



PENISTONE GRAMMAR SCHOOL

Achieving Excellence through a Values-Driven Education

YEAR 8 BOOK 1

ESSENTIAL KNOWLEDGE SHEETS CURRICULUM BOOK

Aim High

Be Determined

Be Kind

Be Supportive

Be Proud

NAME

MENTOR GROUP



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To make the most of your essential knowledge book, you must:

1. Bring it to school every day and have it available on your desk in every lesson.
2. Keep all your essential knowledge sheet books as they provide you with the essential knowledge for each topic and subject you learn.
3. Take pride in your book, keeping it in excellent condition.
4. Write your name on the front of the book.
5. Be aware that if you lose or damage your book it is your responsibility to replace it at a cost of £4.

What is an Essential Knowledge Book?

An effective learning tool to help you retain, revise and retrieve the essential knowledge of a topic within your subjects. The Essential Knowledge Sheet for each topic is usually no more than two sides of information that includes core facts, concepts, diagrams, vocabulary and quotations that you need to know and understand to master a topic.

Why Essential Knowledge Sheets?

They provide you, your teachers and parents/carers with an overview of a topic by having the core knowledge, diagrams, explanations and key terms in one place. They allow you to routinely refer to and 'check off' what you know and understand as you are taught a topic.

Research evidence shows that the regular retrieval of knowledge helps us to know more, remember more and do more. This then allows you to store knowledge in, and recall it from your long-term memory, freeing up space in your working memory to take in new knowledge and information. The better you know the essential knowledge of a subject, the better you will be able to apply it to problems, questions, assessments, home learning, and further increase your independence within lessons and at home.

How to use your Essential Knowledge Sheets

The most powerful use of an Essential Knowledge Sheet is as a self-quizzing tool. For example:

1. **READ → COVER → WRITE → CHECK → QUIZ**

Read a chunk of information from your essential knowledge sheet (more than once is most effective), Cover it up, Write what you remember, Check to see if you have remembered the information correctly. If you haven't remembered it all correctly then re-do the process. When you are confident in your retention of the knowledge, quiz yourself (or ask a friend or family member) to see if you can apply the knowledge learned to questions, problems and practice tasks.

2. **Mind Maps**

Mind mapping is a diagram to visually represent information. It is a graphic technique you can use to translate what you know of a topic/concept into a visual picture. Use knowledge learned from your Essential Knowledge Sheet to create mind maps. Make sure to use colours and images and keep writing to a minimum. This technique embeds essential knowledge into your long-term memory.

3. **Flash Cards**

Use your Essential Knowledge Sheets to create flash cards. Write the question/key term on one side and the answer/definition on the other. Most importantly you need to quiz yourself on each question/key term until you can remember them all correctly.

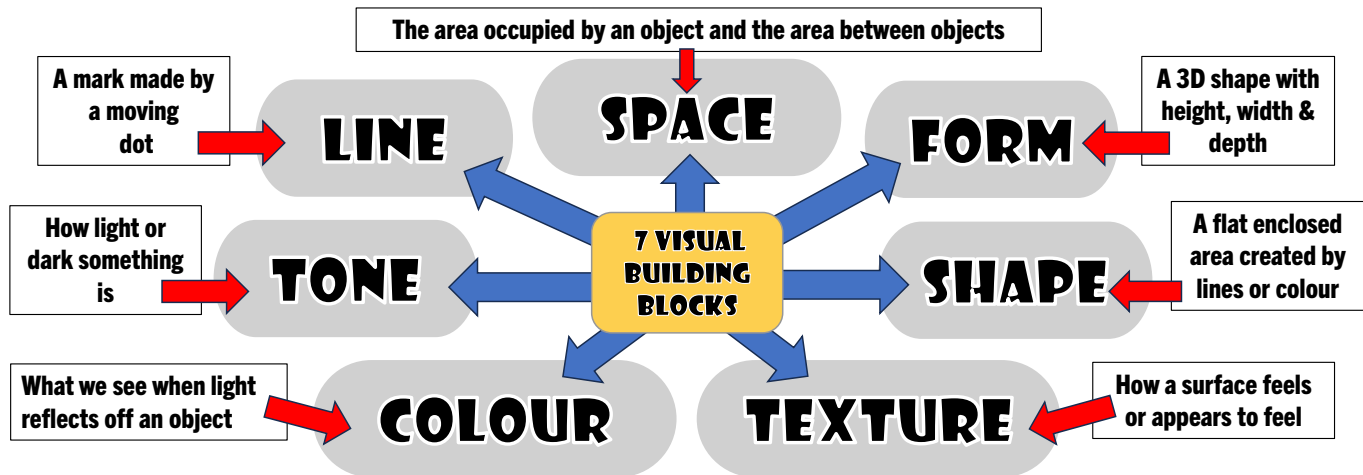
4. **Revision Clock**

Start by drawing a basic clock face. Break your Essential Knowledge Sheet into 12 sub-categories. Make notes from your Essential Knowledge Sheet in each section of the revision clock. Your brain will retain more information if you include images as well as key words and definitions. Read and Revise each section for 5 minutes, turn the clock over and then try to write out as much information as you can from one of the 12 sections on the revision clock. Repeat the process until you are confident in your learning of the essential knowledge on the revision clock.

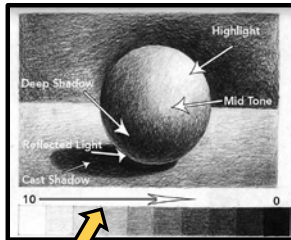
THE ELEMENTS OF ART

YEAR 8 ESSENTIAL KNOWLEDGE SHEET

The **Elements of Art** are the basic visual building blocks used to create 2D & 3D artwork such as drawings, paintings, prints, photos, ceramics and sculptures. They are the visual 'alphabet' of art.

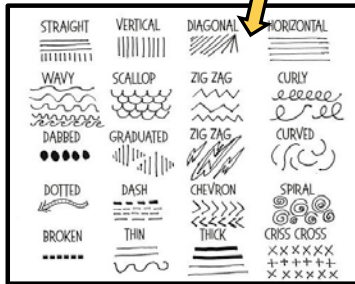


THE ELEMENTS OF ART

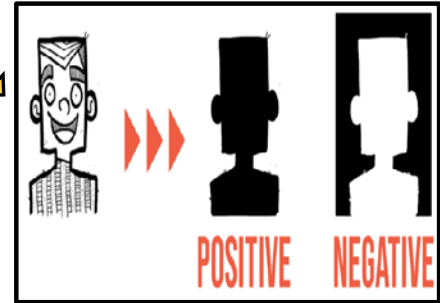


TONE

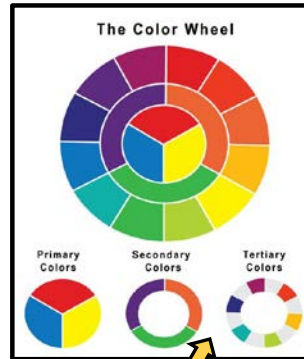
LINE



SPACE



FORM

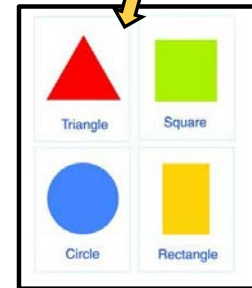


COLOUR

TEXTURE



SHAPE



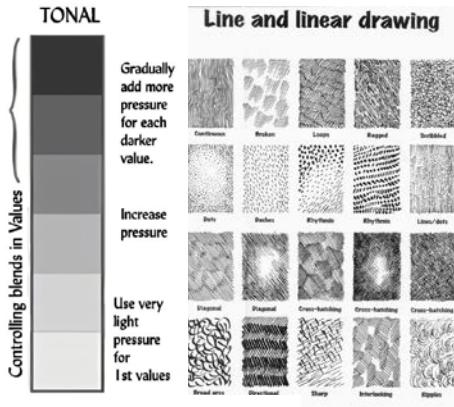
Drawing as Mark-making

MARK-MAKING = the different lines, dots, marks, patterns, and textures we create in an artwork. It can be loose and gestural or controlled and neat. It can apply to any material used on any surface.

CONTOUR LINE = a line that defines the shape or form of an object

ELEMENTS OF ART

Line Tone Form Space
Colour Shape Texture



Different marks can be used to create a variety of **TEXTURES**.

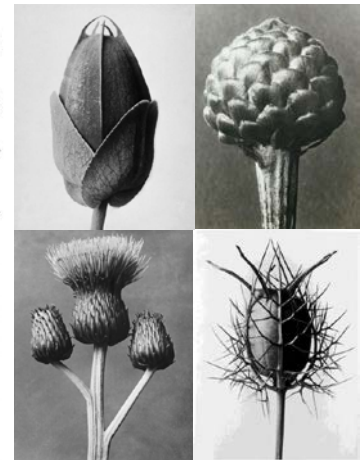
TONAL VALUE can be controlled by an increase (darker) or decrease (lighter) in the density of those marks.



SHADING = a technique using tonal variations of light and dark to create the illusion of depth on a 2D (flat) surface.



Karl Blossfeldt (1865-1932)
Photographer and Sculptor



Selected Photographs

Ceramic Techniques

Hand-building Techniques

Slabbing
Pinch Pots
Coiling
Modelling



Cylindrical Slab Pot

SLIP = liquid mixture of clay and water

MAQUETTE = a small-scale model or rough draft of an unfinished sculpture



Key Words: kiln, firing, roller guides, modelling tools, slip, carve, leather hard, glaze

Modelling in clay

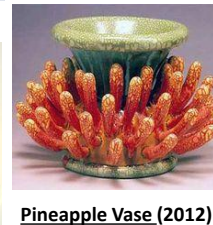


Test Tiles



ELEMENTS OF ART

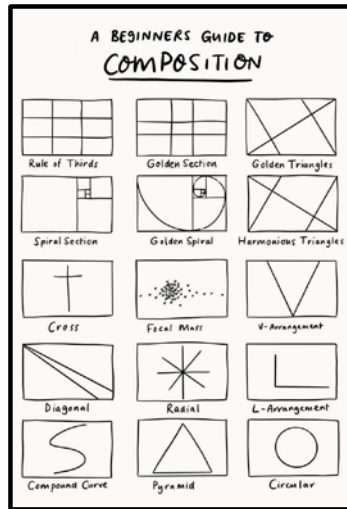
**Line Tone Form Space
Colour Shape Texture**



Kate Malone (Born 1959)
Contemporary Ceramic Artist

Compositional Drawing

COMPOSITION = the arrangement of the visual elements in an artwork. It is how the elements of art and design are organised.



Pop Art (or popular art) is an art movement that emerged in the 1950s and 1960s in America and Britain. It made use of popular imagery such as comics, films, advertising and household objects. The movement was a reaction against the traditions of the accepted art of the time.

Examples of Pop Artists:

Roy Lichtenstein (1923-1997)

Andy Warhol (1928-1987)

Michael Craig-Martin (B1941)



Composition II (1996)

Roy Lichtenstein

FEATURES of POP ART:

Everyday objects, popular culture, bright colours, bold lines, Ben-Day dots, repetition and patterns.

ELEMENTS OF ART

**Line Tone Form Space
Colour Shape Texture**

Marilyn Monroe (1962) Andy Warhol



Intimate Relations:

Sunglasses (2001)

Michael Craig-Martin

Still Life with Goldfish and Golf Ball (1972)
Roy Lichtenstein



Working with Mixed Media

COLLAGE = An artistic composition made by gluing various materials such as pieces of paper, fabric, card, photographs, magazine images etc. on to a background surface.



Mixed media describes artwork in which more than one medium or material has been used such as paint, pencil, pen, paper, pastel, string, thread, fabric etc.

Landscape Art is the representation of natural scenery such as mountains, valleys, trees, rivers, and forests. The genre of landscape painting can be defined as a focus on natural scenery as subject matter and it has occupied artists for centuries!



GENRE = style or category of art

CAROL NELSON is an American artist who uses a range of media in her paintings including acrylic paint and speciality papers.

ELEMENTS OF ART

**Line Tone Form Space
Colour Shape Texture**



Examples of Carol Nelson's work





COMPUTING

8.1 Information Technology

Using specialist tools to create digital resources for a specific purpose

Essential Key Terms:

Client Brief	A list of client requirements
Visualisation Diagram	A layout of a graphic, using boxes and annotation
House Style	Colours and fonts associated with a brand

Additional Terms:

Mind Map	Exploring and generating ideas using text
Branding	Logo or name used to identify a company
Mood Board	Exploring and generating ideas using visuals.
Wireframe	Plans for the layout of web pages, using graphical symbols.
Page Elements	The objects that make up a page of a website or an app

Keyboard Shortcuts:

Copy	Paste	Undo	Save	Snipping Tool
Ctrl + C	Ctrl + V	Ctrl + Z	Ctrl + S	Windows + Up + S



COMPUTING

8.2 E-Safety

Using technology safely and responsibly to avoid harm to yourself or others

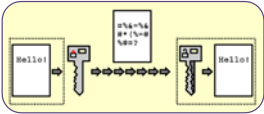
Essential Key Terms:

Malware	Software designed to damage or disrupt digital devices
Artificial Intelligence	A program that learns to improve itself
Encryption	The process of changing information into a secret code



Additional Terms:

Trojan	A program that pretends to be good but when opened, will install malware
Worms	Malware that spreads itself from computer to computer.
Ethical	The moral principles and doing the right thing.
Binary	The language that computers understand, where everything is stored as 1s and 0s.





8.2 E-Safety

Using technology safely and responsibly to avoid harm to yourself or others

How to convert a Binary Number:

To convert a **decimal number** into a **binary number**, you write out the number line, and find all the numbers that add together to get that decimal value. You place a 1 under those numbers, and a 0 under the ones unused.

For example, the number **97** would be... $64 + 32 + 1$! So the binary would be: 01100001

128	64	32	16	8	4	2	1
0	1	1	0	0	0	0	1

Pigpen Cipher:

Each letter is replaced by a symbol. The Key on the right shows which symbols are used for each letter of the alphabet.

E.G the first five letters of the alphabet would appear as:

A	B	C	J	K	L
D	E	F	M	N	O
G	H	I	P	Q	R

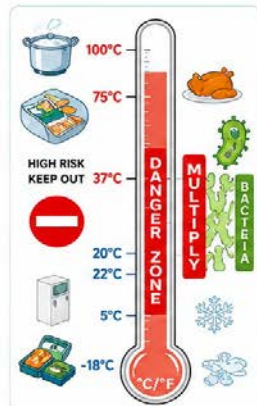
S	W
T	X
U	Y
V	Z

Atbash Cipher:

Each letter in the alphabet is replaced by its 'reversed alphabet' letter, so the letter A becomes the letter Z, the letter B becomes Y

A = Z
B = Y
C = X
D = W
E = V
F = U
G = T
H = S
I = R
J = Q
K = P
L = O
M = N
N = M
O = L
P = K
Q = J
R = I
S = H
T = G
U = F
V = E
W = D
X = C
Y = B
Z = A

FOOD PREPARATION and NUTRITION



Year 8 Essential knowledge Keywords and Definitions

Key Temperatures

100°C	Boiling point
75°C	Core temperature of cooked food*
37°C	Body Temperature
20°C - 22°C	Room Temperature
5°C - 63°C	Danger Zone
1°C - 4°C	Fridge Temperature
0°C	Freezing point
-18°C	Freezer Temperature

WHERE FOOD COMES FROM

	Food miles	The distance a food product travels. 'From field to fork.'
	Provenance	Where your food comes from e.g. grown, raised, reared or caught.
	Food waste	Food that we don't eat. In the UK, households waste 4.5 million tonnes edible food – products that could have been eaten.

FOOD SAFETY

Bacteria	A microorganism that can reproduce rapidly.
Conditions for bacterial growth.	
'Best before' date	Date mark on packaging of lower-risk foods. The date when the food is expected to deteriorate in quality.
Cross-contamination	Transferring harmful bacteria (or other microorganisms) from one thing to another e.g. from raw food to ready-to-eat food or via work surfaces, hands and equipment.
Danger zone	The range of temperatures in which bacteria multiply very quickly. 5°C – 63°C.
High risk food	Foods that are high in protein and moisture, if not stored or cooked correctly can grow harmful microorganisms.
'Use by' date	A date mark on the packaging of food that is a safety warning about when the food is likely to be unsafe to eat e.g. high-risk foods.
Ambient food (Low risk food)	A food that can be safely stored at room temperature. 20°C – 22°C.

FOOD SCIENCE

Raising agent	An ingredient that helps a product rise.
Aeration	Adding air into ingredients.
Coagulation	A liquid turns into a solid e.g. eggs when they are cooked.
Dextrinisation (Flour)	Golden brown colour when baked.
Caramelisation (Sugar)	Gives a golden-brown colour.
Shortens (Lard)	Stops long chains of gluten forming. Gives a crumbly texture.
Gluten	Protein found in wheat which helps to stretch (elasticity).
Shelf Life	Adding moisture to prevent foods deteriorating quickly.
Bind	Holds ingredients together.
Fermentation	Carbon dioxide is released and trapped, causing a rise.

The 4 C's	
Cleaning 	- Ensure all equipment is clean before using. - Use hot water and washing up liquid to break down grease and kill bacteria. - Wash hands with hot water and soap for at least 20 seconds. - Use an antibacterial spray on surfaces.
Cooking 	- Food should be cooked until it reaches 75°C - Use a temperature probe to check the temperature - Once food has been cooked it should be kept above 63°C and eaten within 90 minutes - You can only reheat foods once.
Chilling 	- Foods should be stored in a fridge between 1°C - 4°C - The freezer should have a temperature of -18°C - Foods must be completely cool before placing in the fridge or freezer, otherwise the temperature will rise into the danger zone and bacteria may start developing. (Foods should be cooled for 90 minutes.) - Organise the fridge and raw meat should be covered on the bottom shelf.
Cross Contamination 	Transferring harmful bacteria (or other microorganisms) from one thing to another e.g. from raw food to ready-to-eat food or via work surfaces, hands and equipment. Ways to prevent cross-contamination: - Use separate equipment - Wash hands before cooking, after handling different foods especially raw meats - Store raw meat covered on the bottom shelf of the fridge - Use different chopping boards and knives for foods RAW MEAT SALADS & FRUITS RAW FISH VEGETABLES COOKED MEATS DAIRY PRODUCTS

👨🍳 Cooking Techniques	
Kneading	Stretching dough so bread will rise and have a well risen structure.
Ferment	When yeast has warmth, time, moisture and food it gives off carbon dioxide, which causes bread to rise.
Dry frying	Cooking food in a pan without added fat or oil.
Temperature control	Being in control of the temperature when cooking.
Temperature probe	A piece of equipment used to measure the temperature of a food.
Stir frying	Meat and vegetables are cooked quickly in a small amount of hot oil. Food is kept moving during cooking.
Creaming	Beating together yellow fat and caster sugar to add air (aerate).
Rubbing in	Incorporating fat into flour when making pastry.

🥣 Functions of ingredients	
Flour	- Main ingredient, forms the structure of bread and pastry. - Self-raising flour – contains a raising agent to help cakes rise.
Sugar	- Sweetens foods. - When creamed with fat, helps to hold air in mixture.
Margarine	- Adds colour, flavour and shelf life. - When creamed with sugar helps to hold air in a foam. - Produces a short crumb when rubbed in to pastry with lard.
Eggs	Trap air when whisked to create a foam.
Lard	Shortens pastry to keep a crumbly texture.
Yeast	Raising agent used in bread.
Water	Binds dry ingredients together.
Salt	Adds flavour. In bread, strengthens gluten and controls yeast action.

Nutrition		
Nutrient	Food Example	Function in the Body
 Carbohydrate	Sugar – found naturally in fruit and vegetables. Starch – potatoes, bread, rice, pasta	Energy. 
 Protein	Animal – meat, fish, poultry, eggs, dairy products. Plant – peas, lentils, nuts, seeds	Growth from childhood to adulthood. Repair muscles and tissue after injury or illness. Secondary source of energy. 
 Alternative Protein	A form of protein other than meat e.g. Tofu or TVP, Mycoprotein (Quorn).	
 Saturated fats	Animal – meat, butter, lard, suet, dairy products.	Energy. Provide fat soluble vitamins (A and D). 
 Unsaturated fat	Plant – sunflower, rapeseed and olive oils. Almonds, peanuts, avocado, seeds and oily fish.	Forms an insulating layer. Layers of fat also protects our bones and organs. 
 Dietary fibre	Helps to keep your digestive system working properly and keeps food moving through it.	Vegetables – peas, beans, broccoli, carrots, potatoes (skins). Fruit – raspberries, prunes, bananas, apples. Wholemeal/ brown flour, bread, pasta and rice. Pulses – lentils, beans, seeds and nuts 
 Vitamin C	Protects the body from infection, allergies and heals wounds.	Citrus fruits, tomatoes, strawberries, green veg and potatoes. 

Diet Related Health Problems	
 Obesity	When the body has too much fat.
 Cardiovascular Disease	Any disease associated with the heart.
 Coronary Heart Disease	Arteries are narrowed because they're filled with fatty deposits.
 Type 2 Diabetes	Blood glucose levels stay too high. Can be caused by being obese.
 Tooth Decay	Caused by having too much sugary food and drink and not cleaning your teeth and gums regularly.

Reducing Saturated Fat and Sugar in the Diet

Reducing saturated fat

- Use oil instead of butter
- Drain fat from minced beef
- Cut visible fat of meat e.g. bacon
- Buy reduced fat dairy products.
- Read labels and check the traffic light labelling.

Reducing sugar

- Use sweeteners instead of sugar
- Buy reduced sugar foods e.g. sauces, canned foods.
- Reduce sugar when baking
- Read labels and check the traffic light labelling.

UNDERSTANDING THE TRAFFIC LIGHT SYSTEM

	Sugars	Fat	Saturates	Salt
HIGH per 100g	Over 15g	Over 20g	Over 5g	Over 1.5g
MEDIUM per 100g	Between 5g and 15g	Between 3g and 20g	Between 1.5g and 5g	Between 0.3g and 1.5g
LOW per 100g	5g or below	3g or below	1.5g or below	0.3g or below

Source: Food Standards Agency

Year 8 Graphic Products Mug Project Essential Knowledge Sheet.

Key Term	Definition
Vanishing Point	Point(s) at which all lines in a perspective drawing appear to meet.
Horizon	The line on which the vanishing point(s) sit.
Logging	The harvesting of trees for paper production.
Deforestation	The removal of large areas of forest.
Pulp	Wood fibre reduced chemically or mechanically to pulp used in the manufacture of paper.
Biodiversity	The variety of living species in a habitat. Deforestation can affect biodiversity negatively by removing habitats.
Pollution	Contaminants, this could be diesel fumes from machinery/ vehicles, bleaches used in paper production or noise.
Community	A group of people living in an area. This may be people located close to a large paper factory.
Bleach	Bleaches are added to pulp during paper making. It turns the pulp from a light brown colour to a creamy/ white colour.
Typeface	A set of fonts with shared characteristics.
Serif	A typeface with 'feet', or 'flicks' at the end of the letters stems. SERIF
Sans Serif	This typeface has no feet or flicks (just like the letters you are reading now!) SANS SERIF
Script	This typeface will have a handwritten look- think ' <i>Coca Cola</i> '.
Decorative	This typeface will be designed to have a theme incorporated into it. Decorative
Wordmark Logo	A logo consisting of only lettering.
Symbolic Logo	A logo consisting of only images.
Sublimation	The process of transferring a printed image onto an item. The process uses heat to evaporate ink which condenses when it hits the surface of the object to be printed onto.
Heat Transfer Paper	Special paper used in the sublimation process. Dye particles sit on the top surface of the paper, the water from the de is absorbed into the second layer of the paper.
Polymer Coating	A polymer coating (plastic) that absorbs the evaporated ink during the sublimation process.



KEYWORD	DEFINITION	ADVANTAGES	USES
Hardwood	Wood from slow-growing deciduous trees	Very strong and durable	Furniture, flooring, tool handles
Softwood	Wood from fast-growing coniferous trees	Lightweight, easy to work	Construction, joinery
Pine	Common softwood. Light in colour, light in weight and easy to work.	Cheap and lightweight	Furniture, interior joinery
Safety Goggles	Protective eyewear	Prevents eye injury	Used when cutting or sanding
Apron	Protective clothing	Keeps clothing clean and safe	Used in workshop
Vice	Holds work firmly on bench	Keeps hands free	Holding wood when cutting or drilling
Tenon Saw	Fine-toothed hand saw for straight cuts	Accurate and clean	Cutting joints in wood
Coping Saw	Narrow-blade saw for curves	Cuts intricate shapes	Model making, design work
G-Clamp	Adjustable metal clamp	Strong, holds work securely	Clamping pieces for gluing
Bench Hook	Wooden guide for sawing	Keeps work steady	Cutting wood safely
Try Square	Measuring and marking 90° angles	Accurate marking	Woodworking joints
Steel Rule	Straight metal ruler	Precise measurements	Marking out lines on materials
Marking Gauge	Tool with a pin for parallel lines	Ensures accuracy	Marking across timber
Sandpaper	Abrasive paper for smoothing	Creates smooth finish	Finishing wood before painting
File	Metal tool with teeth for shaping	Removes rough edges	Finishing metal or plastic
Pillar Drill	Stationary drilling machine for making holes	Accurate holes quickly	Fitting screws or dowels
Countersink Bit	Drill bit for widening screw holes	Allows screw heads to sit flush	Wood joints and fixings
Hand Plane	Hand tool used to smooth and level wood	Produces flat, even surfaces	Smoothing and shaping wood
Sustainability	Responsible use of materials to protect the environment	Reduces waste, supports eco-friendly production	Selecting renewable woods, recycling materials
Bradawl	Pointed hand tool for making small starter holes	Prevents wood splitting, easy to use	Starting screw or nail holes
Sanding Sealer	Clear liquid applied before finishing	Seals surface, improves finish	Prepares wood before waxing or varnishing
Wax	Polished finish applied to wood	Enhances shine, protects surface	Final finish for furniture and woodwork

Design & Technology Keywords

Softwood



- Wood from fast-growing coniferous trees
- Lightweight, easy to work
- Construction, joinery

Pine



- Common softwood
- Cheap and lightweight
- Furniture, interior joinery

Apron



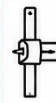
- Protective clothing
- Keeps clothing clean and safe
- Used in workshop

G-clamp



- Adjustable metal clamp
- Strong, holds work securely
- Clamping pieces for gluing

Marking gauge



- Tool with a pin for parallel lines
- Ensures accuracy
- Marking across timber

Countersink bit



- Drill bit for widening screw holes
- Allows screw heads to sit flush
- Wood joints and fixings

Hardwood



- Wood from slow-growing deciduous trees
- Very strong and durable
- Furniture, flooring, tool handles

Plywood



- Thin wood veneers glued in layers at 90°
- Strong, resists warping
- Shelving, construction projects

Safety goggles



- Protective eyewear
- Prevents eye injury
- Used when cutting or sanding

Coping saw



- Narrow-blade saw for curves
- Cuts intricate shapes
- Model making, design work

Steel rule



- Straight metal ruler
- Precise measurements
- Marking out lines on materials

Drill



- Power or hand tool for making holes
- Accurate holes quickly
- Fitting screws or dowels

MDF



- Fine wood fibres pressed with resin
- Smooth surface, easy to shape
- Furniture carcasses, prototypes

Beech



- Hard, tough hardwood
- Resists dents, smooth finish
- Toys, workbenches

Tenon saw



- Fine-toothed hand saw for straight cuts
- Accurate and clean
- Cutting joints in wood

Try square



- Measuring and marking 90° angles
- Accurate marking
- Woodworking joints

File



- Metal tool with teeth for shaping
- Removes rough edges
- Finishing metal or dastic

Manufactured board



- Man-made wood product bonded with resin
- Uses waste wood, stable, cheap
- Flat-pack furniture, model bases

Oak



- Common hardwood
- Hard-wearing, attractive grain
- Furniture, flooring

Vice



- Holds work firmly on bench
- Keeps hands free
- Holding wood when cutting or drilling

Bench hook



- Wooden guide for sawing
- Keeps work steady
- Cutting wood safely

Sandpaper



- Abrasive paper for smoothing
- Creates smooth finish
- Finishing wood before painting

Sustainability



- Responsible use of materials to protect the environment
- Reduces waste, supports eco-friendly production
- Selecting renewable woods, recycling materials

Bradawl



- Pointed hand tool for making small starter holes
- Prevents wood splitting, easy to use
- Starting screw or nail holes

Sanding sealer



- Clear liquid applied before finishing
- Seals surface, improves finish
- Prepares wood before waxing or varnishing

Wax



- Polished finish applied to wood
- Enhances shine, protects surface
- Final finish for furniture and woodwork



Think responsibly.
Use materials wisely.
Design for a better future.

THE 6 R'S OF SUSTAINABILITY

- 1 REFUSE**
Say NO to things you don't need.
 - Don't take plastic straws or extra bags
 - Avoid free stuff you won't use

➔ *Best choice because it stops waste before it starts.*
- 2 REDUCE**
Use less in the first place.
 - Turn off lights when not needed
 - Buy only what you really need

➔ *Less stuff = less waste.*
- 3 REUSE**
Use things again instead of throwing them away.
 - Refill a water bottle
 - Use jars to store things
 - Pass clothes on to someone else

➔ *Keeps items out of landfill.*
- 4 REPAIR**
Fix broken items instead of replacing them.
 - Sew a torn shirt
 - Fix a bike or phone
 - Glue a broken toy

➔ *Saves money and resources.*
- 5 RECYCLE**
Turn old materials into new products.
 - Paper, plastic, glass, metal
 - Use the correct recycling bin

➔ *Good — but not the first option.*
- 6 RETHINK**
Think before you buy or throw something away.

Do I really need this?
 Can I share it, reuse it, or choose a better option?

➔ *Encourages smarter choices every day.*

Sustainability means using resources in a way that meets our needs today without stopping future generations from meeting theirs.

In simple terms:

➤ **Look after the planet now, so it's still healthy in the future.**

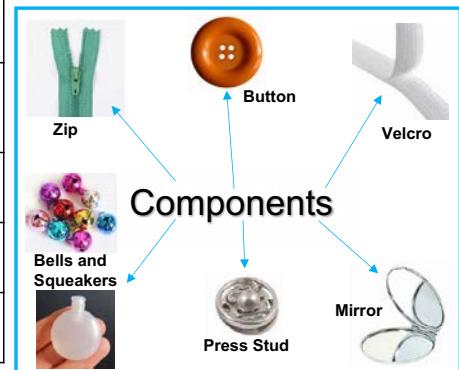
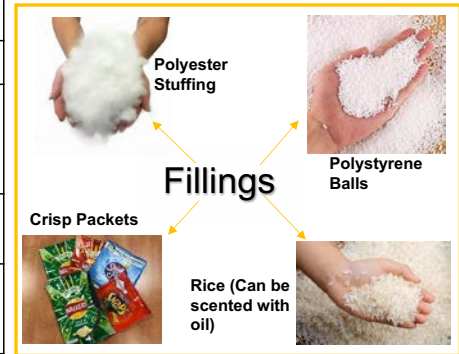
Examples:

- Using renewable energy like wind or solar
- Recycling and reusing materials
- Protecting plants, animals, and natural habitats



Fabric	Advantages	Disadvantages
Plain Weave Cotton 	Breathable, Lightweight, Biodegradable, Easy to care for, Absorbent (good for dyeing)	Takes a long time to dry
Cotton Velvet 	Insulating, Soft, Luxurious sheen.	Difficult to care for, Not very durable.
Polyester (Synthetic) 	Strong, Durable, Drapes Well, Hydrophobic (does not absorb water) so quick drying, Easy to care for, Pleats/shapes can be set with heat-good for adding structure, cheap to purchase as its manmade.	Polyester can melt or misshape with high temperatures. Take care with aftercare.
Cotton Terry Towelling 	Very absorbent due to the loops (takes a long time to dry), Interesting surface texture, Soft	Loops can snag. Takes a long time to dry.
Satin (Synthetic) 	Lustrous shine, Drapes well, Strong, Durable, Pleats/shapes can be set with heat-good for adding structure, Hydrophobic (does not absorb water) so quick drying,	Can snag easier than other weaves so not suitable for everyday wear.
Knitted Wool 	Insulating, Soft, Absorbent Natural elasticity, Lots of texture.	Takes a long time to dry, Heavy when wet, Expensive.
Lace 	Breathable, Absorbent, Lightweight, Easy to clean, Biodegradable, Lots of variations of intricate designs (good to add pattern and texture), Areas of pattern alongside sheer areas.	Delicate to work with. Can snag or pull easily.
Polyester Fleece 	Soft, Insulating, easy to care for, doesn't fray when cut, doesn't stain easily as its hydrophobic	Can pill with abrasion.
Cotton Denim 	Breathable, Biodegradable, Easy to care for, Absorbent (good for dyeing), durable, diagonal twill surface adds pattern and texture.	Expensive, no stretch, heavy when wet, slow drying.
Cotton Corduroy 	Insulating, Soft, Biodegradable, Absorbent (good for dyeing), different cord thicknesses are available.	Medium durability, gets holes with abrasion, takes a long time to dry.

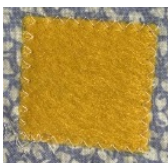
Y8 Design Technology: Textiles Essential Knowledge Organiser



Decorative Technique	Description
 Machine Applique	When you stitch one fabric to another by machine. • Applique is completed on a sewing machine using a zig zag stitch. • Applique adds texture and interest to products, and completing it by machine is quicker and the applique will be more durable. • You can complete both 2D applique and 3D applique (such as ears, legs, a tail etc.) on a sewing machine.
 Hand Applique	When you stitch one fabric to another by hand. • Hand applique can only be used to produce 2D applique. • Stitches should overlap the raw edge for durability, to reduce fraying and for an aesthetically pleasing finish. • Stitches can be a contrasting colour to add decoration. Applique adds texture and interest to a product.
 CAD/CAM Embroidery	CAD/CAM Embroidery is an automated process to produce quick, durable and professional embroidery stitches. • In manufacture it is used for motifs, decorative stitches and elements such as facial features to reduce the risk of choking. • In school we can use it for letters and numbers.
 Hand Embroidery	Producing intricate stitches which add texture and decoration. • Stitches can lie flat or be 3D dependent on the stitch selected. • You will need an embroidery hoop, embroidery needle and embroidery threads to complete it to a high standard. • A variety of patterns and textures can be added to your work using hand embroidery, it also works well combined with decorative embellishment. • The key for a high-quality finish is even length stitches and good stitch tension!
 Decorative Embellishment	Sewing sequins and beads onto fabric adding decoration, pattern and texture. • We do this technique by hand sewing each one individually to build up to a desired pattern. • Decorative embellishment can be time consuming and makes products more difficult to care for due to delicacy.

Y8 Design Technology: Textiles Essential Knowledge Organiser





Machine Applique

- ✓ Stitch=C2
- ✓ Should overlap raw edge
- ✓ Reverse when you start and end for durability

Sewing Machine Skills

Seams

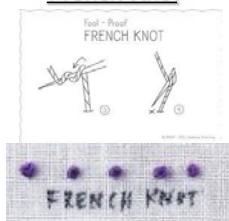
- ✓ Stitch=A2 (straight) C2 (Zig Zag)
- ✓ Straight stitch 1cm from the raw edge
- ✓ Zig zag stitch along the raw edge to prevent fraying
- ✓ Reverse when you start and end for durability



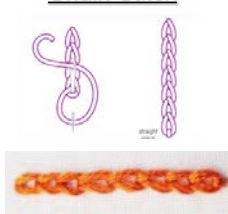
Y8 Design Technology: Textiles Essential Knowledge Organiser

Key Words	Definition
Applique	A French term meaning 'to apply'. Fabric is stitched on top of each other for texture and decoration.
Design Brief	Outlines the requirements of a design project.
Design Specification	Identifies specific factors required to meet the needs of the user in a design project.
Embroidery	Decorating fabric using a needle to stitch threads in decorative patterns.
Computer Aided Design (CAD)	Using Computer software to design products in both 2D and 3D.
Computer Aided Manufacture (CAM)	Machines are programmed with CAD designs to manufacture different elements of a product. (Example, cutting out pattern pieces for a garment, Embroidering a logo on a school uniform)
Fabric	A material made by knitting, weaving or bonding fibres.
Embellishment	Adding sequins, beads, mirrors, buttons, rhine stones or feathers to add texture and aesthetic impact. Embellishments can be sewn or glued dependent on the position and the end use.

French Knot

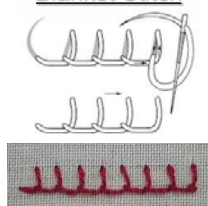


Chain Stitch

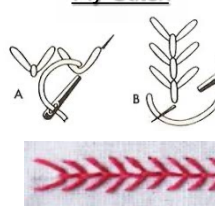


Embroidery Stitches

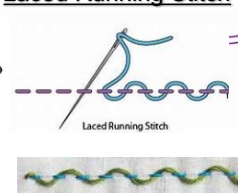
Blanket Stitch



Fly Stitch



Laced Running Stitch



Woven Wheel



DRAMA

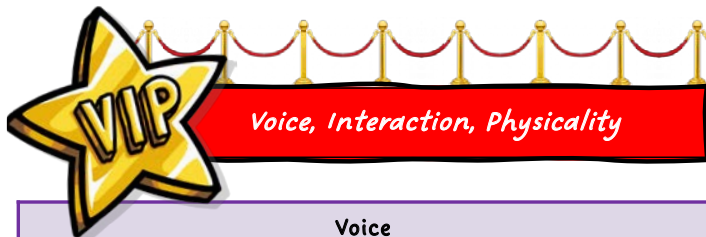
Key Terminology

Half-Term 1: Darkwood

<u>Vocabulary</u>	<u>Definition</u>
Theatre In Education	Theatre in Education (TiE) is a genre of theatre that has a very clear moral or social message for young people.
Teacher In Role	The teacher takes on the role of a character to lead students into an imaginary scene/situation.
Thought-Tracking	A thought-track is when a character steps out of a scene to address the about how they're feeling.
Conscience Corridor	The class forms two lines facing each other. The teacher or a participant walks between the lines as each member of the group speaks their advice.
Hot Seating	A rehearsal technique where a character is questioned by the group about their background, behaviour and motivation.
Multi-role	Multi-role is when an actor plays more than one character onstage.
Poverty	Poverty is not having enough money to meet basic needs including food, clothing and shelter.

Half-Term 2: Macbeth

<u>Vocabulary</u>	<u>Definition</u>
Imagery	Clear and symbolic representation of something
Improvisation	Making something up on the spot
Projecting	Speaking loudly and clearly but without shouting
Devising	Creating a piece from your own ideas
Body as Prop	Using your bodies to represent an object
Symbolism	Representing ideas or thoughts without being literal
Conscience Corridor	A technique that explores a character's innermost thoughts by using a 'corridor' of people to represent their conflicting thoughts
Duologue	A speech / scene that is performed by two actors



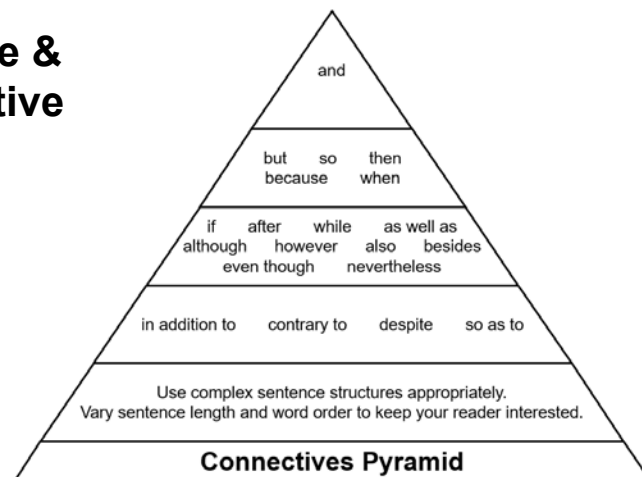
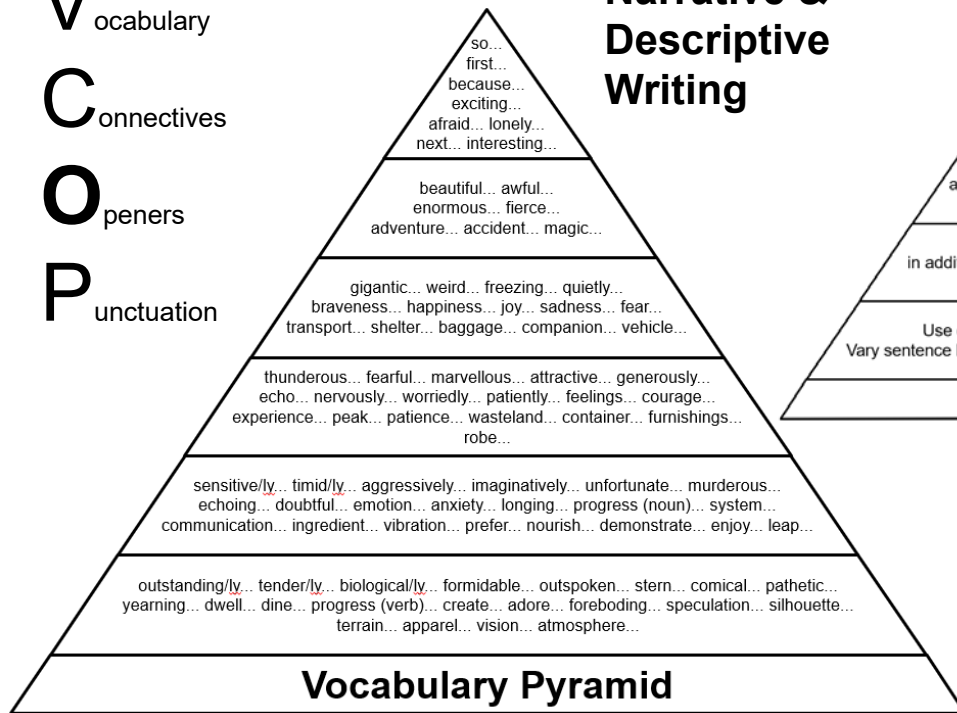
<u>Voice</u>		
	<u>Vocabulary</u>	<u>Definition</u>
PPPTV	Pace	How quickly or slowly you speak
	Pitch	How high or low your voice is
	Pause	Stopping for dramatic effect
	Tone	The emotion you are showing in your voice
	Volume	How loud or quiet your voice is
	Projection	Making sure your voice is loud enough to be heard without shouting
	Accent	A way of pronouncing words which shows where your character is from
	Emphasis	Stressing part of a word/sentence to show how your character feels

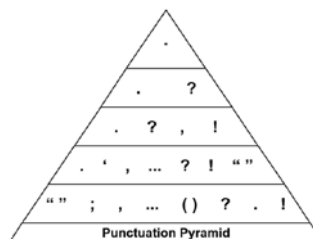
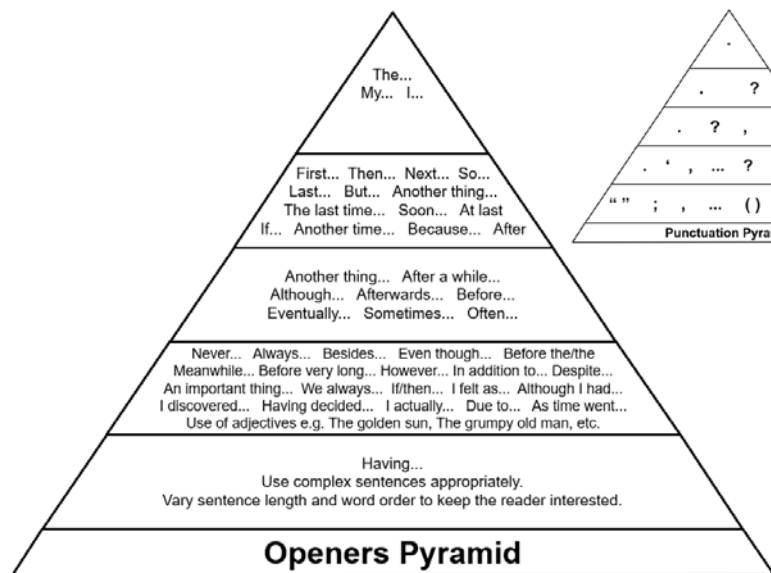
<u>Interaction</u>	
<u>Vocabulary</u>	<u>Definition</u>
Audience Sightlines	What the audience can see from their seats
Corpsing	Laughing unintentionally in a performance
Naturalistic Acting	Performing in a style that is believable – like real life
Non-Naturalistic Acting	Performing in a style that could be full of symbolism, exaggeration, silliness, song and dance – not like real life
Proxemics	Using distance between characters to show their relationship (e.g. close = friends)

<u>Physicality</u>	
<u>Vocabulary</u>	<u>Definition</u>
Facial Expressions	Using your face to show your emotions
Body Language	Using your body to show emotions
Gestures	Using your hands to communicate feelings
Stance	The way your character stands
Gait	The way your character walks
Levels	Using different heights onstage (it could be used to show your character's power)
Body as Prop	Using yours and your group members' bodies to represent an object

Vocabulary
Connectives
Openers
Punctuation

Narrative & Descriptive Writing





Punctuation Essentials		
Full stop .	Ends a sentence	She smiled.
Comma ,	Separates clauses and items	After dinner, we left.
Apostrophe '	Shows possession or contraction	It's Sam's book so don't touch
Question mark ?	Indicates a question is being asked	Where are you?
Exclamation mark !	Used to emphasise something	Watch out!
Colon :	Introduces a list or extra information	He had one goal: to win. I have three pets: a cat, a dog and a parrot.
Semi-colon ;	To link related clauses	It was late; she was tired.
Dash -	Adds interruption or extra information	He stopped – suddenly.
Speech marks "..."	Denotes direct speech	"Hello," she said

Narrative & Descriptive Writing

Descriptive Techniques	
Alliteration	When words start with the same letter/sound
Cyclical structure	A story that ends where it started
Foreshadowing	Clues for later events
Imagery	Words that create pictures in your mind
Metaphor	A comparison that says something is something else.
Pathetic fallacy	Using the weather to create a mood
Personification	Giving human features to something not human
Simile	A comparison using like or as
Zoomorphism	Giving animal qualities/characteristics to things that aren't animals

Crafting Sentences

Suggestion	Example	Your turn...
A short sentence of three verbs	<u>Watching, listening, waiting.</u>	
Starting with an adverb	<u>Ominously</u> , the alarm filled the empty city...	
Starting with a simile	<u>Like a concrete wall</u> , the noxious cloud of gas surrounded them.	
Start with a preposition	<u>Above</u> the trench, the explosion was very sudden.	
Include sensory language	<u>The deafening screech of car wheels and police sirens filled the air.</u>	
Use a fronted adverbial (where, when, how)	Before darkness arrived... As the candle dimmed... At midnight...	
Include dynamic verbs.	Paul's right hand <u>shot</u> out and down, <u>gripping</u> the deadly thing. It <u>hummed</u> and <u>twisted</u> in his hand, but his muscles were <u>locked</u> on it in desperation.	

Key Vocabulary

Novel	A story with a hidden meaning
Theme	A main idea or message in a text
Protagonist	The main character in the story
Antagonist	The enemy of the protagonist
Social class	A person's position in society determined by wealth
Patriarch	A male leader
Patriarchy	A male dominated society
Capitalism	A type of society motivated by making money and profit

Reading**Literary Devices**

Alliteration	When words start with the same letter/sound	She sells seashells along the seashore.
Hyperbole	An over-exaggeration	My suitcase weighs a ton!
Juxtaposition	Placing opposite ideas nearby	Spring remained a distant memory as winter soon crept in
Metaphor	A comparison that says something is something else.	The classroom was an encyclopaedia.
Onomatopoeia	Words that sound like the noise they make	Buzz, hiss, crack
Oxymoron	Two opposite ideas/words placed right next to each other	The deafening silence A happy war
Personification	Giving human features to something not human	The stars winked at me.
Simile	A comparison using like or as	She was as happy as a lark.

PEACH	
Point	The writer presents...as/as an exploration of...
Evidence	This is shown through the quote, '...'
Analysis (meaning, method, connotations, effects)	The use of [method] implies...because the word '...' means...which has connotations of... Furthermore, it could also suggest that...
Context	At the time the poem/text is set,... The writer may have wanted to show...through his/her exploration of [theme] because...
Have You Checked Your Work?	Make sure you leave time to check your work, correcting where needed.

Step by Step Guide to Analysis	
1. Pick a quote	Choose a short, relevant word or phrase from the text.
2. Identify a Technique	Say what it is (e.g. metaphor, simile, adjective, repetition)
3. Zoom in on a word	Focus on one interesting word
4. Explain what it suggests	Say what the word (or phrase) makes you think or feel.
5. Link to meaning	Explain what it shows about a character, theme, idea
6. Add deeper thought	Consider why the writer did this or how it affects the reader.

Analytical Language		
Simple	Developed	Deeper Thinking
Describes	Conveys	Challenges
Explains	Demonstrates	Contrasts with
Highlights	Emphasise	Criticises
Presents	Explores	Exemplifies
Reveals	Illustrates	Reinforces
Shows	Implies	Symbolises
Suggests	Represents	Questions

Y8 French Term 1

French Phonics

French	Pronunciation
ou	oo
oi	wa
en-in-on-un	Nasal sounds the "n" is silent
o-au-eau	o
eu	errr
é	it
er-et-ez at the end of a word	
è-ê-ai	bet
h	is silent
u	
gn	nya
ch	sh
ill	y
qu	k
c	s
tion-sion-ssion	see on

KS3 Tier 3 Vocabulary: Year 8

Key word	Definition
Conjugate	Putting a verb into all its forms e.g. <i>I go, you go, he/she goes, we go, they go</i>
Tense	When an action is happening – <i>past, present or future</i>
Infinitive	The full form of a verb before you change it to talk about someone e.g. <i>to go = ir/aller, to visit = visiter/visiter</i>
Cognate	A word that looks or sounds similar to English.
Intensifier	Adding emphasis by using <i>very, a little bit, quite or too much</i> .

Les jours de la semaine

(The days of the week)

lundi	Monday
mardi	Tuesday
mercredi	Wednesday
jeudi	Thursday
vendredi	Friday
samedi	Saturday
dimanche	Sunday

Quelle est la date?



Les mois de l'année

(The months of the year)

janvier	January
février	February
mars	March
avril	April
mai	May
juin	June
juillet	July
août	August
septembre	September
octobre	October
novembre	November
décembre	December

Les nombres 0-31

(Numbers 0-31)

0	zéro	8	huit	16	seize	24	vingt-quatre
1	un	9	neuf	17	dix-sept	25	vingt-cinq
2	deux	10	dix	18	dix-huit	26	vingt-six
3	trois	11	onze	19	dix-neuf	27	vingt-sept
4	quatre	12	douze	20	vingt	28	vingt-huit
5	cinq	13	treize	21	vingt et un	29	vingt-neuf
6	six	14	quatorze	22	vingt-deux	30	trente
7	sept	15	quinze	23	vingt-trois	31	trente et un

1.1 Qu'est-ce qu'il y a dans ta ville?

SB1.1 Qu'est-ce qu'il y a dans ta ville? (What is there in your town?)							
J'habite dans (I live in)	une grande ville (a big town)	et	dans ma ville il y a (In my town there is)	un café (a cafe)	un château (a castle)		
	une petite ville (a small town)		dans mon village il y a (In my village there is)	un centre commercial (a shopping centre)	un musée (a museum)		
	un grand village (a big village)			un centre de loisirs (a leisure centre)	un marché (a market)		
	un petit village (a small village)			une piscine (a swimming pool)	une mosquée (a mosque)		
Dans ma ville (In my town)	il n'y a pas de (there aren't any)	café (cafés)	j'adore (I love)	habiter ici (living here)		assez (quite)	amusant (fun)
Dans mon village (In my village)		magasins (shops)	j'aime (I like)	ma ville (my town)	parce que c'est (because it's)	très (very)	ennuyeux (boring)
			je n'aime pas (I don't like)	mon village (my village)	car c'est (because it's)	trop (too)	génial (great)
			je déteste (I hate)			un peu (a bit)	intéressant (interesting)
							nul (rubbish)

1.2 Où vas-tu le weekend?

SB1.2 Où vas-tu le weekend? (Where do you go at the weekend?)							
Le weekend (At the weekend)	je vais (I go)	au (to the)	bowling (bowling alley)	avec (with)	mon copain (my friend (m))		mon frère (my brother)
			cinéma (cinema)		mon père (my dad)		
			parc (park)		ma copine (my friend (f))		ma sœur (my sister)
			stade (stadium)		ma famille (my family)		ma mère (my mum)
Le vendredi soir (On Friday evening)	je ne vais pas (I don't go)				mes copains/copines (my friends)		
Le samedi matin (On Saturday morning)	on va (we go)	à la (to the)	piscine (pool)		mes parents (my parents)		
			plage (beach)				
Le dimanche après-midi (On Sunday afternoon)	j'aime aller (I like going)	à l' (to the)	église (church)	parce que (because)	c'est génial (it's great)		
					c'est cool (it's cool)		
					c'est sympa (it's nice)		
					c'est ennuyeux (it's boring)		
		aux (to the)	magasins (shops)	car (because)	j'aime ça (I like that)		

1.3 Qu'est-ce que tu vas faire?

SB1.3	Qu'est-ce que tu vas faire à Paris? (What are you going to do?)					
S'il fait beau (If it's nice)	je vais (I'm going)	je ne vais pas (I'm not going)	aller au musée (du Louvre) (to go to the (Louvre) museum)		avec ma famille (with my family)	
S'il fait chaud (If it's hot)			aller aux Catacombes (to go to the Catacombs)			
S'il fait froid (If it's cold)			faire une balade en bateau-mouche (to go on a boat trip)			
S'il pleut (If it's raining)			faire un pique-nique (to go on a picnic)			
S'il y a du vent (If it's windy)	mon frère va (my brother is going)		faire les magasins (to go shopping)			
			visiter la tour Eiffel (to visit the Eiffel tower)			
			visiter la cathédrale (de Notre Dame) (to visit the (Notre Dame) cathedral)			
D'abord (First of all)	ma sœur va (my sister is going)		prendre des photos (to take photos)			
Puis (Next/then)	mes parents vont (my parents are going)		acheter des souvenirs (to buy souvenirs)			
Ensuite (Next/then)			manger un sandwich / une glace (to eat a sandwich / an ice cream)		et (and)	
Après (After/words)			rester à l'hôtel (to stay at the hotel)		mais (but)	
			admirer la Joconde (to admire the Mona Lisa)			

An important irregular verb (present tense)

Aller - to go			
je vais	I go	nous allons	we go
tu vas	you go	vous allez	you go
il/elle/on va	s/he goes we go	ils/elles vont	they go

1.4 Elle est comment, ta région?

SB1.4 Elle est comment, ta région? (What is your region like?)						
Dans ma région (In my region)	il y a des (there is/are some) il y a beaucoup de (there are lots of) il n'y a pas de (there aren't any)	bâtiments (buildings)	et (and)	on peut (you can)	aller (go)	au cinéma (to the cinema) à la plage (to the beach)
		champs (fields)			faire (do)	du canoë-kayak (canoeing) du ski (skiing) des randonnées (walks) les magasins (shopping)
		forêts (forests)	où (where)	les touristes peuvent (tourists can)	manger (eat)	du fast-food (fast food) des crêpes (pancakes)
		lacs (lakes) montagnes (mountains) plages (beaches) voitures (cars) lieux d'intérêt (places of interest)				
					visiter (visit)	le marché (the market) des grottes (some caves) des monuments historiques (historic monuments)

1.5 Pour aller au stade?

SB1.5 Pour aller au stade? (How do I get to the stadium?)						
Pour aller (How do I get to)	au bureau d'information? (the information office)		Prenez (Take)	la première (the first)	rue (road)	à droite (on/to the right)
	au stade? (the stadium)			la deuxième (the second)		
	à la banque? (the bank)			la troisième (the third)		
	à la bibliothèque? (the library)					
	à l'hôtel? (the hotel)					
	aux toilettes? (the toilets)					à gauche (on/to the left)
Où est (Where is)	le stade? (the stadium)		Tournez (Turn)			
Où se trouve (Where is)	la gare? (the station)					
Où sont (Where are)	les toilettes? (the toilets)		Allez tout droit (Go straight on)			
C'est proche/C'est près? (Is it near?)	C'est (It's)	devant (in front of)	la boulangerie (the bakery)		et (and)	l'arrêt d'autobus (the bus stop)
C'est loin? (Is it far?)		dernière (behind)	l'hôpital (the hospital)			
		entre (between)				

1.6 Ma maison idéale

SB1.6 Comment serait ta maison idéale? (What would your ideal house be like?)			
Ma maison idéale <i>My ideal house</i>	serait <i>would be</i>	située <i>situated</i>	
Je voudrais habiter dans <i>I would like to live in</i>	un joli <i>a pretty</i>	appartement <i>apartment</i>	à Paris <i>in Paris</i>
	un vieux <i>an old</i>	château <i>castle</i>	au bord de la mer <i>at the seaside</i>
Dans ma maison de rêve <i>In my dream house</i>	une jolie <i>a pretty</i>	maison <i>house</i>	à la campagne <i>in the countryside</i>
	une vieille <i>an old</i>	ferme <i>farm</i>	à la montagne <i>in the mountains</i>
	il y aurait <i>there would be</i>	un salon <i>a living room</i>	énorme <i>enormous</i>
		un jardin <i>a garden</i>	pratique <i>practical</i>
		une cuisine <i>a kitchen</i>	moderne <i>modern</i>
		une salle à manger <i>a dining room</i>	confortable <i>comfortable</i>
		une piscine <i>a swimming pool</i>	
		cinq chambres <i>five bedrooms</i>	énormes <i>enormous</i>
		six salles de bains <i>six bathrooms</i>	



Weather, climate, UK weather and tropical rainforests:

What is weather and climate?	
Weather	The day to day conditions of the atmosphere 
Climate	The average weather conditions taken over a number of years. 
The UK's climate	Temperate climate. This means it is <i>mild</i> all year with a chance of rain any time of year.
What factors affect the UK's weather?	
Wind direction 	The prevailing (main) wind direction in the UK comes from the Southwest, from the Atlantic Ocean.
Types of rainfall 	Frontal rainfall: Warm and cold air meet but don't mix. Warm air rises, cools, and makes rain. Relief rainfall: Air moves up mountains, cools as it rises, and makes rain.
Altitude 	There is a 1° drop in temperature for every 100m rise in height.
Latitude 	Places further from the equator are colder because of the curvature of the earth.
Distance from the sea 	The sea changes temperature slowly, so places near the coast have cooler summers and warmer winters.

Tropical Rainforests:	
Tropical Rainforest:	A hot, rainy forest near the equator with tall trees.
Location:	These are found along the Equator, between the Tropic of Capricorn and Tropic of Cancer
Temperature:	On average 27°C all year round because the rainforest is near the equator, where the sun's rays are strong and direct all year.
Rainfall:	2000mm of rainfall per year because warm air rises, cools down, and makes clouds that drop rain.
Habitat:	A place where an animal lives. 
Deforestation:	Large scale removal of trees 
Vegetation:	All the plants and trees that grow in an area. 

The Structure of a Tropical Rainforest



Emergent Layer	In this layer are the tops of the tallest trees 60 m high
Canopy Layer	This is the densest layer of vegetation. Trees are 20-40m tall. It is home to insects birds and some mammals
Understory	This layer contains ferns above 10m high
Forest Floor	It is dark, only 2% of sunlight reaches here. There is very little vegetation

How is vegetation adapted to tropical climates?

Buttress roots		They have wide roots so they can grow tall and it stops them falling over.
Drip tip leaves		They are funnel shaped so water channels away from the leaf therefore it doesn't snap and die.
Pitcher plants		They have sweet tasting nectar, so they attract insects and small mammals. It has water in the bottom therefore the insects drown and then are digested.

How are animals adapted to the tropical rainforest?

Tree frog		Disc like suction pads so they can stick onto the waxy leaves Green in colour so it camouflages into the canopy.
Flying lemur		Flaps of skin attached to arms and legs so it enables them to glide from branch to branch. They are nocturnal therefore it allows greater protection from predators.
Capuchin Monkey		Long tails which are 50cm so they can balance and climb with ease. They are omnivores that live in the canopy along with 50% of other species so they have a plentiful food supply.

Deforestation:

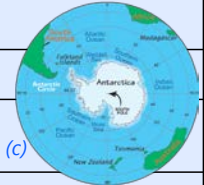
Causes of deforestation:	
Logging 	The cutting down of trees for timber.
Hydro-Electric Power (HEP) 	The generation of electricity from moving water, often using large dams and reservoirs.
Mineral Mining 	The extraction (removal) of valuable minerals and natural resources, such as gold and bauxite (used to make aluminium).
Road Building 	The construction of roads for transport, e.g. the Trans-Amazonian Highway.
Agriculture 	Farming crops such as soya beans and palm oil.
Cattle Ranching 	The farming of cattle for beef production.
Tribal Homelands 	Indigenous groups (People who have lived in a place for a very long time before others arrived) such as the Kayapo live in the Amazon Rainforest and depend on it for their way of life.

Impacts of deforestation:	
Positive:	Negative:
Agriculture employs (provides jobs for) 15% of people in Brazil.	Clearing land reduces habitat, leading to species endangerment and extinction.
\$1.5 billion is earned from beef sales and \$1 billion from leather.	Toxic chemicals like cyanide used in mining pollute the environment and harm people, plants, and animals.
Gold is a very expensive mineral, which can earn miners between \$20-\$30 per gram!	Soil quality is poor, so land must often be cleared again every 2 years (often using slash-and-burn).

Sustainability:	
What is sustainability? 	Something that is good for the environment, good for local people and long lasting
What is sustainable tourism?	1. Uses local materials and services 2. Small-scale developments 3. Designed to fit the local environment 4. Supports conservation 5. Employs (provides jobs for) local people

Fragile Earth:

What is a fragile environment?	
Fragile Environment:	A natural environment easily damaged by people or climate change <i>For example; Antarctica, The Sahel, The Outback, The Daintree Tropical Rainforest, The Great Barrier Reef</i>
Antarctica:	
Location:	It is in the southern hemisphere.
Climate:	A cold desert receiving less than 250mm of precipitation per year. -49 °C average temperature.
Food Chain:	Shows direct simple links between producers and consumers <i>e.g. Phytoplankton (producer) → Krill (consumer) → Fish (c) → Penguin (c) → Leopard seal (c) → Orca whale (c)</i>
Stakeholders:	Person or group having a vested interest in something <i>e.g. Environmentalists, scientists, tourism companies, mining companies</i>
The Sahel, Africa:	
Location:	It stretches across Africa west to east, covering countries like Mali, Burkina Faso and Chad
Physical Features:	1. The region has abundant wildlife including gazelle, cheetah, African wild dogs, lions & giraffe 2. It is hot and can reach 40 °C 3. Low, seasonal rainfall about 100-600mm per year.
Human features:	1. People practice subsistence farming (<i>people only grow what they need to live</i>) 2. Many people raise cattle, goats and camels



Endangered species in Africa:

Endangered Species:	Animals or plants at high risk of extinction (a species that no longer exists anywhere) in the future. <i>For example; Mountain gorilla, Bonobo Monkey, Black Rhino, African Elephant.</i>
Mountain Gorilla:	Human reason for endangerment: Poaching (illegally hunting or taking wild animals) and habitat destruction
Bonobo Monkey:	Human reason for endangerment: Hunting for bushmeat and deforestation for agriculture
Black Rhino:	Physical reason for endangerment: Slow reproduction rate; only one calf every 2-3 years Human reason for endangerment: Poaching for their horns
African Elephant:	Physical reason for endangerment: Long pregnancy (22 months) which limits rapid population recovery Human reason for endangerment: Poaching for ivory tusks and habitat loss from farming / settlements

The Outback, Australia:

Location:	Central part of Australia.	
Climate:	Average temperature = 35°C. Average precipitation (rainfall) = 150mm per year	
Flora (plants)	Stuart's Desert Pea, Kangaroo Paws	
Fauna (animals)	Kangaroo, Saltwater Crocodile & Dingo	

The Daintree Tropical Rainforest, Australia:

Location:	North-east of Australia.	
Climate:	Average temperature = 26°C. Average precipitation (rainfall) = 308mm per year	
Flora (plants)	Many of the plants are poisonous like the idiot fruit	
Fauna (animals)	Estuarine Crocodile and musk rat	

The Great Barrier Reef, Australia:

Location:	Off the north-east coast of Australia.	
Climate:	Average temperature = 24-33°C in summer and 14-26°C in the winter. Average precipitation (rainfall) = 2010mm per year	
Flora (plants)	Seaweeds and grasses	
Fauna (animals)	1400 species of coral, Dolphins and sharks	

Australia Fragile Environment key terms:

Climate:	 The average weather conditions over a number of years
Flora:	The plants that grow naturally in a particular place.
Fauna:	The animals that live naturally in a particular place.
Adaptation:	A feature or behaviour that helps a plant or animal survive.
Invasive:	A plant or animal that is not native (<i>naturally found in a certain place</i>) and spreads quickly, harming the environment. <i>For example: Cane toad</i>
Ferral:	A domesticated animal (<i>tamed by humans for farming, work, or pets</i>) that now lives wild in the environment. <i>For example: Wild camels</i>
Pests:	An animal or plant that causes problems for people, crops, or the environment. <i>For example: Crown-of-thorns starfish</i>

Solutions to Problem Species in Australia

Species	Problem	Solutions
Crown-of-Thorns Starfish	Eats too much coral	Divers inject with a toxic solution
Wild Camel	Overgrazing (<i>when animals eat too much grass and damage</i>) the land and environmental damage	1. Culling (<i>human killing to reduce numbers</i>) for meat 2. Export the camels to the Middle East 3. Camel farming for milk
Cane Toad	Poisonous; harms native animals	Locals capture and kill them to control numbers

Year Eight History: Topic One—Power

	Key dates and events you should know.
1066	William of Normandy conquered England
1215	The Magna Carta was signed by King John. This was the first document to set out the rights and freedoms of English people.
1295	The first parliament met. Under the rule of Henry III. This was made up of the king, the Lords (barons and bishops) and the Commons (knights and rich men).
1381	The Peasants' Revolt: took place A large group of peasants, led by Wat Tyler, set off to London to meet the king and demand for higher wages and lower taxes.
1534	Henry VIII replaced the Pope as the head of the Church of England. This was known as the Reformation. He did this because he wanted to take power away from the Pope and so that he could grant himself a divorce.
1558-1603	Elizabeth I's reign. It becomes known as 'the golden age'.
1588	The attempted invasion by Spain which led to the Battle of the Armada. The English, led by Sir Francis Drake, win and the Spanish return home after losing many ships in a storm,
1642-6	The English Civil War took place. Parliament challenged the king, Charles I, for power and control of the country.
1649	The execution of the king, Charles I.
1653-59	The rule of Oliver Cromwell; Lord protector of England. He was a strict Puritan.
1660	The monarchy was restored, Charles II becomes king. This is known as the 'Restoration'. Cromwell's laws were replaced, pubs and theatres reopen.
1600's	Case study: Power over women was shown through witch trials. Women who were not behaving as society thought they should were accused of being witches and were put on trial.

Key vocabulary	
Power	The ability to control others
Parliament	the place where politicians (MPs) 'speak' and make laws
Monarch	the king or queen of a country
House of Lords	a group of titled people who check new laws to make sure they will work.
House of Commons	the place where MPs meet to make laws.
Bill	a law before it is passed
Election	where somebody is voted for to represent the people in their area.
Autocrat	a leader who makes all decisions
Government	the political party chosen to run the country after an election
Democracy	a system of government where people's views are represented through having the right to vote.
Political	the way a country is run and organised, including how laws are made
Social	anything to do with the daily life of people, how they live, what they believe in and how they communicate
Economic	anything to do with money, this includes trade and business.
Reformation	the change to the church from Catholic to Protestant
Dissolution	closure of the monasteries and Catholic churches
Armada	An armed fleet of ships
Divine Right of Kings	the belief God had chosen the king
Civil War	a fight between people in the same country
Republic	a country without a monarch
Restoration	the return of a monarch to run the country

Key questions :	
How did the Magna Carta change the power of the Monarch?	It restricted the power of the monarch, forcing them to meet with their Barons and listen to their advice. It also stated that trials should be more fairly run and the king could not raise taxes for the people without the agreement of the barons.
What was the impact of the 'reformation'?	The reformation was the period of time when Henry VIII began to restrict the power of the Catholic church, and its leader the Pope, in England. He closed down catholic monasteries and replaced priests with people from his own new 'Church of England' He made the monarch the head of the church so that he could change religious rules such as the ability to get divorced.
Why was Elizabeth I a successful monarch?	Elizabeth chose not to get married so that she did not have to share her power with a man, or link England to another country such as Spain. She was also more tolerant of religion, allowing Protestants and Catholics to continue to practice their religion. Through her choice of commanders she showed great leadership during the Battle of the Armada. England grew prosperous whilst she was queen.
What were the causes and consequences of the English Civil War?	The war began between King Charles and Parliament after disagreements about money, religion and power. Parliament wanted the king to discuss issues with them before making new laws and taxes, but the king believed that he had 'divine right' to rule. Parliament was led by Protestants who were worried that the king was being influenced by Catholic ideas. When they challenged him he tried to rule without them. This led to a war breaking out. Parliament won the war and in 1649 executed King Charles. This led to England becoming a republic led by Oliver Cromwell, until Charles III was restored to the throne in 1660.

**John: 1166-1216**

Became king after the death of his brother Richard the Lionheart.
He was forced to sign the Magna Carta by his barons in 1215 which took some of his power away.

**Henry VIII: 1509-1547**

Became king after the death of his father Henry VII.
Reformed the English church as he split it away from the Catholic church in Rome, forming the Church of England. Married 6 times to try and have a male heir.

**Elizabeth I: 1558—1603**

She was the second child of Henry VII and the daughter of Anne Boleyn. Whilst she was monarch the time was seen as a 'golden age' with England seen as a powerful nation.

**Charles I : 1625-1649**

Charles disagreed with his Parliament about money, religion and who should make decisions. He tried to close Parliament down. A war broke out between his supporters and Parliament—known as the English Civil War. It ended in Charles' trial and execution.

**Oliver Cromwell: 1653-1660**

Lord Protector of England after the execution of Charles I
He was a Puritan who changed the way the country was run. After his death the monarchy was restored.

Skill spot: How to Explain why.....

In assessments you will be asked to explain why/how something happened. In this unit you will need to explain the impact of different migrants. You can find ideas to help you revise for this in the table above.

- You will need to write 3 paragraphs.
- In each paragraph you need to be able to explain, with some detail why/how something happened.
- You could write sentences which start like these:

"One reason for..... is....."

"Another effect was....."

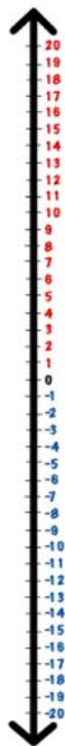
"This happened because....."

"A key impact was....."

"This was important because...."

"This led to...."

Number Line:



Maths Working Wall

Negative Numbers

Adding/Subtracting Negatives

e.g. $4 + -7 =$
 $4 - 7 = -3$

e.g. $5 - +9 =$
 $5 - 9 = -4$

e.g. $3 - -6 =$
 $3 + 6 = 9$

Multiplying Negatives

$+$ $\times$ $+$ $=$ $+$

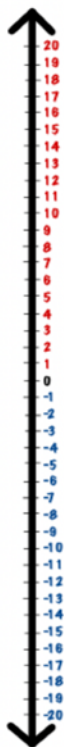
$+$ $\times$ $-$ $=$ $-$

$-$ $\times$ $+$ $=$ $-$

$-$ $\times$ $-$ $=$ $+$

X	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
3	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
4	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
5	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
6	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90
7	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105
8	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
9	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135
10	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
11	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165
12	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
13	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195
14	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210
15	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225

Number Line:



Maths Working Wall

Tier 3 Essential Vocabulary

	Example
Integer	
A whole number	10
Prime number	2, 3, 5, ...
A number with only 2 factors, one and itself	
Variable	x
A letter used to represent an unknown number	
Term	3x
A multiple of a variable	
Expression	$3x + 2y$
Terms added or subtracted together	
Expand	$2(3x-4)=6x-8$
To multiply out the bracket	
Factorise	$6x-8=2(3x-4)$
To put an expression back into brackets	
Solve	$3x-5=10$ $3x=15$ $x=5$
To find the value of a variable in an equation	

Radius

The line going from the centre of a circle to the outside

Diameter

The line going through the centre of a circle from side to side

Polygon

A 2D shape

Quadrilateral

A 4-sided shape

Converting Measurements:

Length

$1\text{cm} = 10\text{mm}$

$1\text{m} = 100\text{cm}$

$1\text{km} = 1000\text{m}$

Mass

$1\text{kg} = 1000\text{g}$

Capacity

$1\text{ litre} = 1000\text{ml}$

Factors & Multiples:

Factors of 18 : 1, 2, 3, 6, 9, 18

Multiples of 18 : 18, 36, 54, 72, 90, 108...

Factors are numbers that multiply to get that number

Multiples are numbers in that times table

Mean

The total of all the numbers divided by how many

Median

The middle value in an ordered list

Mode

The most common piece of data

Range

The difference between the largest and smallest value

Probability

The chance, written as a fraction, decimal or percentage

Maths Working Wall

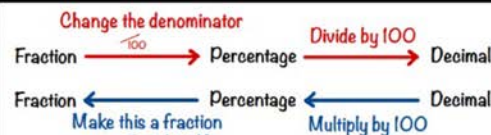
100%									
50%					50%				
25%		25%		25%		25%		25%	
20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
10%	10%	10%	10%	10%	10%	10%	10%	10%	10%

Percentages:

To find...

50% divide by 2
 10% divide by 10
 25% divide by 4
 1% divide by 100

FDP:



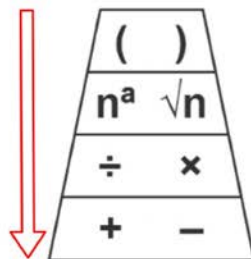
Types of number:

Cubes	1	8	27	64	125
	216	343	512	729	1000
Squares	1	4	9	16	25
	36	49	64	81	100

Prime Numbers

2
3
5
7
11
13
17
19

Order of operations



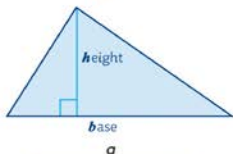
Fraction	Percentage	Decimal
$\frac{1}{2}$	50%	0.5
$\frac{1}{4}$	25%	0.25
$\frac{1}{5}$	20%	0.20
$\frac{1}{10}$	10%	0.10
$\frac{1}{100}$	1%	0.01
$\frac{3}{4}$	75%	0.75

Maths Working Wall

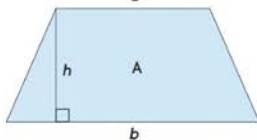
Shape



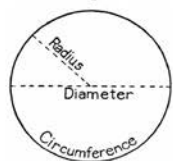
$$\text{Area} = \text{base} \times \text{height}$$



$$\text{Area} = \frac{\text{base} \times \text{height}}{2}$$



$$\text{Area} = \frac{a + b}{2} \times h$$



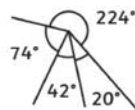
$$\text{Circumference} = \pi \times d$$

$$\text{Area} = \pi \times r^2$$

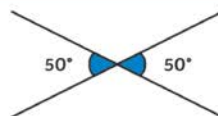
Angles



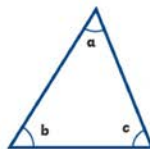
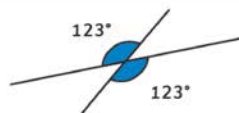
Angles on a straight line always total 180° .



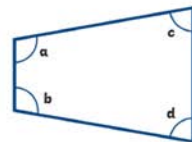
Angles around a point always total 360° .



Opposite angles that share a vertex are equal.



$$a + b + c = 180^\circ$$



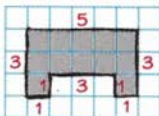
$$a + b + c + d = 360^\circ$$

Retrieval Core Maths Skills



Skill 1— Perimeter

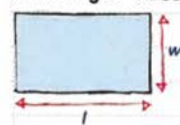
Perimeter is the distance around the edge of a shape. You can work out the perimeter of a shape by adding up the lengths of the sides.



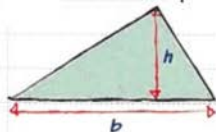
The perimeter of the shape is:
 $5 + 3 + 1 + 1 + 3 + 1 + 1 + 3 = 18 \text{ cm}$

Skill 2— Area of Shapes

Rectangle Area, $A = lw$

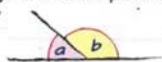


Triangle Area, $A = \frac{1}{2}bh$

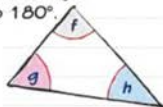


Skill 3— Angles

Angles on a straight line add up to 180° .
 $a + b = 180^\circ$



Angles in a triangle add up to 180° .



Skill 4— Fraction Arithmetic

Adding or subtracting

1. Write the fractions as equivalent fractions with the same denominator.
2. Add or subtract the numerators.
3. Do not change the denominator.

$$\frac{2}{5} + \frac{3}{10} = \frac{4}{10} + \frac{3}{10} = \frac{7}{10}$$

Skill 5— Fraction of an amount

Fractions of Amounts

To find a fraction of a number:

- 1 Divide the number by the denominator.
- 2 Multiply by the numerator.

Multiply then divide if it's easier.

$$\frac{7}{12} \text{ of } 240 = (240 \div 12) \times 7$$

$$20 \times 7 = 140$$

To write one number as a fraction of another:

- 1 Write the 1st number over the 2nd.
- 2 Cancel down.

$$\frac{210}{75} = \frac{210 \div 3}{75 \div 3} = \frac{70}{25}$$

$$\frac{70}{25} = \frac{70 \div 5}{25 \div 5} = \frac{14}{5}$$



Retrieval Core Maths Skills

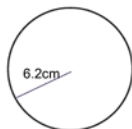
Skill 1— Area of triangles



Make sure the base and height are perpendicular (at right angles). Ignore the 13cm.

$$\text{Area} = \frac{5 \times 12}{2} = 30\text{cm}^2$$

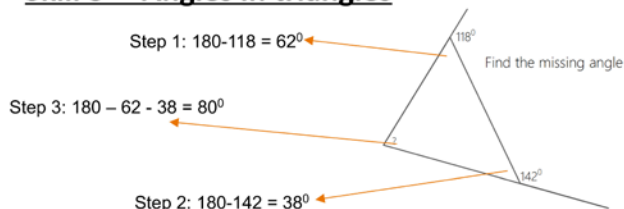
Skill 2— Circumference of circle



$$\text{diameter} = 6.2 \times 2 = 12.4\text{cm}$$

$$C = \pi \times 12.4 = 39.0\text{cm (1.d.p)}$$

Skill 3— Angles in triangles



Skill 4— HCF/LCM

Find the HCF and LCM of 12 and 28

$\frac{12}{1 \times 12}$	$\frac{28}{1 \times 28}$	28, 58, 84, 112, 140
2×6	2×14	
3×4	4×7	12, 24, 36, 48, 60, 72, 84

Skill 5— Standard Form

$$1 \leq a < 10$$

$$a \times 10^n$$

$$8 \times 10^6 = 8,000,000$$

$$5 \times 10^{-3} = 0.005$$

$$903,000 = 9.03 \times 10^5$$

$$0.00047 = 4.7 \times 10^{-4}$$

Multiply 8 by 10 six times

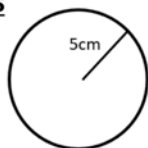
Divide 5 by 10 three times

Identify the number between 1 and 10.
How many times do you need to multiply or divide?

Retrieval Core Maths Skills



Skill 1— Area of Circles

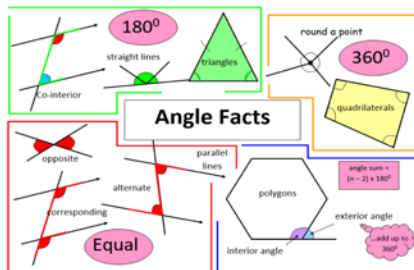


Radius = 5cm
Diameter = 10cm

$$\text{Area} = \pi r^2$$

$$\begin{aligned}\text{Area} &= \pi \times 5^2 \\ &= 75\pi \\ &= 236 \text{ cm}^2 \text{ (3.s.f.)}\end{aligned}$$

Skill 2— Angle Facts



Skill 3— Working with Standard Form

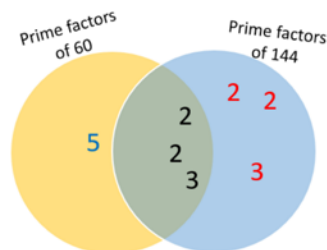
Standard form is a number in the form $a \times 10^n$

Where $1 \leq a < 10$

Example

$$\begin{aligned}304,000 &= 3.04 \times 10^5 \\ 0.0000891 &= 8.91 \times 10^{-5}\end{aligned}$$

Skill 4— HCF/LCM using Venn Diagrams



Highest Common Factor = $2 \times 2 \times 3 = 12$

Lowest Common Multiple = $2 \times 2 \times 2 \times 3 \times 5 = 720$

$$2 \times 3 \times 3 \times 5 = 720$$

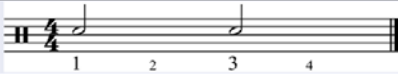
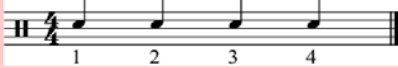
Skill 5— Recurring decimals

Write the recurring decimal $0.4\dot{5}$

Multiply by 100 as there are 2 digits recurring. If there were 1, you would multiply by 10, 3 multiply by 100

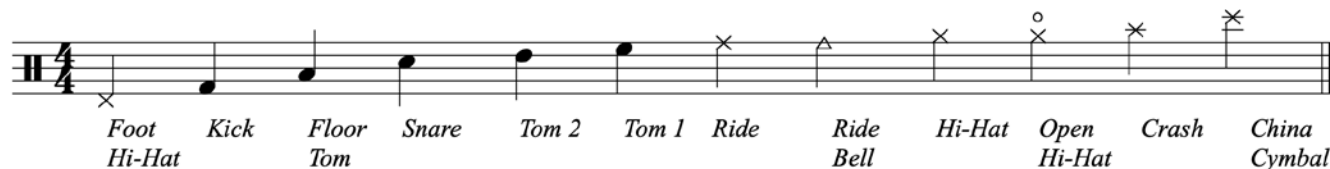
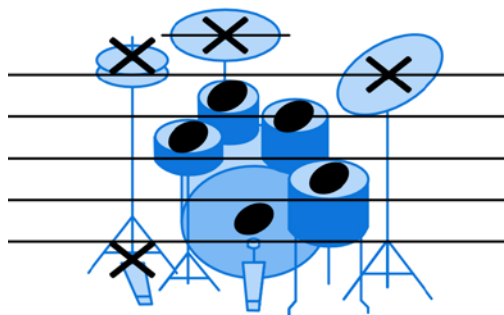
$$\begin{aligned}\times 100 \quad x &= 0.45454545 \dots \times 100 \\ 100x &= 45.454545 \dots \\ -x &= 45 \\ \hline 99x &= 45 \\ \div 99 \quad x &= \frac{45}{99} \\ \text{simplify} \quad x &= \frac{5}{11} \quad \text{simplify}\end{aligned}$$

RHYTHM

Note	Note Value	Rests	Beats	Example in a 4 Beat Bar
Semibreve			4 beats	
Minim			2 beats	
Crotchet			1 beat	
Quaver	 ()		$\frac{1}{2}$ beat	
Semiquaver	 ()		$\frac{1}{4}$ beat	

⚡ Basic Drum Notation ⚡

There are several symbols musicians should know when starting to read drum notation:



PIANO

Middle C

Remember!
To find a **D** note, think of a '**D**og in a **k**ennel'.

The **two black keys together** are the '**k**ennel', with the **D**og inside it!

Remember!
To find **G** and **A**, think of '**G**ary and **A**нна' living in a house (three black keys).

Symbol	Name	Value	How To Count
	Semibreve	4	Counting Whole Notes Hold the note for four beats. Crest: 1 2 3 4
	Minim	2	1 2 3 4 1 2 3 4
	Crotchet	1	1 2 3 4 1 2 3 4
	Quaver	1/2	Counting Eighth Notes 1 2 3 4 5 6 7 8 128 eighth notes for half a beat
	Semiquaver	1/4	1 e a 2 e a 3 e a 4 e a

Try tapping out some of these rhythms while you count:

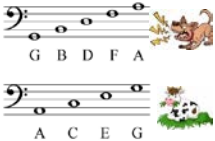
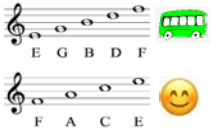
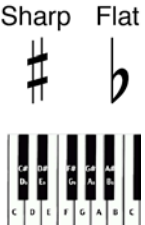
8th Notes Example 1



1 2 and 3 4 1 and 2 and 3 and 4 1 and 2 3 and 4



1 e and a 2 e and a 3 e and a 4 e and a

Pitch	Visual Representation	Features	Description
Low Pitch		Bass, Cello, Tuba, Trombone use this clef	This is the bass clef, sometimes called the F clef.
Low Pitch Notes		There is an easy way to remember the lines and spaces. Great Big Dogs Frighten Auntie All Cows Eat Grass	The bass clef is used to notate low pitch instruments.
High Pitch		Violin, Clarinet, Right hand piano	This is the treble clef, sometimes called the G clef.
High Pitch Notes		There is an easy way to remember the lines and spaces. Every Green Bus Drives Fast F A C E	The treble clef is used to notate higher pitch instruments.
Accidentals		We have 7 natural notes ABCDEFG Plus 5 sharps and flats (each black note on the piano has a flat and sharp name) C#/Db - D#/Eb - F#/Gb - G#/Ab - A#/Bb	Sharp means you play the very next note up in pitch Flat means you play the very next note down in pitch

Benefits of Physical Activity and Warm-Ups

Benefits of Exercise	
Physical activity and exercise are important for everyone and has many benefits which can be split into three different categories	
Physical	Physical benefits refer to the well-being of the body and the proper functioning of the body's systems
Mental	Mental benefits refer to the well-being of your feelings, thoughts and emotions
Social	Social benefits refer to how well people interact with others and form healthy relationships

Reasons why we Warm Up	
Before every PE lesson you will be asked to take part in a warm-up. The reasons for doing so are outlined below	
To increase heart rate	Increasing the heart rate helps to increase blood flow to the muscles, ensuring that they receive more oxygen and nutrients, which are important for energy production during exercise.
To increase body temperature	A warm-up gradually raises the body's temperature, which helps to prepare the muscles for more intense activity. Warmer muscles are more flexible, contract more efficiently, and are less prone to injury.
To prevent injury	During a warm up both dynamic and stretches will increase the flexibility of the muscles which will make them less likely to strain or tear
Practice Skills	Warm-ups often incorporate sport-specific drills and activities. This not only prepares the body but also helps to refine and practice key skills and techniques relevant to the activity.

Benefits of Exercise		
	Short Term	Long Term
Physical	- Increased heart rate – Improved circulation - Increased flexibility – - Immediate calorie burn - Boosted energy levels	- Reduced resting heart and blood pressure - Helps sustain a healthy weight - Improved muscle mass and bone density - Reduced risk of heart disease and strokes
Mental	- Mood enhancement – Serotonin - Stress Relief - Improved alertness and concentration levels - Improved sleep patterns	- Enhanced mental health – can reduce symptoms of depression and anxiety - Improved self esteem - Improved stress management – coping mechanisms-
Social	- Increased social interaction - Teamwork and co-operation - Motivation and support	- Expanded social connections – make new friends - Improved social skills – communication - Sense of community and belonging

What should a warm-up consist of?	
During your PE lessons you may be asked to lead a warm-up. To do this effectively you will need to know what your warm-up should include	
Pulse-Raiser	Exercise and movements designed to gradually increase the heart rate. E.g. jogging on the spot, side steps, star jumps
Dynamic Stretches	A type of stretch that involves movement. E.g. leg swings, arm circles and walking lunges
Static Stretches	A type of stretch where the muscle is stretch and then held in the same position, there is no movement. E.g. Touch your toes, cross-arm body stretch
Skill familiarisation	Sport-specific drills designed to half practice key skills and techniques for the activity. E.g. possession based 3v1 for football

Badminton – Y8

<u>Rules and Regulations</u>	
Scoring System	Winning a Game: The first player or team to reach 21 points wins the game. However, you need to win by at least 2 points. So, if the score is tied at 20-20, the game continues until one side has a 2-point lead
Serving Rules	When the server wins a rally, they score a point and continue to serve. If the opponent wins the rally, they score a point and gain the serve.
Net Violation	A net violation in badminton happens when a player breaks the rules involving the net. Examples include • Touch the net • Lean over the net • Hold the net

<u>Tactics and Strategies</u>	
During your badminton lessons you will be asked to perform a variety of tactics to explore the different ways of winning a point	
Moving your opponent around the court	Use can use the different types of shot you will learn in badminton to help move your opponent around the court. Clear Shot – Move opponent to the back of the court to create space at the front of the court Drop Shot – Move your opponent to the front of the court to exploit space at the back of the court
Identify and Target your opponent's weakness	When you are playing against an opponent you will quickly learn their weaknesses. For example, if someone struggles to play a backhand shot it would increase your chance of winning a point if your targeted that area.

<u>Badminton Tier 3 Vocabulary</u>	
<u>Vocabulary</u>	<u>Definition</u>
Backhand	A shot hit with the back of the hand leading, often used for shots on the non-dominant side.
Baseline	The back boundary line of the court.
Clear	A high, deep shot that sends the shuttlecock to the back of the opponent's court.
Deception	Techniques used to disguise the true intention of a shot and trick the opponent.
Doubles	A game format with two players on each side of the court.
Drop Shot	A soft shot that just clears the net and falls quickly into the opponent's front court.
Fault	A violation of the rules, such as hitting the shuttlecock out of bounds or into the net.
Forehand	A shot hit with the front of the hand leading, similar to throwing a ball.
Let	A situation where the point is replayed due to an interference or accidental occurrence.
Net shot	A shot played close to the net, often used to set up a winning point.
Racket	The equipment used by players to hit the shuttlecock.
Rally	A sequence of shots back and forth between players until the point is won.
Serve	The shot that starts the rally, hit from behind the service line.
Service Line	The line that players must stay behind when serving.
Singles	A game format with one player on each side of the court.

Football – Y8

Rules and Regulations	
Handball	When a player other than the keeper handles the ball, or the keeper does outside of the area. Results in a free kick or a penalty depending on where this happens
Duration	A full game of football lasts 90 minutes, there are two 45-minute halves. Sometimes in certain games two 15 minutes halves of extra time can be played
Obstruction	A player steps into the path of an opposition player to block them or slow them down

Tactics and Strategies	
During your football lessons you will be asked to perform a variety of tactics to explore the principles of attack v defence	
Tactic	Strategies for Success
Maintain Possession	Attack – Create Space, Communicate, Move the ball quickly and accurately Défense – Pressing, closing down and denying space
Why is this tactic / strategy important?	
Attack – The team that can control possession can dictate the game and create more opportunities to the score goals. Defending – Pressing can apply pressure to the team in possession and force mistakes to help regain possession	

Football Tier 3 Vocabulary	
Vocabulary	Definition
Attack	The action or strategy of moving the ball forward and trying to score goals against the opposition.
Control	The ability to receive and maintain possession of the ball using various parts of the body, typically the feet.
Defend	The act of preventing the opposition from scoring, which includes tactics like marking, tackling, and blocking.
Evasion	The skill of moving around or past opponents to avoid being tackled and maintain control of the ball.
First Touch	The initial contact a player makes with the ball when receiving a pass, crucial for controlling and directing the ball effectively.
Jockeying	A defensive technique where a defender positions themselves between the ball and the goal, moving laterally to delay or block the attacker's progress without committing to a tackle
Marking	The defensive strategy of staying close to an opposing player to prevent them from receiving, controlling, or passing the ball effectively.
Possession	The state of having control of the ball. A team is said to be in possession when they have control of the ball and are passing it among their players
Press / Pressing	A tactic where players apply pressure on the opposition when they have the ball, aiming to force mistakes and win back possession quickly.
Referee	The official who enforces the rules of the game, makes decisions regarding fouls, free kicks, penalties, and other stoppages in play.
Set Piece	A situation where the ball is put back into play with a standardized restart, such as a free kick, corner kick, or throw-in.

Gymnastics – Y8

<u>Balances</u>	
Headstand	A balance that requires a person to support their body in a vertical position using their hands.
Tension	The tightness in muscles needed to hold a position or balance without moving.
Extension	Stretching your body parts, like arms and legs, as far as they can go while keeping them straight.
Match	When two gymnasts perform the same balance at the same time.
Mirror	When two gymnasts perform the same movement or balance but on opposite sides, like a reflection in a mirror.
<u>Shapes and Jumps</u>	
Straight	A position where the body is completely straight, with legs together and arms by the sides or overhead.
Tuck	A position where the knees are pulled to the chest and the body is rounded.
Star	A position where the arms and legs are spread out wide to the sides, making the shape of a star
Pike	A position where the legs are straight and together, and the body bends at the waist.
Straddle	A position where the legs are spread wide apart to the sides while the body is straight or slightly bent.

<u>Gymnastics Tier 3 Vocabulary</u>	
<u>Vocabulary</u>	<u>Definition</u>
Aesthetically Pleasing	Movements, balances, or routines that look graceful, beautiful, and well-executed.
Cannon	A sequence of movement where gymnasts perform the same move one after another, like a wave.
Unison	When two or more gymnasts perform the same movements at the same time.
Trampette	A small square trampoline used in gymnastics.
Tariff	The difficulty score given to a gymnastics routine based on the complexity of the moves.
Vaulting	Vaulting is an exercise in gymnastics in which the gymnast leaps over a piece of by placing his or her hands on top and landing on their feet on the other side
Transition	A smooth move that takes a gymnast from one skill to another
Apparatus	Equipment used in gymnastics, like bars, rings, and beams..
Counter-balance	A balance move where two gymnasts use each other's weight to stay balanced.
Counter-Tension	A move where two gymnasts create tension by pulling away from each other to stay balanced.
Flexibility	The ability to stretch and bend easily. / The range of movement around a joint

Netball – Y8



Netball Positions

In a standard game of netball, a team has 7 players on the court at one time. They take up the following positions

Goal-Keeper (GK)	Allowed in defensive goal third and shooting circle
Goal Defence (GD)	Allowed in the defensive and centre thirds and the shooting circle
Wing Defence (WD)	Allowed in defensive and centre thirds but not the shooting circle
Centre (C)	Allowed in all thirds, but not in either shooting circle
Wing Attack (WA)	Allowed in the attacking and centre third, but not the shooting circle
Goal Attack (GA)	Allowed in the attacking and centre thirds and the shooting circle
Goal Shooter (GS)	Allowed in the attacking third and shooting circle

Netball Tier 3 Vocabulary

<u>Vocabulary</u>	<u>Definition</u>
Interception:	When a player catches or takes the ball that was meant for an opponent.
Marking	The action of staying close to an opponent to try to prevent them from getting the ball.
Obstruction:	A foul called when a player defends too closely to another player who has the ball. You must stay at least three feet away.
Pivot	A movement where you keep one foot on the ground while you turn your body to look for a teammate to pass to

Rules and Regulations

Held ball	Players must pass or shoot the ball within three seconds of catching it, or the opposing team is awarded a free pass.
Contact	Physical contact that impedes an opponent's play, like pushing or hitting, is not allowed. A penalty pass is awarded to the opposing team for contact.
Footwork	Players must keep their landing foot grounded until passing or shooting. Moving the landing foot prematurely results in a free pass to the opposition.
Shooting Circle	The semi-circular area around the goal post where only the Goal Shooter and Goal Attack can shoot. Other players cannot enter this area.
Positional Play	Players must stay within their designated areas on the court. Only specific positions can enter certain areas, like the shooting circle or centre third.
Centre pass	The game starts or restarts with a pass from the centre circle. The Centre player must pass the ball to a teammate in the centre third.

Rugby Union – Y8

<u>Rules and Regulations</u>	
Passing and Running	Players can run with the ball, but they can only pass it backwards or sideways. No forward passes are allowed.
Offside	Players must stay behind the ball when it's played or they risk being offside. Being offside can result in a penalty.
Knock-On	A "knock on" happens when a player accidentally knocks the ball forward with their hand or arm.
Duration of the Game	80 minutes – Two 40-minute halves
Number of players	15 players per team
Scoring Points	Try = 5pts Conversion = 2pts Penalty Kick = 3pts Drop Goal = 3pts

<u>Tactics and Strategies</u>	
During your Rugby lessons you will be asked to perform a variety of tactics to explore the principles of attack v defence	
Tactic	Strategies for Success
Attack v Defence 2v1 & 3v2	Run Straight – Draw the defender towards the ball, making it harder for the defender to cover all attacking players
	Use Deception – Ball carrier should consider using a dummy pass or quick changes of direction to deceive the defender
	Support the Ball carrier - The support player should run a supportive line that is close enough to receive a pass but far enough to avoid the defender. Constant communication between the two attacking players is crucial. The support player should call for the ball and indicate their position

<u>Rugby Tier 3 Vocabulary</u>	
Vocabulary	Definition
Accelerate	In rugby, to accelerate means to increase speed quickly. Players often accelerate to break through the defence, chase down a ball, or support a teammate.
Conversion	A conversion is a kick at goal that a team attempts after scoring a try. It's worth 2 points if the ball goes through the goalposts.
Deception	The use of feints, body language, and misleading movements to confuse or mislead defenders.
Depth	Depth refers to the distance between players in a line. In attack, maintaining depth helps players run onto the ball at speed, making it harder for the defence to stop them.
Dummy Pass	A fake pass intended to deceive defenders into thinking the ball is being passed, when in fact the ball carrier retains possession.
Evasion	The skill of avoiding tackles by using quick changes of direction, speed, and agility.
Knock-On	A knock-on occurs when a player accidentally hits the ball forward with their hand or arm. This results in a scrum awarded to the opposing team.
Offside	A player is offside if they are in front of a teammate who last played the ball. Being offside can result in a penalty.
Power	Power in rugby refers to the strength and force a player uses during play, such as in tackles, scrums, and when running with the ball.
Support the Ball Carrier	Positioning yourself close to the ball carrier to provide an immediate passing option, helping maintain the attack and continuity of play.
Tackle	A tackle is when a player brings the ball-carrier to the ground. The tackled player must release the ball immediately.
Try	A try is scored when a player grounds the ball in the opponent's try zone. It is worth 5 points.
Width	Width in rugby refers to using the full width of the field in attack, spreading the defence thin and creating space to move the ball wide.

Faith in Society

Lesson 1: Faith in Society

	Atheist	A person who does not believe in any gods. They think there is no evidence that any God exists.
	Agnostic	A person who believes that not possible to know for sure if God exists or not . They may be unsure or think the answer is unknown.
	Theist	A person who believes in at least one god. This includes many different religions.
	Census	An official survey issued every 10 years that collects information about people in a country, such as their age, religion and where they live. It helps the government understand the population.

Agnostic
a person who neither believes nor disbelieves in a higher power



vs

Atheist
a person who does not believe in any god or higher power



Lesson 2: Faith in the Community

	Faith in Sheffield	From the 2021 census: 38.5% of the population of Sheffield are Christian, Muslim (10.3%), Hindu (0.4%), Buddhist (0.3%), Sikh (0.4%) and Jewish (0.1%). - More than 43.4% have no religion while 6% declined to state a religion.
	Faith in Barnsley	From the 2021 census: Christian: 125,503 people or 51.3%, Muslim: 1,404 or 0.6%, Buddhist: 435 people or 0.2%, Hindu: 416 people or 0.2%, Sikh: 256 people or 0.1%, Jewish: 62 people or 0.03%, Other – 116,558 people or 47.7%
	Diversity	A range of people from different social and ethnic backgrounds.
	Affiliation	To be officially attached to, or to belong to a group or organisation.

Lesson 3: Religious Identity

	Identity	The characteristics of a person which make them who they are. An example is their race or religion.
	Worship	The feeling or expression of showing faith to God or Gods. An example is through prayer or meditation.
	Conservative	Holding traditional values. For example, in a religious sense, following strictly the rules and teachings set out in holy books.
	Liberal	A way of understanding religion that is open to new ideas and change. People with these beliefs often interpret teachings in a modern way and may not follow every rule exactly as written. For example, accepting women to be church leaders.



Core knowledge

Many Christians worship both publicly and privately. Worship is important because it creates a personal relationship between the believer and God. Some people believe that they gain a better understanding of Christianity through attending services.

Faith in Society

Lesson 4: Diversity within religion

	Denomination	A recognised branch of the Christian Church.
	Secular	Having little connection with religion.
	Contemporary	Belonging to or occurring in the present.
 Sunni and Shi'a		- A difference in practice is that Sunni Muslims pray 5x a day and Sunni Muslims combine prayers so pray 3x a day - The religion of Islam split following the death of the Prophet Muhammad (pbuh). - Around 85% of the Muslim population identify as Sunni, and around 15% as Shi'a.

Lesson 5: Is Britain becoming more secular?

	Secularisation	The process by which society becomes less affiliated with religion.
	Conversion	The fact of changing one's religion or beliefs or the action of persuading someone to change theirs. For example, Islam has a high rate of people converting into the religion.
	Practicing	Actively following and living out a religion by taking part in its beliefs and actions. For example, praying, attending worship and following its rules.
	Islam	A monotheistic religion where people believe in one God (Allah) and follow the teachings of Prophet Muhammad (pbuh), which are written in the Qur'an. According to national and international statistics, Islam is the fastest growing world religion.
	Why might we say Britain is becoming more secular?	Older people with an attachment to the Church of England and other Christian denominations are gradually being replaced in the population by less affiliated, younger people.

Lesson 6 and 7: What does it mean to be a humanist?

	Humanism	A non-religious belief that focuses on human beings, reason and compassion. Humanists do not believe in god; instead, they believe people should make their own choices and live good, ethical lives by caring for others..
	Humanist Principles	- Respect for others - People should all be able to decide how they want to live their lives - Humanists use reasoning to make decisions and solve problems - Humanists make choices based on what will help make human life and the world better
	Worship	The feeling or expression of respect and adoration for a deity / God
	Evolution	The process of living organisms developing over time.

Lesson 8: Multifaith society

	Social cohesion	The extent to which people in society are bound together and integrated and share common values.
	Diverse	Including or involving people from a range of different social and ethnic backgrounds and of different genders, sexual orientations, etc.
	Multicultural	Relating to or containing several cultural or ethnic groups within a society.

RESPECT AND RELATIONSHIPS

Lesson 1: Healthy Relationships

Types of relationships	• Romantic relationships • Sexual Relationships • Friendships • Professional Relationships • Colleagues • Acquaintances	
Signs of a negative relationship	• Lack of trust • Negative comments on your appearance • Ignores your decisions • Possessive nature	
Gaslighting	When someone tricks another person into doubting their own thoughts or memories, making them feel confused or unsure of themselves.	
Toxic relationship	A relationship where a person is treated badly, controlled or made to feel unhappy or worthless over time.	
Stalking	When someone repeatedly follows, watches, contacts, or bothers another person in a way that makes them feel frightened, unsafe, or uncomfortable.	
Harassment	Harassment is repeated behaviour that hurts, scares, or upsets someone on purpose.	

Lesson 2: Online Intimacy and Sharing Content

Sharing explicit content	• It's illegal to share sexual images of under-18s (even of yourself). • Sending explicit images can break the law if done without consent. • Online images can spread quickly and be hard to delete. • Pressuring someone for images is wrong and can be illegal. • Schools and police may take action if this happens.
Explicit	Explicit means showing or describing private body parts or sexual behaviour
Intimacy	Intimacy is feeling close, safe, and connected with another person.

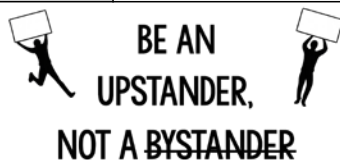
Lesson 3: Grooming

Grooming	When someone builds a relationship, trust and emotional connection with a child or young person so they can manipulate, exploit and abuse them.
Push factors	Factors that "push" victims away from those around them and make the person possibly more vulnerable. Such as encouraging a person to leave friendships.
Pull factors	Factors that "pull" young people closer to the groomer (actions the groomer may do) e.g., becoming their friend online and giving them someone to confide in.

RESPECT AND RELATIONSHIPS

Lesson 4: Bullying and Hate Speech

Bullying	The repetitive, intentional hurting of one person or group by another person or group. It can happen face to face or online.
Free speech	The right to hold and share opinions and ideas freely, without fear of retaliation or censorship by the government, or others.
Hate speech	Expressing hate or encouraging violence towards a person or group based on a protected characteristic.
Bystander	A person who is present at an incident but does not take part.
Upstander	Is someone who sees what happens and intervenes, interrupts, reports or speaks up to stop the bullying.
Outing	Revealing someone's sexuality without their consent.



L6: Trolling

Meme	A typically funny and topical image video or text that spreads quickly.
Anonymous	When someone doesn't know who you are – and you don't know who they are. Examples include using a fake profile or name, or an anonymous question app.
Troll	Someone who purposefully behaves offensively or annoyingly online for a reaction.
Viral	Something that spreads quickly and is widely recognised.
Dox	To maliciously reveal someone's personal information without consent.

Lesson 5: The Media and Body Image

Body image	A person's perception of how attractive their body is.
Mental Wellbeing	When an individual is happy, content and can cope with the normal stresses of life.
Physical health	The condition of our bodies, how healthy we eat and the physical exercise we do.
Masculine	Having qualities or attributes traditionally associated with men.

ROLE MODELS AND SOCIAL JUSTICE

L1: Role Models: Religion in Sport - Mo Salah	
Islamophobia	Fear, hatred of, or prejudice against Islam or Muslims.
The Five Pillars of Islam	The 5 duties Muslims should follow that guides them to how to behave. They are ordered based on frequency they are completed.
1. Shahada (Faith)	The declaration of faith in one God (Allah) and His messenger (peace be upon him).
2. Salah (Prayer)	The ritual prayer required of every Muslim five times a day throughout their lifetime.
3. Zakat (Donations)	Giving a portion of a Muslim's wealth to those in need throughout their lifetime. Zakat is usually 2.5%
4. Sawm (Fasting)	The act of fasting during the holy month of Ramadan. Ramadan is the 9 th month of the Islamic calendar.
5. Hajj (Pilgrimage)	A pilgrimage to Mecca required of every Muslim at least once in their lifetime where possible.
Role Model	A person looked to by others as an example to be imitated.

L2: Role Models: Religion in Sport - Muhammad Ali	
Pacifist	A person who believes that war and violence are unjustifiable.
Conscientious Objector	An individual who has claimed the right to refuse to perform military service on the grounds of freedom of thought, conscience, or religion.  • Muhammad Ali was one of the most famous conscientious objectors to the Vietnam War • Desmond Doss was a Seventh-day Adventist conscientious objector during World War II, meaning he opted against carrying a gun while serving in active duty • Doss became famous for receiving the Congressional Medal of Honor for bravery amid combat while upholding his principled stance



Shahada



Salat



Zakat



Sawm



Hajj

ROLE MODELS AND SOCIAL JUSTICE

L3: Role Models: LGBTQ Right- Bishop Christopher

Liberal Christian	Interpreting Christian teachings whilst considering modern knowledge, science and ethics.
Conservative Christian	Adhere to conservative religious values of the Christian faith.
LGBTQ Rights in Uganda	Both male and female homosexual activity is illegal.
Christopher Senyonjo	A Ugandan priest and LGBT rights campaigner. He was promoted to bishop in the Church of Uganda in 1974 and retired in 1998. In 2001, he was barred from performing services.
Homophobia	Dislike of or prejudice against gay people.

L4: Religious Inequality - Malala

Taliban	A radical terrorist group located along the Afghan and Pakistan border.
Malala Yousafzai	Pakistani girl shot by the Taliban. She is an ambassador for women's rights across the world.
Nobel peace prize	Malala Yousafzai was awarded the Nobel Peace Prize for her fight for the right of every child to receive an education.
Gender Inequality	A social construct whereby men and women are not treated equally.

L5: Role Models: Religion and Race Inequality – MLK

Civil rights	Civil rights are the rights and freedoms that everyone should have, such as being treated fairly and equally regardless of their race, religion, or background.
Martin Luther King	Martin Luther King Jr. was an American church leader and civil rights activist who fought for equal rights for Black people in the United States using peaceful protest.
Protestant Christian	A Protestant is a Christian who belongs to a group that separated from the Catholic Church and has some different beliefs and practices.
MLK quote	"I have a dream that my four little children will one day live in a nation where they will not be judged by the colour of their skin but by the content of their character"
Love Thy Neighbour	This means respecting others and regarding their needs and desires as highly as we regard our own.
Justice	Treating people fairly and making sure everyone gets what they deserve under the law.



**“When the whole world is silent,
even one voice becomes powerful.**

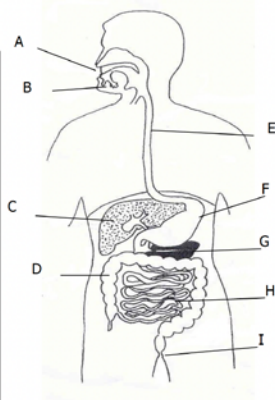
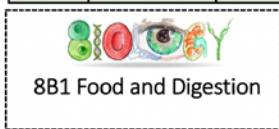
— Malala Yousafzai

Nutrient	What it is needed for	Examples
Protein	Growth and repair	Meat, cheese, eggs
Carbohydrate	Energy	Bread, pasta, rice
Fat	Energy store and insulation	Butter, Chocolate, avocado
Fibre	Keep substances moving through the digestive system	Fruit, vegetables, cereals
Vitamins	Needed in small amounts to maintain health	Fruit and vegetables
Minerals	Needed in small amounts to maintain health	Meat, milk
Water	Needed for cells and body fluids	Water

Digestive enzymes – chemical breakdown of food

Carbohydrase	Breaks down carbohydrates into simple sugars
Amylase	Breaks down starch into sugars.
Protease	Breaks down proteins into amino acids
Lipase	Breaks down lipids (fats) into fatty acids and glycerol.

Food	Test	Positive colour
Starch	Iodine solution	Black
Protein	Biuret solution	Purple
Sugar	Benedict's solution (heat in 75°C water bath for 5 minutes)	Orange (brick red)



Obesity	Malnutrition
Eating too much and not using the same amount of energy consumed. Gaining weight which could lead to heart disease , high blood pressure and diabetes .	Eating too little or not enough of each of the food groups. Causes deficiency diseases such as rickets , scurvy etc...
Increase exercise or cut down food intake to make energy intake and energy use equal	Need to eat a balanced diet , a sufficient amount of all food groups.

Part	Job
A Mouth	Mechanical breakdown of food
B Salivary glands	Release saliva to lubricate food, contains amylase
C Liver	Produces bile that neutralises stomach acid
D Large intestine	Absorbs water
E Oesophagus	Transports food to stomach
F Stomach	Contains hydrochloric acid protease and churns food
G Pancreas	Produces all digestive enzymes
H Small intestine	Digested food absorbed into blood here to be transported by the bloodstream to all body cells
I Anus	Faeces (waste food) released here

8C1: Atoms and Elements

Periodic Table

GROUPS

PERIODS

Metals | **Non-metals**

Metals are found at the left and bottom of the periodic table.

Non-metals are found at the top right of the periodic table.

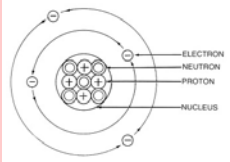
Formulae

A **chemical formula** tells you the type and number of atoms in an element or a compound.

Eg. H_2O – the 2 is with the element before it, so this contains 2 hydrogen atoms and 1 oxygen atom.

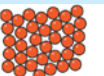
Formula	Number and type of atoms
H_2SO_4	2 hydrogen atoms, 1 sulfur atom, 4 oxygen atoms.
Na_2CO_3	2 sodium atoms, 1 carbon atom, 3 oxygen atoms.

Key Terms

Term	Essential Knowledge
Atom	The smallest particle. 
Element	A substance made of 1 type of atom.
Compound	Two or more elements, chemically joined in fixed proportions.
Subatomic particle	Particles smaller than an atom: proton, neutron and electron.
Thermal Decomposition	A chemical reaction where a chemical breaks down when heated.
Periodic table	A table of elements arranged by atomic (proton) number.
Anomalous Result	A result that does not fit the pattern shown by the data. Not included in line of best fit. Not used when calculating a mean.
Calculating mean	Identify and leave out any anomalous results, then add up the values and divide by the number of values.

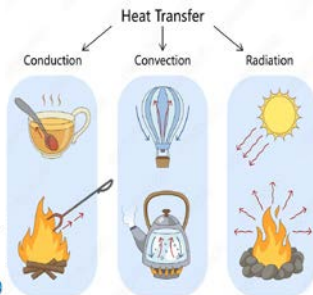


8P1: Heat Transfer

Particle Model		
State	Arrangement of particles.	Diagram.
Solid	Particles have a regular arrangement. Particles can vibrate. Solids have a fixed volume and fixed shape. Solids cannot be compressed.	
Liquid	Particles are arranged randomly. Particles are all touching but can move past one another. Liquids have a fixed volume, take the shape of the container and cannot be compressed.	
Gas	Particles are spread far apart in a random order. Particles move quickly. Gases take the shape and volume of the container. Gases can be compressed.	

How to calculate temperature change

1. Measure initial temperature (T_i)
2. Begin heating (e.g. with Bunsen burner)
3. Wait until temperature rises and stabilises
4. Measure new temperature (T_f)
5. Calculate change: $\Delta T = T_f - T_i$



ENERGY	
TERM	Essential Knowledge
Conductor	Material that allows heat to pass through easily.
Insulator	Material that slows down heat transfer.
Expansion	The increase in size of a substance when heated.
Contraction	The decrease in size of a substance when it is cooled.
Infrared radiation	Type of electromagnetic wave that transfers heat.
Heat Transfer	Energy that is moved between thermal energy stores.
Conduction	The transfer of heat through a material by direct contact between particles.
Convection	The flow of thermal energy from a region of high temperature to a region of low temperature by movement of a fluid.
Radiation	The transfer of thermal energy from a region of high temperature to a region of low temperature by infrared radiation.
Particle Model	A scientific theory used to explain that all matter is made of tiny particles, which behave differently in solids, liquids, and gases.

Science Vocabulary



8B1 Food and digestion

Word	Definition
Carbohydrate	Sugars or starch that provide energy
Protein	Chemical needed for growth
Fats	Chemicals that provide energy
Fibre	Chemicals that help to keep the gut healthy
Iodine	Used to test food for starch
Benedict's reagent	Used to test food for sugars
Biuret reagent	Used to test food for protein
Stomach	Organ where protein is digested
Small intestine	Organ where food is digested and absorbed into the blood
Digestive enzymes	Chemicals that speed up the breakdown of food

8C1 Atoms and Elements

Word	Definition
Atom	The smallest part of an element
Element	Made from 1 type of atom
Periodic table	List of all the elements
Nucleus	Centre part of the atom
Shell	Ring around the nucleus
Proton	Positive particle in the nucleus
Neutron	Neutral particle in the nucleus
Electron	Negative particle in the shell
Compound	2 or more elements joined together in a fixed proportion
Chemical Formula	How many atoms of each element in a substance
Mixture	When two or more substances are together but not joined together

8P1 Heat transfer

Word	Definition
Thermal energy store	Where energy is stored because of its temperature
Heat or "heat transfer"	Energy that is moved between thermal energy stores
Temperature	How hot something is, because its particles are moving
Thermal equilibrium	When two objects are at the same temperature
Expansion	Something gets larger
Contraction	Something gets smaller
Conduction	Heat transfer when two objects touch or inside a single object
Insulation	Something that decreases conduction
Convection	Heat transfer when a liquid or gas moves because hotter, less dense particles move upwards
Radiation	Heat transfer due to hot object giving off light
Evaporation	A liquid becomes a gas below the temperature for boiling
Change of state	Something goes from one of the three states (solid liquid, gas) to another

Y8 Spanish Term 1

Spanish phonics			
Spanish	Pronunciation	Spanish	Pronunciation
a	ah	h	is silent
e	ay	j	h
i	ee	ll	y
o	oh	ñ	nya
u	oo	que	kay
ci	thee	qui	key
ce	thay	v	b
ge	hey	y	ee
gi	hee	z	th

KS3 Tier 3 Vocabulary: Year 8

Key word	Definition
Conjugate	Putting a verb into all its forms e.g. <i>I go, you go, he/she goes, we go, they go</i>
Tense	When an action is happening – <i>past, present or future</i>
Infinitive	The full form of a verb before you change it to talk about someone e.g. <i>to go = ir/aller, to visit = visitar/visitar</i>
Cognate	A word that looks or sounds similar to English.
Intensifier	Adding emphasis by using <i>very, a little bit, quite or too much</i> .



Los días de la semana (The days of the week)	
lunes	Monday
martes	Tuesday
miércoles	Wednesday
jueves	Thursday
viernes	Friday
sábado	Saturday
domingo	Sunday

Los meses del año (The months of the year)	
enero	January
febrero	February
marzo	March
abril	April
mayo	May
junio	June
julio	July
agosto	August
septiembre	September
octubre	October
noviembre	November
diciembre	December

Los números (Numbers)							
0	cero	8	ocho	16	dieciséis	24	veinticuatro
1	uno	9	nueve	17	diecisiete	25	veinticinco
2	dos	10	diez	18	dieciocho	26	veintiséis
3	tres	11	once	19	diecinueve	27	veintisiete
4	cuatro	12	doce	20	veinte	28	veintiocho
5	cinco	13	trece	21	veintiuno	29	veintinueve
6	seis	14	catorce	22	veintidós	30	treinta
7	siete	15	quince	23	veintitrés	31	treinta y uno
40	cuarenta	60	sesenta	80	ochenta	100	cien
50	cincuenta	70	setenta	90	noventa	101	ciento uno

Los números 20 - 100 Numbers 20 - 100

veinte	20	setenta	70
treinta	30	ochenta	80
cuarenta	40	noventa	90
cincuenta	50	cien	100
sesenta	60		

1.1 ¿Qué hay en tu ciudad?

SB1.1 ¿Qué hay en tu ciudad? (What is there in your city?)				
En mi ciudad (In my city)	hay (there is/are)	un castillo (a castle)	un museo (a museum)	unos museos (some museums)
En mi pueblo (In my town)		un mercado (a market)	un restaurante (a restaurant)	unas plazas (some town squares)
En <u>Barcelona</u> (In Barcelona)		un estadio (a stadium)	una piscina (a swimming pool)	muchos parques (lots of parks)
		un centro comercial (a shopping centre)	una plaza (a town square)	muchas tiendas (lots of shops)
		un polideportivo (a sports centre)	pero (but)	no hay castillo (there isn't a castle)
		un parque (a park)	sin embargo (however)	no hay restaurantes (there aren't any restaurants)
Me gusta (mucho) vivir (I really like living...)	en mi ciudad ⁽ⁿ⁾ (in my city)	porque es (because it's)	interesante (interesting)	aburrido/a (boring)
No me gusta (nada) vivir (I don't like (at all) living...)	en mi pueblo ⁽ⁿ⁾ (in my town)	porque no es (because it's not)	tranquilo/a (calm)	ruidoso/a (noisy)
	en <u>Barcelona</u> (Barcelona)		bonito/a (pretty)	feo/a (ugly)
			más interesante que Madrid (more interesting than Madrid)	

1.2 ¿Qué haces en la ciudad?

SB1.2 ¿Qué haces en la ciudad? (What do you do in your city?)				
Las fines de semana (At the weekends)	voy al cine (I go to the cinema)	a la una (at 1 o'clock)		es divertido (it's fun)
A veces (Sometimes)	voy al parque (I go to the park)	a las cinco (at 5 o'clock)		es guay (it's cool)
Normalmente (Normally)	voy a la cafetería (I go to the cafe)	a las siete y cuarto (at quarter past 7)	porque (because)	es entretenido (it's entertaining)
Por la mañana (In the morning)	voy a la balera (I go to the bowling alley)	a las ocho y media (at half past 8)		es relajante (it's relaxing)
Por la tarde (In the afternoon)	voy a la playa (I go to the beach)	a las diez menos cuarto (at quarter to 10)		me gusta (I like it)
	salgo con mis amigos (I go out with my friends)	hasta las cinco (until 5 o'clock)		me encanta (I love it)
	no hago nada (I don't do anything)			

1.3 ¿Qué vas a hacer en tu ciudad?

SB1.3 ¿Qué vas a hacer en tu ciudad? (What are you going to do in your city?)				
Este fin de semana (This weekend)	voy a (I'm going)	ir de compras con mi hermano (to go shopping with my brother)		guay (cool)
El sábado por la mañana (On Saturday morning)	no voy a (I'm not going)	ir a la piscina (to go to the swimming pool)		interesante (interesting)
El domingo por la tarde (On Sunday afternoon/evening)		ir al parque (to go to the park)		estupendo (marvellous)
Primero (Firstly)	vas a (you are going)	ver la televisión (to watch TV)		emocionante (exciting)
Luego (Then)	va a (he/she is going)	jugar al fútbol (to play football)	y va a ser (and it's going to be)	aburrido (boring)
Más tarde (Later)	vamos a (we are going)	jugar a los videojuegos (to play videogames)		fatal (rubbish)
A las tres de la tarde (At three in the afternoon)	vais a (you are all going)	hacer los deberes (to do homework)		
	van a (they are going)	hacer muchas cosas (to do lots of things)		
		salir con mis amigos (go out with my friends)		
		montar en bici (go bike riding)		
		navegar por Internet (browse the Internet)		

1.4 ¿Qué se puede hacer en Mallorca?

SB1.4 ¿Qué se puede hacer en Mallorca? (What can you do in Mallorca?)				
En <u>Mallorca</u> se puede (In Mallorca you can)	ir de paseo en bicicleta (go for a bike ride)		hacer senderismo (go hiking)	
	ir a la playa (go to the beach)	o (or)	visitar el castillo (visit the castle)	
	ir al restaurante (go to the restaurant)	y (también) (and (also))	ver la catedral (see the cathedral)	
	jugar al golf (play golf)			
En <u>Mallorca</u> se pueden (In Mallorca you can)	hacer actividades náuticas (do water sports)			
	ver los monumentos históricos (see the historic monuments)			
En <u>Mallorca</u> se puede (In Mallorca you can)	ir al parque acuático más grande de España (go to the biggest water park in Spain)			
	ir de compras en la calle más animada de la isla (go shopping on the liveliest street on the island)			
	visitar las playas más hermosas del Mediterráneo (visit the most beautiful beaches in the Mediterranean)			

1.5 ¿Dónde está la catedral?

SB1.5 ¿Dónde está la catedral? (Where is the cathedral?)					
¿Dónde está (Where is)	el parque de atracciones? (the theme park)	Toma (Take)	la primera (the first)	calle (road)	a la derecha (on/to the right) a la izquierda (on/to the left)
	la catedral? (the cathedral)		la segunda (the second)		
¿Está cerca/lejos? (Is it near/far?)	la iglesia? (the church)	Gira (Turn)	la tercera (the third)		
	la biblioteca? (the library)				
	la estación de tren? (the train station)				
		Sigue todo recto (Keep straight on)		y está (and it is)	allí (there)
		Cruza la plaza/la calle (Cross the square / the street)			en la esquina (on the corner)
					a la <u>derecha</u> (on the right)

An important irregular verb (present tense)

ir - to go			
voy	I go I am going	vamos	we go we are going
vas	you go you are going	vais	you go you are going
va	s/he goes s/he is going	van	they go they are going

1.6 ¿Dónde vives?

SB1.6	¿Dónde vives? (Where do you live?)				
Vivo <i>I live</i>	un apartamento <i>an apartment</i>	antiguo <i>old</i>	(y está) en <i>(and it is) in</i>	el campo <i>the countryside</i>	
Vivimos <i>We live</i>	un piso <i>a flat</i>	cómodo <i>comfortable</i>		una ciudad <i>a city</i>	
Mi primo vive <i>My cousin lives</i>	un chalet <i>a bungalow</i>	grande <i>big</i>		un pueblo <i>a town/village</i>	
Mis abuelos viven <i>My grandparents live</i>	en <i>in</i>	moderna <i>modern</i>		la costa <i>the coast</i>	
		bonita <i>pretty</i>		el desierto <i>the desert</i>	
Vivía <i>I used to live</i>		pequeña <i>small</i>		la montaña <i>the mountains</i>	
Me gustaría vivir <i>I would like to live</i>		grande <i>big</i>		el norte <i>the north</i>	
				el sur <i>the south</i>	
				el este <i>the east</i>	
				el oeste <i>the west</i>	

An example of a regular -ir verb (present tense)

Vivir - to live			
vivo	<i>I live</i>	vivimos	<i>we live</i>
vives	<i>you live</i>	vivís	<i>you live</i>
vive	<i>s/he lives</i>	viven	<i>they live</i>

1.7 ¿Cómo es tu casa?

SB1.7	¿Cómo es tu casa? / ¿Cómo sería tu casa ideal? (What is your house like? / What would your ideal house be like?)				
Mi casa tiene <i>My house has</i>	un salón <i>a living room</i>	ordenado <i>tidy</i>	donde <i>where</i>	veo/vemos la tele <i>I watch/we watch the tv</i>	
En mi casa hay <i>In my house there is/are</i>	un comedor <i>a dining room</i>	desordenado <i>untidy</i>		como/comemos <i>I eat/we eat</i>	
En la planta baja hay <i>On the ground floor there is/are</i>	un dormitorio <i>a bedroom</i>	amplio <i>spacious</i>		descanso <i>I relax</i>	
	un cuarto de baño <i>a bathroom</i>	pequeño <i>small</i>		descansamos <i>we relax</i>	
Arriba hay <i>Upstairs there is/are</i>	un estudio <i>a study</i>	acogedor <i>cosy</i>		veo/vemos la tele <i>I watch/we watch the tv</i>	
Fuera hay <i>Outside there is/are</i>	un jardín <i>a garden</i>	grande <i>big</i>		hago los deberes <i>I do homework</i>	
	una cocina <i>a kitchen</i>	ordenada <i>tidy</i>		juego a los videojuegos <i>I play video games</i>	
	una entrada <i>an entrance</i>	acogedora <i>cosy</i>			
	una piscina <i>a swimming pool</i>	grande <i>big</i>			
Mi casa ideal tendría... <i>My ideal house would have...</i>					
Si fuera posible habría <i>If it were possible there would be...</i>					

Aim High

Be Determined

Be Kind

Be Supportive

Be Proud



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