughter)	cariñosa (affectionate (f))	habladora (talkative (f))	trabajadora (hard working (f))
Mi madre (My mother)	débil (weak)	joven (young)	tranquila (relaxed (f))
Mi novia (My girlfriend)	delgada (slim (f))	perezosa (lazy (f))	tonta (stupid (f))
Mi tía (My aunt)	deportista (sporty)	ruidosa (noisy (f))	vieja (old (f))
Mis abuelos (My grandparents)	altos/as (tall (pl))	amables (kind (pl))	débiles (weak (pl))
Mis amigas (My friends (f))	deportistas (sporty (pl))	habladores/as (talkative (pl))	
Mis hermanas (My sisters)			
Mis padres (My parents)			

Aa Gramática p.45; WB p.23











Ser
It is vital that you know the verb *ser* in full. Like *tener* it is irregular.

soy	I am
eres	you are
es	he/she/it is
somos	we are
sois	you are (pl)
son	they are

Use it for physical descriptions:
Mi primo **es** delgado ¿Cómo **eres**?
Yo **soy** alta Mis hermanos **son** bajos

súper – really	bastante - quite
muy – very	un poco – a bit

Mi tiempo libre – My free time

 a. To browse the Internet a navegar por Internet	 b. To relax at home b descansar en casa	 g. To dance salsa g bailar salsa	 h. To chat on my phone h chatear en el móvil
 c. To listen to music c escuchar música	 d. To play on the games console d jugar a la videoconsola	 i. To watch TV i ver la tele	 j. To read books j leer libros
 e. To practise sports e practicar deportes	 f. To go out with my friends f salir con mis amigos		

The present tense of regular verbs

In Spanish, there are three types of infinitive: **-ar** (e.g. **hablar** – to talk), **-er** (e.g. **comer** – to eat) and **-ir** (e.g. **vivir** – to live). To form the present tense, take off the **-ar**, **-er** or **-ir** and add:

	-ar	-er	-ir
I	<i>o</i>	<i>o</i>	<i>o</i>
you (singular)	<i>as</i>	<i>es</i>	<i>es</i>
he/she/it	<i>a</i>	<i>e</i>	<i>e</i>
we	<i>amos</i>	<i>emos</i>	<i>imos</i>
you (plural)	<i>áis</i>	<i>éis</i>	<i>ís</i>
they	<i>an</i>	<i>en</i>	<i>en</i>

El deporte - Sport

<i>jugar</i>	to play
<i>juego</i>	I play
<i>juegas</i>	you (sing) play
<i>juega</i>	he/she plays
<i>jugamos</i>	we play
<i>jugáis</i>	you (pl) play
<i>jugan</i>	they play

<i>hacer</i>	to do
<i>hago</i>	I do
<i>haces</i>	you (sing) do
<i>hace</i>	he/she does
<i>hacemos</i>	we do
<i>hacéis</i>	you (pl) do
<i>hacen</i>	they do

Jugar al...	To play...	Hacer...	To do/go...
1 tenis	Tennis	6 atletismo	Athletics
2 fútbol	Football	7 natación	Swimming
3 baloncesto	Basketball	8 equitación	Horse-riding
4 bádminton	Badminton	9 gimnasia	Gymnastics
5 balonmano	handball	10 ballet	ballet

Adverbs of Frequency	
siempre	Always
a menudo	Often
de vez en cuando	From time to time
a veces	Sometimes
raramente	Rarely
nunca	Never

Mis gustos deportivos – My sporting preferences

Noun (Sport/Hobby)	Verb	Adverb of intensity	Adjective
el fútbol/rugby/golf/hockey/... <i>football/rugby/golf/hockey/...</i>	<i>es</i> <i>is</i>	muy <i>very</i>	fácil <i>easy</i>
el ballet <i>Ballet</i>		bastante <i>quite</i>	difícil <i>difficult</i>
el ciclismo <i>Cycling</i>		un poco <i>a bit</i>	emocionante <i>exciting</i>
la natación <i>Swimming</i>		extremadamente <i>extremely</i>	divertido/a <i>fun</i>
la equitación <i>Horse-riding</i>		totalmente <i>totally</i>	aburrido/a <i>boring</i>
		realmente <i>really</i>	lento/a <i>slow</i>
			rápido/a <i>fast</i>

3.3 Mis gustos deportivos

aburrido/a	<i>boring</i>
apasionante	<i>exciting</i>
difícil	<i>difficult</i>
divertido/a	<i>fun</i>
emocionante	<i>exciting</i>
fácil	<i>easy</i>
lento/a	<i>slow</i>
rápido/a	<i>fast</i>
me chifla	<i>I love</i>
me fascina...	<i>... fascinates me</i>
me interesa...	<i>... interests me</i>
me mola	<i>I love</i>
en mi opinión	<i>in my opinion</i>
para mí	<i>for me</i>
porque	<i>because</i>

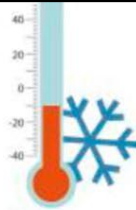
¿Qué tiempo hace? – What is the weather like?

a. It's sunny



a Hace sol

b. It's cold



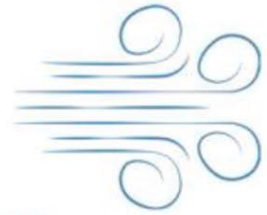
b Hace frío

c. It's raining/rainy./It rains



c Llueve

d. It's windy



d Hace viento



e Nieva

e. It's snowing/snowy./It snows



f Hace calor

f. It's hot



g Hay tormenta

g. It's stormy



h Hay niebla

h. It's foggy

Si = if

Quando = when

E.g.

Si hace frío... (If it's cold...)

Quando llueve... (When it's raining...)

! ¡Atención!

Note that *sí* (with an accent) means 'yes' and *si* (without an accent) means 'if'. They sound exactly the same!



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