



PENISTONE GRAMMAR SCHOOL

Achieving Excellence through a Values-Driven Education

YEAR 8 BOOK 3

ESSENTIAL KNOWLEDGE SHEETS CURRICULUM BOOK

Aim High

Be Determined

Be Kind

Be Supportive

Be Proud

CONTENTS

**04 WELCOME TO YOUR
ESSENTIAL KNOWLEDGE BOOK**

06 ART

10 COMPUTING

13 DESIGN AND TECHNOLOGY

GRAPHIC PRODUCTS
RESISTANT MATERIALS
FOOD
TEXTILES

24 DRAMA

27 ENGLISH

DIVERSE TEXTS
FEMALE VOICES

32 FRENCH

36 GEOGRAPHY

ENERGY
INVESTIGATIONS
ENVIRONMENTAL
ISSUES

40 HISTORY

PROTEST

42 MATHS

49 MUSIC

59 PE

ATHELETICS
CRICKET
WARM-UP

63 RCS

CITIZENSHIP CAREERS
EVIL AND SUFFERING
RIGHTS AND
RESPONSIBILITIES

68 SCIENCE

BIOLOGY
CHEMISTRY
PHYSICS
VOCABULARY

72 SPANISH

76 NOTES

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 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.

Drawing as Mark-making

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

YEAR 8 ESSENTIAL KNOWLEDGE SHEET

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.

TONAL

Gradually add more pressure for each darker value.

Increase pressure

Use very light pressure for 1st values

Controlling blends in Values

Line and linear drawing

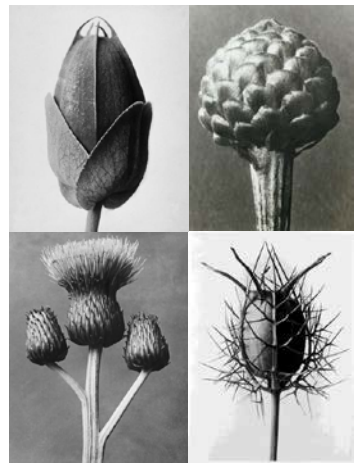
Horizontal	Broken	Loose	Repetitive	Subtle
Dark	Broken	Rhythmic	Rhythmic	Lines/dots
Directional	Directional	Cross-hatching	Diagonal-hatching	Cross-hatching
Broad area	Directional	Sharp	Interlocking	Ripples

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.



Karl Blossfeldt (1865-1932)
Photographer and Sculptor



Selected Photographs

Elements of Art
LINE TONE COLOUR SHAPE TEXTURE
COMPOSITION

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



Test Tiles



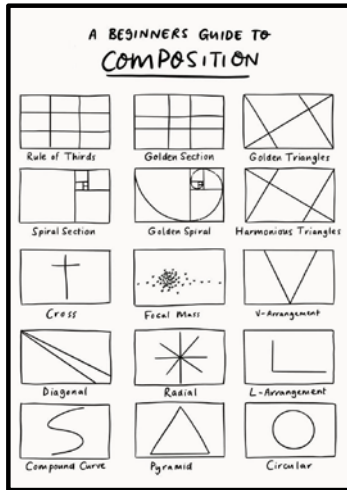
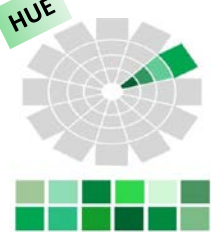
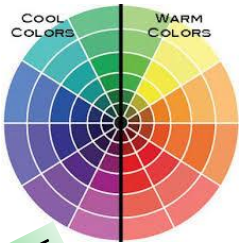
Elements of Art
FORM TEXTURE COLOUR
LINE TONE SHAPE

YEAR 8 ESSENTIAL KNOWLEDGE SHEET



Compositional Drawing

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



Examples of Pop Artists:
 Roy Lichtenstein (1923-1997)
 Andy Warhol (1928-1987)
 Michael Craig-Martin (B1941)



Composition II (1996)
 Roy Lichtenstein

Elements of Art
 LINE TONE COLOUR
 PATTERN SHAPE TEXTURE

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.

YEAR 8 ESSENTIAL KNOWLEDGE SHEET

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.

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

YEAR 8 ESSENTIAL KNOWLEDGE SHEET

MiXed Media

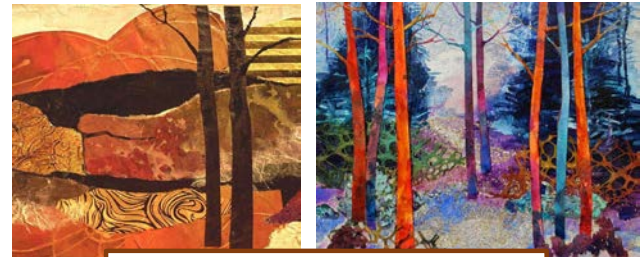


Mixed media describes artwork in which more than one medium or material has been used such as paint, pencil, pen, paper, pastel, string, thread, fabric etc.

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



Examples of Carol Nelson's work



Elements of Art: LINE TONE COLOUR PATTERN SHAPE TEXTURE



COMPUTING

8.4 Digital Literacy

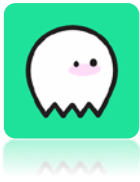


Key Terms:

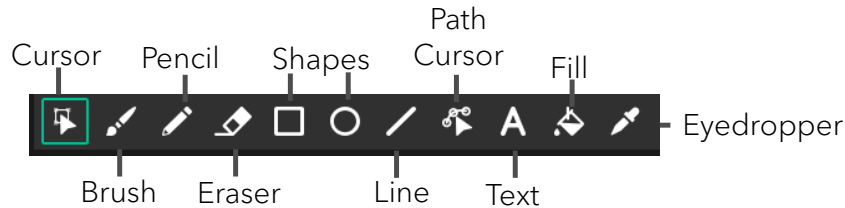
Frames	A single image in a sequence
Tween	A technique for creating smooth movement between frames
Storyboard	A series of drawings and annotations, which show how a story unfolds

Additional Terms:

Animation	Successive drawings to create an illusion of movement when played
Timeline	Controls the speed and when objects enters and exits the scene



Formatting tools within Wick Editor - www.wickeditor.com

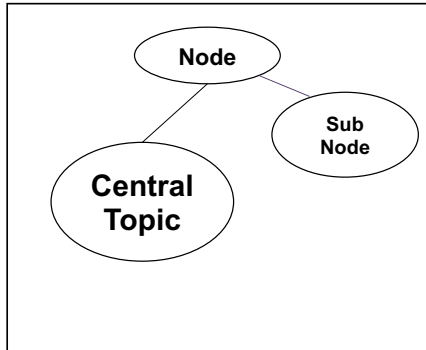




COMPUTING

8.4 Digital Literacy

Mind Map:



Mind Maps contain a **Central Topic**, **Nodes**, **Sub-nodes**, and **Branches**

File formats:

- **Images** -
• .jpg
- **Sound** -
.mp3
- **Exported animation** -
.gif

Storyboard:



Storyboards should include:

Scene representation
Description of scene, Scene number, Camera Angles/Shots, Timings, Lighting, Location, Stage directions



COMPUTING

8.4 Digital Literacy

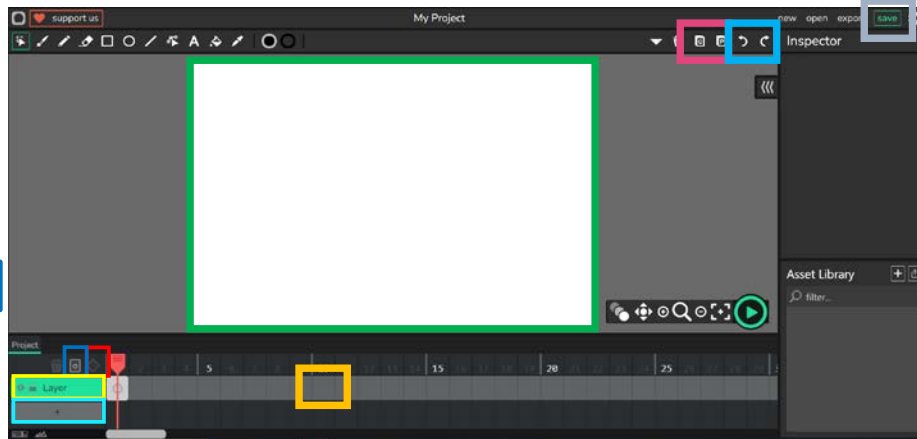
Wick Editor:

Stage

Copy/Paste

Undo/Redo

Save



Keyframe

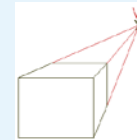
Layer

Add layer

Individual
Frame

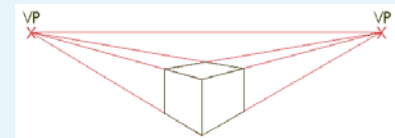
Tweening

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 'Coca Cola'.
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 dye is absorbed into the second layer of the paper.
Polymer Coating	A polymer coating (plastic) that absorbs the evaporated ink during the sublimation process.



One point perspective

Two-point perspective



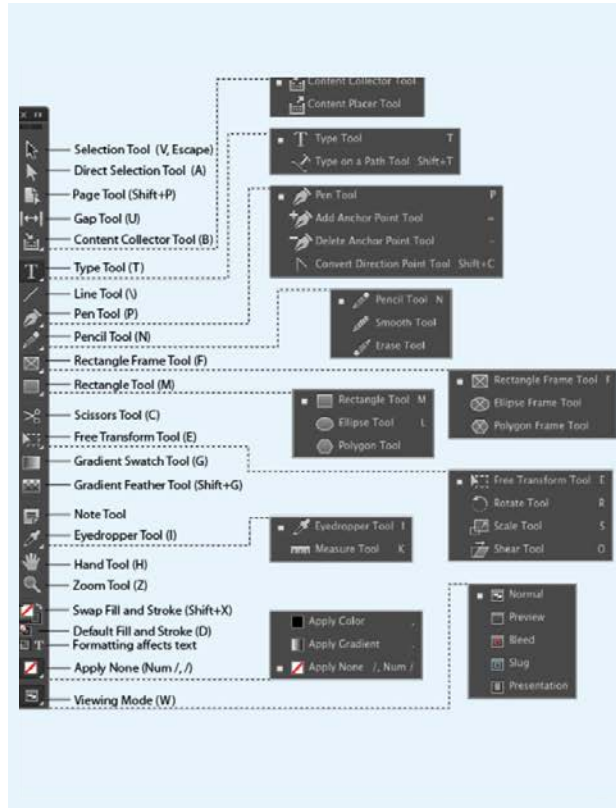
Photoshop (CAD software)



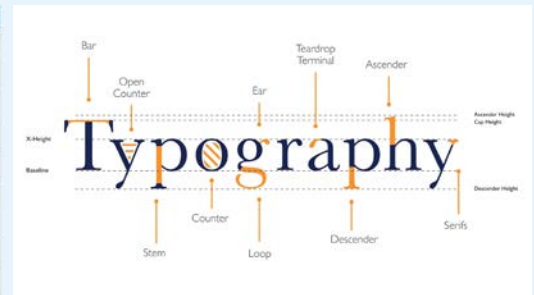
Techsoft 2D design (CAD software)



Laser cutter



Action	Shortcut
New File	Ctrl + N
Open File	Ctrl + O
Save	Ctrl + S
Save As	Shift + Ctrl + S
Print	Ctrl + P
Undo	Ctrl + Z
Step Backward	Alt + Ctrl + Z
Step Forward	Shift + Ctrl + Z
Select all	Ctrl + A
Group Layers	Ctrl + G
Zoom In	Ctrl +
Zoom out	Ctrl -



Heat press



Die cutter

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
Manufactured Board	Man-made wood product bonded with resin	Uses waste wood, stable, cheap	Flat-pack furniture, model bases
Pine	Common softwood	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
Drill	Power or hand tool 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
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

Manufactured board



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

MDF



Finewood fibres pressed with resin.
 + Smooth surface, easy to shape
 + Furniture carcasses, prototypes
 -

Plywood



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

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.
 + Cheap and lightweight
 + Furniture, interior panery
 -

Oak



Common hardwood.
 + Head-wearing, attractive grain
 + Furniture, flooring
 -

Beech



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

Safety goggles



Protective eyewear.
 + Prevents eye injuries
 + 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.
 + Straight, holds work securely
 + Clamping pieces for gluing
 -

Bench hook

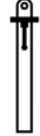
Wooden guide for sawing.
 + Keeps work steady
 + Cutting wood safely
 -

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
 -

Drill



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

Countersink bit



Drill bit for widening screw holes.
 + Wood joints and fittings
 -

www.learnmix.com

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:

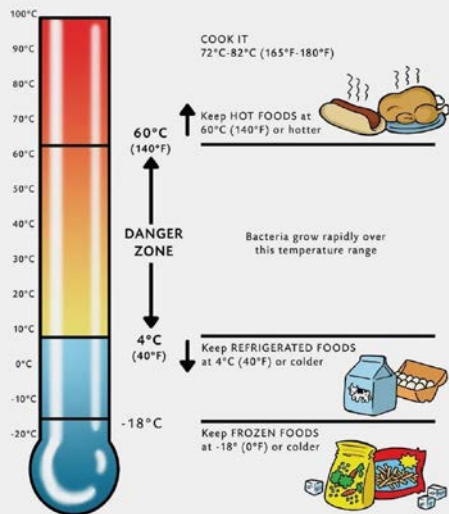
👉 **Look after the planet now, so it's still healthy in the future.**

Examples:

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



Temperature Danger Zone



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

It is important to store, prepare and cook foods safely to reduce the risk of bacteria multiplying and causing foodborne illness (food poisoning). **Bacteria need the following conditions to grow:** **Moisture (Water)** **Time** **Warmth (Temperature)** **Food**

Food safety	
Bacteria	A microorganism that can reproduce rapidly. Can be found everywhere including raw food, on people and pets, in the air and dust, on equipment and in soil.
'Best before' date	Date mark on packaging of lower-risk foods e.g. dried pasta that tells you 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.
Raising agent	Something that releases bubbles of gas that expand when heated. Used to make cake and dough mixtures rise.
'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.

The 4 C's



- 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.



- 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.



- 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
- Organise the fridge and raw meat should be covered on the bottom shelf.



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 coloured chopping boards for different foods



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.











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.

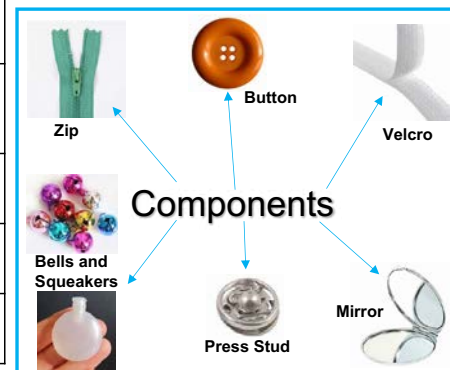
Nutrition		
Nutrient	Food Example	Function in the body
Carbohydrate	Sugar – found naturally in fruit and vegetables. Starch – potatoes, bread, rice, pasta	Energy.
Protein	Animal – meat, fish, poultry, eggs, dairy products. Plant – peas, lentils, nuts, seeds	Growth from childhood to adulthood. Repair 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.

Functions of ingredients	
Flour	<ul style="list-style-type: none"> Main ingredient, forms the structure of bread and pastry. Self-raising flour – contains a raising agent to help cakes rise.
Sugar	<ul style="list-style-type: none"> Sweetens foods. When creamed with fat, helps to hold air in mixture.
Margarine	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Trap air when whisked to create a foam.
Lard	<ul style="list-style-type: none"> Shortens pastry to keep a crumbly texture.
Yeast	<ul style="list-style-type: none"> Raising agent used in bread.
Water	<ul style="list-style-type: none"> Binds dry ingredients together.
Salt	<ul style="list-style-type: none"> Adds flavour. In bread, strengthens gluten and controls yeast action.

Food Science	
Raising agent	An ingredient that helps a product rise.
Aeration	Adding air into ingredients.
Coagulate	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.






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.
Cotton Jersey knit 	Breathable, Stretchy Soft, Lightweight, Absorbent, Biodegradable, Crease Resistant	It doesn't retain its shape well when over stretched. Unravels if cut or snagged as made from one continuous yarn.
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, the pile cord can wear down with abrasion, takes a long time to dry.

Y8 Design Technology: Textiles Essential Knowledge Organiser

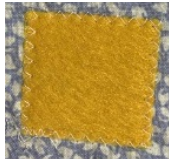


Y8 Design Technology: Textiles Essential Knowledge Organiser




Decorative Technique	Description
 <p data-bbox="145 367 300 387">Machine Applique</p>	<p data-bbox="359 259 839 378">Applique is completed on a sewing machine using a C2 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 (lies flat to the product) and 3D applique (applique which protrudes from the surface such as ears, legs, a tail etc.) on a sewing machine.</p>
 <p data-bbox="161 510 284 530">Hand Applique</p>	<p data-bbox="359 402 839 520">When applique is completed by hand sewing. 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.</p>
 <p data-bbox="129 649 322 669">CAD/CAM Embroidery</p>	<p data-bbox="359 544 847 673">CAD/CAM (Computer Aided Design/Computer Aided Manufacture) Embroidery is an automated process to produce quick, durable and professional embroidery stitches. In manufacture of toys it is used for motifs, decorative stitches and elements such as facial features to add durability but also to reduce the risk of choking on potential choking hazards. In school we can use CAD/CAM embroidery machines to produce letters and numbers.</p>
 <p data-bbox="150 819 296 840">Hand Embroidery</p>	<p data-bbox="359 686 847 843">Hand embroidery is a method of 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 texture 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!</p>
 <p data-bbox="113 969 339 990">Decorative Embellishment</p>	<p data-bbox="359 860 847 977">Decorative embellishment is where you sew sequins and beads onto a fabric to add 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 quite fiddly so you need to concentrate but its worth the effort when you see the finished result!</p>





Machine Applique

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



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

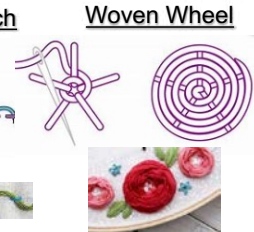
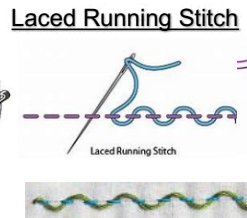
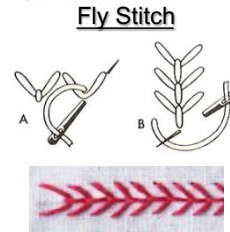
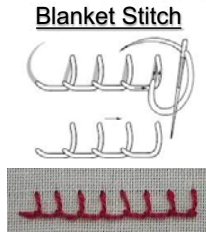
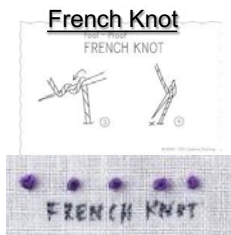
Sewing Machine Skills

Y8 Design Technology: Textiles Essential Knowledge Organiser



Key Words	Definition
Applique	A French term meaning 'to apply'. Its fabric is layered and stitched on top of each other for texture and decoration.
Design Brief	A document that outlines the requirements of a design project.
Design Specification	A detailed document that identifies specific factors required to meet the needs of the user in a design project.
Embroidery	Embroidery is the art of decorating fabric using a needle to stitch threads in decorative patterns. Embroidery may also incorporate other materials such as pearls, beads, and sequins. It is often used to personalise gifts or clothing items.
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 surface decoration such as sequins, beads, mirrors, buttons, rhine stones and feathers to add texture and aesthetic impact. Embellishments can be sewn or glued dependent on the position and the end use.

Embroidery Stitches



DRAMA

Key Terminology

Half-Term 5: Physical Theatre	
<u>Vocabulary</u>	<u>Definition</u>
Physical Theatre	<i>A form of theatre which emphasizes the use of physical movement, as in dance and mime, for expression. Telling a story through movement.</i>
Marking the Moment	<i>Pausing to highlight an important moment</i>
Symbolism	<i>Representing ideas or thoughts without being literal</i>
Frantic Assembly	<i>A theatre company who specialise in Physical Theatre</i>
Lifts	<i>To securely hold and raise people in a movement piece. Requires strength, trust and focus throughout</i>
Round-by-Through	<i>Round-by-through is a technique which involves your body movements only and being able to portray your emotions without using speech or sound. It can be used by travelling through the performance area and creating contact with other performers by either going round one another, through (under their arm for example) or simply by and just almost taking a step next to them.</i>

Half-Term 6: 'Splendid Theatre'	
<u>Vocabulary</u>	<u>Definition</u>
Playwright	<i>The person who wrote the play</i>
Themes	<i>The central idea or message explored by a play. E.g., 'Glow' explores strength and confidence</i>
Improvising for Understanding	<i>Creating scenes from scratch to fully understand our characters, their situations, and their relationships</i>
Interpretation	<i>How different actors/directors may see a character. For example, someone may play Macbeth as ruthless and ambitious, or may see him as weak and pathetic</i>
Resentment	<i>A complex emotion that can combine anger, disappointment, blame and fear</i>
Literacy	<i>How well an actor can 'read' scripts, stories and emotions</i>
Dialogue	<i>Speech between two or more characters in a play</i>
Duologue	<i>This is a scripted conversation between two characters. Our scenes in 'Glow' are all duologues</i>
Imagery	<i>Creating a clear moment on stage that can symbolize something else</i>

DRAMA

Theatre Company: Splendid Productions



Who?	Splendid Productions
When?	2003 - today!
Job?	Theatre Company
Specialism?	High energy comedy, non-naturalism

Techniques:

	Exaggerated Characterisation	Considering how we can be over-the-top with our bodies and voices to show characters
	Working an Audience	Not only breaking the fourth wall, but even including members of the audience in your work!
	Actor as Everything	Having very little (if any) props or set on stage. Actors become the objects and locations using their bodies, or even signs that have notes written on them

Top Tips:

Ways to learn lines	<ol style="list-style-type: none"> 1. Rehearse with a partner 2. Record yourself saying your lines and listen back to them 3. Think about what you do and how you move during your speech - you can then assign a movement or gesture to a particular line
Researching ideas	<ol style="list-style-type: none"> 1. Use the internet to help find answers, but don't rely on just one website (and make sure you don't just use Wikipedia!) 2. Ask friends/relatives about your topic. They may be able to give advice or help 3. Create a mind-map with all your ideas on it. This way, you can visually see all the ideas you have so far
Costume and Props	<ol style="list-style-type: none"> 1. Costume and props need to add to the performance - not just because you want to wear something comfy! 2. Think: 'why these specific clothes?'



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

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

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

Diverse Texts – Narrative Writing

Descriptive Techniques	
Adjective	Word that describes a noun
Adverb	Word that describes an action (verb)
Alliteration	Group of words beginning with same letter
Metaphor	Something IS something it isn't
Noun	Object/emotion/idea
Onomatopoeia	Word that sounds like noise it represents
Personification	Giving human characteristics to non-human thing
Preposition	States position of something
Simile	Comparing using 'like' or 'as'
Verb	Doing/thinking/feeling word
5 Senses	Describing sight, sound, feel, smell, taste

	Different types of narrative voice	Example
First person	A character within the story is telling the story. Some of the main personal pronouns used are <i>I, my, me, we</i> .	<i>I watched as the boat sank. I felt a mixture of relief and guilt. I turned to take the rudder, pushing away the thoughts that crawled like ants into my mind.</i>
Second person	Not commonly used by writers. The personal pronouns <i>you</i> and <i>your</i> are used throughout.	<i>You watch as the boat slowly sinks. You feel relief mixed with guilt. You turn and take the rudder, pushing away the thoughts that crawl like ants into your mind.</i>
Third person	The story is being told by the voice of someone who is not a character in the story. The main personal pronouns used are <i>she, he</i> and <i>they</i> .	<i>George watched as the boat slowly sank. He felt relief mixed with guilt. He turned to take the rudder, pushing away the thoughts that crawled like ants into his mind.</i>
Third person omniscient	The story is being told by a voice who shows they know more than the characters in the story – the narrator is all knowing. The main personal pronouns used are <i>she, he</i> and <i>they</i> .	<i>George watched as the boat sank. He felt relief mixed with guilt. Six miles away a group of fishermen watched the horizon, looking for signs of the storm they could feel in the air.</i>



Key Writing Skills

Short, simple sentences

A simple sentence only has a main clause. This means that it has a subject and a main verb – it sometimes might have an object too. It doesn't have any conjunctions or subordinate clauses.

Sometimes, writers might use a one-word sentence for impact.

Colons :

A colon has many uses: it can introduce a list, and it can be used to add an explanation/clarification.

Think of a colon like an equals sign: whatever is on either side of the colon has to be talking about the same topic or idea. You cannot introduce a new idea after a colon.

The information after a colon does not need to be a complete sentence.

Show, don't tell

The reader is able to experience the story and characters through actions, thoughts, sensory details, and feelings, rather than just a factual description. Using this technique helps paint a picture of the scene for the reader.

Success Criteria for Creative Writing

1. I use a wide variety of punctuation accurately. E.g. ? , () ! ; ;
2. I use different lengths of sentences to vary the pace and emphasis of my writing. Attempted Clear Crafted
3. I use different ways of opening sentences to make my writing engaging. E.g. starting with an -ly, -ed or -ing word. Attempted Clear Crafted
4. I use paragraphs well to organise my writing. (TiP ToP – Time, Place, Topic, Person)
5. I use different lengths of paragraphs to make my writing engaging. E.g. using a single sentence paragraph to add tension. Attempted Clear Crafted
6. I spell ambitious words correctly, only making occasional errors.
7. I use language devices effectively to make my writing engaging e.g. simile, metaphor, personification. Attempted Clear Crafted
8. I use ambitious and imaginative vocabulary, which is suitable for the piece I am writing. Attempted Clear Crafted
9. I proofread my work carefully (check full stops, capital letters, spellings etc)

WAGOLLS

As I mentioned before I'm not in the habit of making friends with strangers, but there was something about this girl. Her eyes were encircled with dark shadows so that even when she smiled – introducing herself cheerily as Laylor – they remained mournful as a glum kid at a party. I took this fraternisation as defeat but I had to introduce her to a better portrait.

They began talking in whatever language it was they spoke. Laylor's tone was pleading; the boy's aggrieved. Laylor took the money from her pocket and held it up to him. She slapped his hand away when he tried to wrest all the coins from her palm.

It was then that I began to notice things I had not seen before...dirt under each of her chipped fingernails, the collar of her blouse crumpled and unironed, a tiny cut on her cheek, a fringe that looked to have been cut with blunt nail clippers. I found a tissue and used it to wipe my sweating palms.

With the teacup resting on her lip, she said 'my brother. He wants to know where we sleep tonight.'

'Oh yes, where's that?' I was rummaging through the contents of my bag for a tissue, so it was casually asked.

'It's a square we have slept before.'

'Which hotel is it?' I thought of the Russell Hotel, that was on a square.

It took her no more than two breaths to tell me the story. She and her brother had to leave their country, Uzbekistan, when their parents – who were journalists – were arrested. It was arranged very quickly – friends of their parents acquired passports for them and put them on to a plane.

They had been in England for three days but they knew no one here. This country was just a safe place. Now all the money they had could be lifted in the palm of a hand to a stranger in a toilet. So, they were sleeping rough – in the shelter of a square, covered in blankets, on top of some cardboard.

Female Voices Transactional Writing

Tier 2 Vocabulary	
Word	Definition
Empowering	something that makes you feel more confident/in control
Ideology	a set of beliefs and principles
Misogyny	feelings of hatred towards women.
Normative Gender Roles	social expectations prescribing behaviors for different genders
Outdated	belief that is no longer relevant/appropriate
Perpetuate	to cause something to continue
Representation	description/presentation of someone/something in a particular way
Sexism	Unfair treatment based on someone's sex or gender
Stereotype	fixed & oversimplified view of a particular type of person
Stigmatise	viewing someone as deserving disapproval; treat without respect.
Suffragette	woman seeking right to vote through organised protest

PERSUASIVE TECHNIQUES	
Power of three	List 3 things
Emotive language	Powerful language to make the reader feel a particular emotion
Rhetorical question	A question that doesn't expect an answer
Statistics	numbers/percentages to support your argument
Undermine the opposing view	What is the opposite viewpoint and why are they wrong?
Anecdote	A short, real life example to back up your point
Direct address	Use 'you' to talk directly to the reader
Exaggerate	Make everything sound bigger, better, worse than it is
Say it again	Repeat a key phrase or idea

Crafting Sentences	
Some people...; others....	<i>Some people</i> hold the outdated belief that women belong in the kitchen; <i>others</i> have more progressive views.
The more..., the more..., the more...	<i>The more</i> positive representation we see of women on TV, <i>the more</i> we challenge misogyny and outdated stereotypes, <i>the more</i> likely we are to reach a state of gender equality.
Imagine... Imagine... Would you....?	<i>Imagine</i> being stigmatised every day. <i>Imagine</i> being paid less than others doing the same job. <i>Imagine</i> being told you can't achieve your dreams. <i>Would you</i> be happy?
You probably think....; however, ...	<i>You probably think</i> that I know very little about gender equality as a teenage boy; <i>However</i> , I see the struggles my sister faces on a daily basis.
List 3 verbs	Suffragettes had to <i>fight</i> , <i>starve</i> , <i>die</i> to highlight the inequalities faced by women every single day.
Build an idea over 3 sentences using repetition	I have <i>a plan</i> . I have <i>a plan to change the world</i> . <i>A plan to make things better</i> .

Key Writing Skills & Success Criteria

Conjunctions

A conjunction is a word used to connect clauses or sentences.

It's important that we don't **overuse** conjunctions in our writing.

We must carefully choose where to develop ideas using a conjunction.

Example

F - for
A - and/as
N - nor
B - but/because
O - or
Y - yet
S - so

Anecdotes

A short, real-life example to back up your point.

They help to humanise your writing and make your argument believable.

Example

Mia scored a crucial goal for her team; the crowd erupted in cheers.

Question marks

They are used at the end of a direct question.

Questions usually begin with **who, when, where, which, what, how, have, can, do, did, could, would, will.**

Questions that don't expect an answer are called **rhetorical questions** and these are often used in speeches.


Example

"How can we claim to be equal if we treat people differently because of their gender?"

1. I use a wide variety of punctuation accurately. E.g. ? , () ! : ;
2. I use different lengths of sentences to vary the pace and emphasis of my writing. Attempted Clear Crafted
3. I use different ways of opening sentences to make my writing engaging. E.g. starting with an -ly, -ed or -ing word. Attempted Clear Crafted
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Y8 French Term 3

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
ç	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 very, a little bit, quite or too much.

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



Les célébrations

(EK booklet 1)



WOW phrases!

Can you add any of the following to your work?

après avoir mangé... = after having eaten...

après être allé(e)... = after having gone...

j'ai toujours aimé... donc... = I've always liked...therefore...

High frequency words/phrases:

et	and	très	very
aussi	also	assez	quite
mais	but	un peu	a bit
ou	or	vraiment	really
parce que	because	le matin	in the morning
car	because	l'après-midi	in the afternoon
cependant	however	le soir	in the evening
avec	with		
quelquefois	sometimes	oui	yes
tous les jours	every day	non	no

3.1 Comment tu te prépares?

SB3.1 Comment tu te prépares (pour un jour spécial)? <i>(How do you get ready (for a special day)?)</i>			
	je me lève (tôt/tard) <i>(I get up (early/late))</i>		me m'habille <i>(I get dressed)</i>
D'abord <i>(First)</i>	je me douche <i>(I have a shower)</i>	et puis <i>(and then)</i>	je me coiffe <i>(I comb my hair)</i>
Quelquefois <i>(Sometimes)</i>	je me lave le visage <i>(I wash my face)</i>	et après/ensuite <i>(and after)</i>	je me sèche les cheveux <i>(I dry my hair)</i>
Toujours <i>(Always)</i>	je me lave les dents <i>(I clean my teeth)</i>	et finalement <i>(and finally)</i>	je me maquille <i>(I put on make-up)</i>

An example of a reflexive verb in the present tense:

se laver – to have a wash	
je me lave	I have a wash
tu te laves	you have a wash
il/elle se lave	he/she has a wash
on se lave	we have a wash
nous nous lavons	we have a wash
vous vous lavez	you have a wash (plural or polite)
ils/elles se lavent	they have a wash

Reflexive verbs include a *reflexive pronoun* (me, te, se etc). They are often used to describe an action you do to yourself.

3.2 Comment as-tu fêté ton anniversaire?

SB3.2 Comment as-tu fêté ton anniversaire ? / Qu'est-ce que tu as fait ? (How did you celebrate your birthday?) / (What did you do?)			
Samedi dernier (Last Saturday)	j'ai fêté mon anniversaire (I celebrated my birthday)	avec (with)	ma famille (my family) mes copains/copines (my friends)
L'année dernière (Last year)	je suis allé(e) à la fête d'anniversaire de mon frère/ma sœur (I went to my brother's/sister's birthday party)	je suis allé(e) (I went)	
Il y a deux ans (Two years ago)		nous sommes allé(e)s (we went)	
Quand j'avais dix ans (When I was 10 years old)	j'ai passé un jour spécial (I spent a special day)	j'ai (I...)	(beaucoup) dansé (danced (a lot))
Le quinze octobre (On the 15 th October)		nous avons (we...)	regardé un film (watched a film) joué à des jeux (played games) mangé du gâteau (d'anniversaire) (ate (birthday) cake) fait une soirée pyjama (had a pyjama party) bu du coca (drank coke) ouvert mes cadeaux (opened my presents)
			c'était sympa / genial (it was nice / great!)
			au cinéma (to the cinema) à un restaurant (to a restaurant)

An example of a regular -er verb (perfect/past) tense:

Chanter - to sing (past tense)			
j' <u>ai</u> chanté	I sang	nous <u>avons</u> chanté	we sang
tu <u>as</u> chanté	you sang	vous <u>avez</u> chanté	you sang
il/elle/on <u>a</u> chanté	s/he sang we sang	ils/elles <u>ont</u> chanté	they sang

To make a perfect tense verb negative, you put **ne** and **pas** around the form of 'avoir':

e.g. je **n'ai pas** chanté = I didn't sing



Les célébrations

(EK booklet 2)



WOW phrases!

Can you add any of the following to your work?

s'il fait chaud/froid... = if it's hot/cold...

je voudrais acheter... = I would like to buy...

ce serait... = it would be...

High frequency words/phrases:

et	and	très	very
aussi	also	assez	quite
mais	but	un peu	a bit
ou	or	vraiment	really
parce que	because		
car	because	le matin	in the morning
cependant	however	l'après-midi	in the afternoon
avec	with	le soir	in the evening
quelquefois	sometimes	oui	yes
tous les jours	every day	non	no

3.3 Que portes-tu ? / qu'est-ce que tu as porté?

SB3.3	Que portes-tu normalement? <i>(What do you wear normally?)</i>	/	Qu'est-ce que tu as porté? <i>(What did you wear?)</i>
Normalement <i>(Normally)</i>	je porte <i>(I wear)</i>	un <i>(a)</i>	jean (jeans) jogging (tracksuit) pantalon (trousers) pull (jumper) blouson (jacket) tee-shirt (t-shirt) sweat à capuche (hoodie)
Le weekend <i>(At the weekend)</i>	J'aime porter <i>(I like wearing)</i>	une <i>(a)</i>	chemise (shirt) jupe (skirt) robe (dress) veste (blazer) casquette (cap)
Le weekend dernier <i>(Last weekend)</i>	j'ai porté <i>(I wore)</i>	des <i>(some)</i>	baskets (trainers) bottes (boots) chaussures (shoes)
La semaine dernière <i>(Last week)</i>			noir (black) bleu (blue) blanc (white) vert (green) rouge (red) rose (pink) jaune (yellow) marron (brown) violet (purple) orange (orange) gris (grey)
Récemment <i>(Recently)</i>			noire (black) bleue (blue) blanche (white) verte (green) rouge (red) rose (pink) jaune (yellow) marron (brown) violet (purple) orange (orange) grise (grey)

Porter - to wear			
je porte	I wear	nous portons	we wear
tu portes	you wear	vous portez	you wear
il/elle porte	s/he wears	ils/elles portent	they wear
on porte	we wear		

An important irregular verb (present tense)

Avoir - to have			
j'ai = (je + ai)	I have	nous avons	we have
tu as	you have	vous avez	you have
il/elle/on a	s/he has we have	ils/elles ont	they have

3.4 Qu'est-ce que tu vas faire?

SB3.4	Qu'est-ce que tu vas faire pendant un jour spécial? <i>(What are you going to do during a special day?)</i>		
Ce weekend <i>(This weekend)</i>	je vais <i>(I'm going)</i>	aller à <i>(to go to)</i>	un mariage / une fête (surprise) <i>(a wedding) (a (surprise) party)</i>
	tu vas <i>(you're going)</i>	passer <i>(to spend)</i>	un jour spécial avec... <i>(a special day with...)</i>
Le weekend prochain <i>(Next weekend)</i>	il/elle va <i>(he/she is going)</i>	écouter de la musique, danser et chanter <i>(listen to music, dance and sing)</i>	
	nous allons <i>(we are going)</i>	acheter/recevoir <i>(buy/receive)</i>	un cadeau / des cadeaux <i>(a present / some presents)</i>
L'année prochaine <i>(Next year)</i>	vous allez <i>(you (pl) are going)</i>	manger <i>(to eat)</i>	un repas délicieux / du gâteau <i>(a delicious meal) (some cake)</i>
	En juin <i>(In June)</i>	ils/elles vont <i>(they are going)</i>	boire <i>(to drink)</i>
	des boissons gazeuses / de l'eau <i>(fizzy drinks / water)</i>		
	Ce sera cool/amusant/passionnant <i>(It will be cool/fun/exciting)</i>		

Useful phrases for describing a photo

Sur l'image...	In the image...	un homme	a man
Sur la photo...	In the photo...	une femme	a woman
...il y a...	...there is/are...	un enfant	a child
...je peux voir...	...I can see...	un jeune	a young person
...on peut voir...	...you can see...	un garçon	a boy
		une fille	a girl
		une famille	a family
au premier plan	in the foreground	il/elle est...	he/she is...
à l'arrière-plan	in the background	ils/elles sont...	they are...
à la gauche de	on the left of	en train de...	in the process of
à la droite de	on the right of		
près de	near to		
devant	in front of	À mon avis...	In my opinion...
il/elle porte...	he/she is wearing...	...il/elle est...	...he/she is...
il/elle travaille...	he/she is working...	...ils/elles sont...	...they are...
il/elle joue...	he/she is playing...	...heureux/heureuse	...happy
il/elle mange...	he/she is eating...	...triste	...sad
il/elle boit...	he/she is drinking...	...fatigué(e)	...tired
		...en colère	...angry

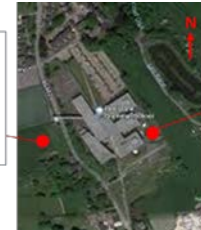
Energy Investigation:



Energy	Energy is a measurable property that enables work, motion, or change. Electricity is one form through which energy is transferred and used.	
Renewable Energy	Energy that comes from sources that will not run out (e.g. sun, wind, water).	
Non-Renewable Energy	Energy that comes from sources that will eventually run out (e.g. coal, oil, gas).	
Wind Power- Energy generated by using the wind to turn turbines and produce electricity..	Advantages: No carbon dioxide emissions, Plentiful in the UK Renewable	Disadvantages: Weather dependent Harmful to wildlife e.g. birds Noise pollution (can be noisy)
Primary Data	Information collected first-hand by a person for a specific purpose, like surveys, experiments, or observations.	
Secondary Data	Information that has already been collected by someone else, such as books, websites, or government reports.	
Hypothesis	A wind turbine will make Penistone Grammar School energy production more sustainable.	
Data Presentation	Showing information in an easy-to-understand way, like tables, charts, or graphs.	
Data Analysis	Examining and interpreting data to find patterns, trends, or conclusions.	

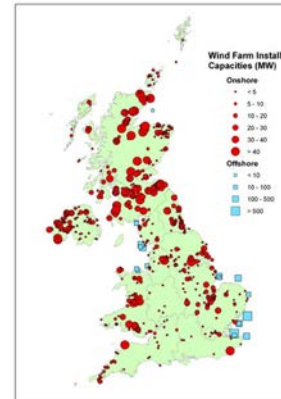
Site 1

Located on open, unused green land, next to the tennis courts and playing fields.



Site 2

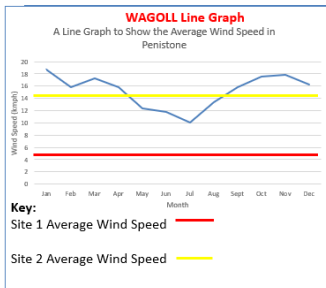
Located close to the south plaza of the school.



Penistone Fact Box:

- Penistone has a population of 12,665 people in 2021. It had a population of 11,322 in 2011 and 10,101 in 2001.
- 8 miles west of Barnsley, 14 miles north-west of Sheffield, and 29 miles east of Manchester.
- Penistone has a single line train service to major destinations, such as Huddersfield, Barnsley & Sheffield.

Energy Investigation:



Manipulate the data:
Ideas could be...

Range: The difference between the largest and smallest values in a set of data.

Mode: The value that appears most often in a set of data.

Average (Mean): The total of all values divided by the number of values.

Labelled and Annotated Photographs









Method	What equipment will you use?	How will you collect the data?
5 On Site Wind Speed Readings	Digital Anemometer	<ol style="list-style-type: none"> 1. Stand facing the direction that the wind is blowing. 2. Turn on the digital anemometer. 3. Make sure it reads zero before you start. 4. Check that the speed is being measured in kilometres per hour (km/h). 5. Hold the anemometer high up in the air. 6. Read and record the highest wind speed shown on the device.
Wind Direction	Compass	<ol style="list-style-type: none"> 1. Hold the compass flat in your hand. 2. Turn the compass so it points north. 3. Use the compass to find the direction the wind is blowing from. 4. Record the prevailing wind direction.
Yearly Energy Use for PGS	Energy Bill from Mrs Robinson	Mrs Robinson will provide the data for the school's energy consumption per year.
Photographs	Phones will be used to take photographs at each site	I will stand in the middle of each site and take a photograph of the site, including as many of the surrounding features as possible.
Field Sketch	Pencil and paper needed to sketch the sites.	<ol style="list-style-type: none"> 1. Sit at your chosen site and place your paper in front of you. 2. Draw a box on the paper with a pencil and ruler to frame your sketch. 3. Use clear line drawings to include the key physical and human features of the landscape. 4. Add clear labels and annotations to give extra detail.
Average Monthly Wind Speed for Penistone	Met Office Data	The average wind speeds will be collated from the Met Office website and provided by my teacher.



Environmental Issues

Key Term	Definition
Environmental issues:	Harmful effects of human activity on the environment. <i>Example: Air pollution, climate change, oil spills.</i>
Rubbish:	Things people throw away because they no longer want them.
Recycling	Turning waste into new materials or objects.
Landfill	A site where rubbish is buried under the ground.
Incineration	Burning waste to destroy it.
Waste management hierarchy	Orders ways to manage waste, prioritising reducing, reusing, then recycling.
Sustainable	Good for the environment, good for local people and long lasting
Global carbon footprint	Total greenhouse gases produced by human activities.
Food miles	Distance food travels from farm to plate, adding greenhouse gases.
Climate change	Long-term shifts in temperature, rainfall, and weather patterns.
Greenhouse gasses	Gases like CO ₂ and methane that trap heat.
Problems with waste	Things that we no longer want ends up buried in landfill

What solutions are there to reducing the causes of environmental issues?	
Solutions to plastic waste	<ol style="list-style-type: none"> 1. Recycle plastic properly 2. Reduce use of single-use plastic 3. Plastic bag tax 4. Reuse plastic containers and bottles.
Ways of reducing our global footprint	<ol style="list-style-type: none"> 1. Reduce energy use at home 2. Eat locally produced food 3. Turn the lights off when a room is not in use 4. Use solar panels

Types of energy:		
	Advantage	Disadvantage
Coal 	Reliable Cheap Plentiful	Produces carbon dioxide, Contributes to climate change, Non-renewable
Oil 	Established fuel source, Efficient, Non-weather dependent	Can lead to oil spills, Produces green house gasses, Non-renewable
Wind 	No carbon dioxide emissions, Plentiful in the UK Renewable	Weather dependent Harmful to wildlife e.g. birds Noise pollution (can be noisy)
Nuclear 	Very reliable, can produce lots of energy	Expensive, Difficult getting rid of toxic waste
Hydro electric power 	Can be used night or day, Renewable	Requires large dams to be built, Expensive
Solar 	Cheap, No carbon dioxide emissions, Renewable	Not suitable everywhere and at night

Avocado Production and Climate Change:

Case study: Food production in Tancitaro, Mexico 		Climate Change: 	
Avocado	The tropical evergreen tree that bears the avocado fruit, native to Mexico and grown elsewhere	Fossil fuel combustion	Burning coal, oil, or gas for energy.
Advantages of avocado production in Mexico	Disadvantages of avocado production in Mexico	Causes of climate change:	<ol style="list-style-type: none"> 1. Burning fossil fuels (<i>coal, oil or natural gas</i>) 2. Deforestation (<i>large scale removal of trees</i>) 3. Agriculture (<i>farming</i>) 4. Transport emissions (<i>cars, planes</i>) 5. Industrial pollution (<i>factories</i>)
Approximately 30,000 people are employed in Tancitaro producing avocados.	Illegal avocado plantations often cut down ancient pine forests in the area to make room. This leads many <i>habitats</i> being destroyed.	Solutions to climate change:	<ol style="list-style-type: none"> 1. Use renewable energy (<i>solar, wind</i>) 2. Plant more trees 3. Improve public transport 4. Increase energy efficiency 5. Reduce meat consumption and waste.
Avocados are worth <i>around £1.2 billion</i> each year to the Mexican economy.	The boom in avocado prices has meant organised criminals have got involved with illegal avocado production	Consequences of climate change:	<ol style="list-style-type: none"> 1. Rising sea levels, causing coastal flooding. 2. More extreme weather, like storms, heatwaves, and droughts. 3. Loss of habitats (<i>a place where an animal lives</i>) and species 4. Reduced crop yields and food shortages. 5. Health problems from heat, pollution, and disease spread.
Avocados are called 'green gold' because they earn more profit per acre than any other crop	Large amounts of wood is needed to pack the avocados for transit, this has led to large areas of local pine forest being cut down to provide shipping crates for the avocados.		

Year Eight History: Topic Two
Protest—part two

Objective: To be able to give examples of protest in British history over time. To be able to explain why protest happens and explain their significance.

	Key dates and events you should know.
1897	The NUWSS was formed calling for women to have the vote. This group became known as the Suffragists.
1903	The WSPU (known as the Suffragettes) was formed by Emmeline Pankhurst. Their slogan was 'deeds not words'.
1918	Women over 30 and men over 21 were given the vote.
1926	General strike—after miners protests about working conditions and pay were ignored, around 3 million men around Britain went on strike as an act of protest and support
1936	Jarrow march—200 men marched to Parliament from the North-East to protest about the poverty and unemployment in the area
1963	The Bristol Bus Boycott began to protest the bus company's ban on employing black and Asian people.
1984	The Miners strike took place— to protest the closures of colliery's around the UK and the loss of hundreds of thousands of jobs.
1990	Poll tax riots took place in London when over 200,000 people gathered to protest against the Poll tax.

Key historical skills covered in this topic:

- Chronology—ordering historical events
- Cause and consequence—giving reasons why events happened and their effects
- Explanation—Sharing your understanding using historical knowledge
- Significance— making judgements about the importance and impact of an historical event.

Key words:

- Election**—where somebody is chosen to represent the people in their area. This is done through voting.
- 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.
- Rights**—A citizens legal, social and moral freedoms, for example the right to an education. These are protected by laws.
- Responsibilities**— the things citizens of a country should do to support society. The expectation that people behave a certain way and will follow the laws of the society they live in.

Home learning project

The Miner's strike

- Investigate the impact of the Miners strike in our local area. This should have both a written part and a creative part. This should focus on independent research and use of evidence.
- The details of this task will be sent to you by your teacher on TEAMS.

- There is one assessment for this topic
- Knowledge questions retrieving key skills e.g. centuries, keywords, key events studied
- The causes of key twentieth century protests
- The causes of and consequences of the Miners strike, 1984.



Overview: What have been the causes of protest since 1900?



Economic—Money has always divided our society. People who feel they work hard and are not fairly paid protest to their employers. Sometimes people will protest about taxes they pay to the government if they feel they are unfair e.g. the Poll tax riots in 1990



Civil Rights—some groups of people will protest to try to improve their position in society, especially if they face discrimination because of race or ethnicity e.g. the Bristol Bus boycott

Political—some groups in society have not had the same access to political representation in the past, for example because of their age or gender. These groups have protested to gain the vote e.g. the Suffragette movement



Employment rights—not all workers have been treated fairly in the past. Some have joined trade unions to improve their rights to a safe working environment or fair pay. If this doesn't work then protests and strikes happen e.g. the General Strike of 1926

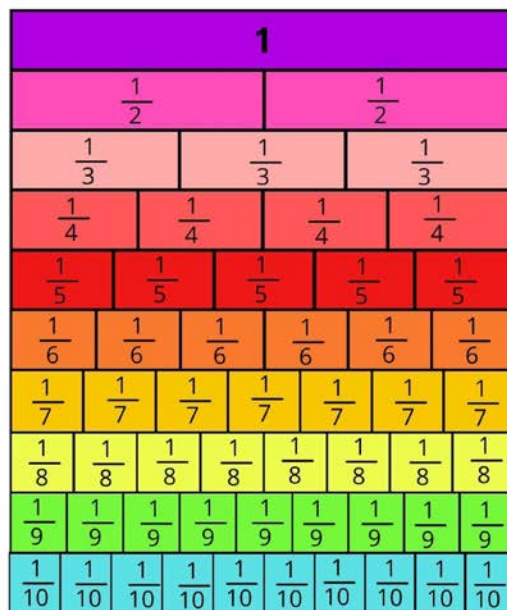


Maths Working Wall

Multiplication Square

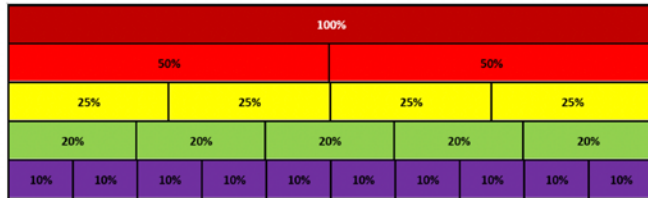
x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Fractions:



Maths Working Wall

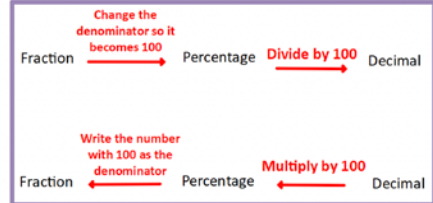
Percentages:



To find...

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

FDP:



Types of number:

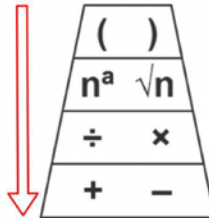
CUBES 1 8 27 64 125

SQUARES 1 4 9 16

25 36 49 64 81 100
121 144 169 196 225

PRIME NUMBERS				
2	3	5	7	11
13	17	19	23	29
31	37	41	43	47
53	59	61	67	71
73	79	83	89	97

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

Averages:

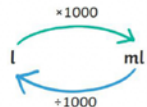
Mode = Most frequent piece of data

Median = Once data is ordered smallest to biggest, the median is the middle

Mean = Add all pieces of data together and divide by how many there are

Range = Difference between the biggest and smallest piece of data

Converting Measurements:



1000ml = 1 litre

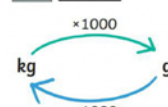
$\frac{1}{10}$ l = 0.1l = 100ml

$\frac{1}{4}$ l = 0.25l = 250ml

$\frac{1}{2}$ l = 0.5l = 500ml

$\frac{3}{4}$ l = 0.75l = 750ml

$\frac{1}{100}$ l = 0.01l = 10ml



1000g = 1kg

$\frac{1}{10}$ kg = 0.1kg = 100g

$\frac{1}{4}$ kg = 0.25kg = 250g

$\frac{1}{2}$ kg = 0.5kg = 500g

$\frac{3}{4}$ kg = 0.75kg = 750g

Index Laws:

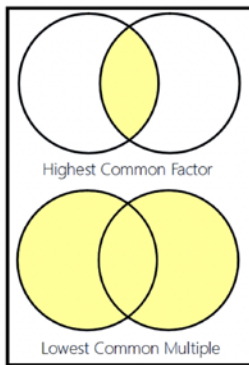
$$a^m \times a^n = a^{m+n}$$

$$a^m \div a^n = a^{m-n}$$

$$(a^m)^n = a^{m \times n}$$

$$a^0 = 1$$

HCF & LCM:



Scatter graphs –

Types of correlation:



Positive



Negative



No Correlation

Graphs:

Equation of a straight line:

$$y = mx + c$$

$$\text{gradient}(m) = \frac{\text{change in } y}{\text{change in } x}$$



1000 metres = 1 kilometre

100cm = 1m

10mm = 1cm

$\frac{1}{10}$ km = 0.1km = 100m

$\frac{1}{4}$ km = 0.25km = 250m

$\frac{1}{2}$ km = 0.5km = 500m

$\frac{3}{4}$ km = 0.75km = 750m

Factors & Multiples:

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

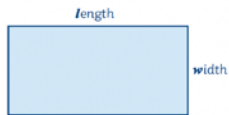
Multiples of 18 : 18, 36, 54, 72, 90, 108...

Factors are numbers that multiply to get that number

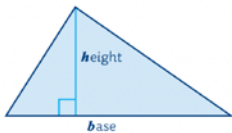
Multiples are numbers in that times table

Maths Working Wall

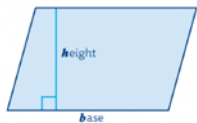
Shape



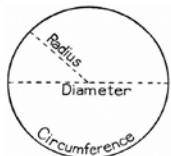
$$\text{Area} = \text{length} \times \text{width}$$



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



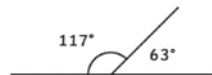
$$\text{Area} = \text{base} \times \text{height}$$



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

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

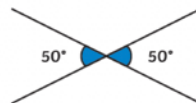
Angles



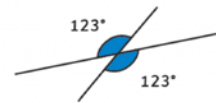
Angles on a straight line always total 180° .



Angles around a point always total 360° .



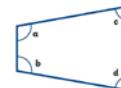
Opposite angles that share a vertex are equal.



Sum of Interior Angles = $(n - 2) \times 180^\circ$



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



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



Pentagon
 $n = 5$
 $(5 - 2) \times 180^\circ = 540^\circ$
 $540^\circ \div 5 = 108^\circ$

Retrieval Core Maths Skills



Skill 1— Percentage of Amounts



Find 36% of 300

$$100\% = 300$$

$$25\% = 75$$

$$10\% = 30$$

$$+ 1\% = 3$$

$$35\% = 105$$

Skill 2— Percentage of Amounts



Find 87% of 250.

$$87 \div 100 = 0.87 \text{ (this is your decimal multiplier)}$$

$$0.87 \times 250 = 217.5$$

Skill 3— Increase/Decrease Percentages

Increase \$50 by 15%

Decrease 75kg by 24%

$$100\% + 15\% = 115\%$$

$$115 \div 100 = 1.15$$

$$1.15 \times \$50 = \$57.50$$

$$100\% - 24\% = 76\%$$

$$76 \div 100 = 0.76$$

$$0.76 \times 75\text{kg} = 57\text{kg}$$

Skill 4— Ratio Problems

Anna and Bill were sharing some sweets in the ratio 5:3.
They have 16 sweets.
How many does each person get?

A

2	2	2	2	2
---	---	---	---	---

 = 10

B

2	2	2
---	---	---

 = 8 $16 \div (5+3) = 2$

Amy gets 10 sweets and Bill gets 8 sweets

Carl and Debbie were sharing some money in the ratio 4:3.
Debbie gets £27.

How much money do they get altogether.

C

9	9	9	9
---	---	---	---

 = £36

D

9	9	9
---	---	---

 = £27 $27 \div 3 = 9$

£36 + £27 = £63
They get £63 altogether.

Ellie and Fran were sharing some money in the ratio 2:7.
Fran gets \$55 more than Ellie.
How much money does Ellie and Fran have?

E

11	11
----	----

 = \$22 \$55

F

11	11	11	11	11	11	11
----	----	----	----	----	----	----

 = \$77

Ellie gets \$22
Fran gets \$77 $55 \div 5 = 11$

Skill 5— Exchange Rates

Frank and Jenny were going on holiday.



a) Frank had £750 to change to Euro's.
How much money will Frank get?

b) Jenny brought back \$300 from America.
She changes the money back to sterling.
How much will she get? Give your answer to the nearest pound.



Retrieval Core Maths Skills



Skill 1— Decimal Multipliers

Find the decimal multiplier for a

- a) 25% increase $100\% + 25\% = 125\%$
 $125 \div 100 = 1.25$
- b) 7% decrease $100\% - 7\% = 93\%$
 $93 \div 100 = 0.93$

Skill 2— Reverse Percentages

Jack bought a coat in a 15% off sale.
 The coat now cost £64.60.
 How much was the coat originally?



$$100\% - 15\% = 85\%$$

$$85 \div 100 = 0.85$$

$$\text{Old } \times \text{ Multiplier} = \text{New}$$

$$\text{Old } \times 0.85 = 64.60$$

$$64.60 \div 0.85 = 76$$

Originally cost **£76**

Skill 3— Repeated Percentage Change

A house was on sale for £135,000. It was reduced in price by 5%. The house did still not sell so was reduced in price by a further 3%. How much is the house now for sale for?

$$\text{Step 1: } £135,000 \times 0.95 = £128,250$$

$$\text{Step 2: } £128,250 \times 0.97 = £124,402.50$$

for sale for **£124,402.50**



Skill 4— Speed Distance Time

Finding the Speed



A car travelled 45km in 32 minutes. How fast did the car travel?

$$\begin{array}{r} \text{Distance : Time} \\ + 30 \quad 45: 30 \quad + 30 \\ \times 60 \quad 1.5 : 1 \quad \times 60 \\ \hline 90: 60 \end{array}$$

Speed = **90km/h**

Finding the Time



A plane travelled at a speed of 403mph. The plane travelled 1347miles. How long was the flight to the nearest minute?

$$\begin{array}{r} \text{Distance : Time} \\ + 403 \quad 403: 60 \quad + 403 \\ \times 1357 \quad 1 : \quad \times 1357 \\ \hline 1357: 202 \end{array}$$

Speed = **202 minutes (3 hours 22 minutes)**

Skill 5— Ratio Problems

Anna and Bill were sharing some sweets in the ratio 5:3.
 They have 16 sweets.
 How many does each person get?

$$\begin{array}{l} \text{A } \boxed{2} \quad \boxed{2} \quad \boxed{2} \quad \boxed{2} \quad \boxed{2} = 10 \\ \text{B } \boxed{2} \quad \boxed{2} \quad \boxed{2} = 8 \end{array} \quad 16 \div (5+3) = 2$$

Amy gets 10 sweets and Bill gets 8 sweets

Carl and Debbie were sharing some money in the ratio 4:3.
 Debbie gets £27.
 How much money do they get altogether.

$$\begin{array}{l} \text{C } \boxed{9} \quad \boxed{9} \quad \boxed{9} \quad \boxed{9} = £36 \\ \text{D } \boxed{9} \quad \boxed{9} \quad \boxed{9} = £27 \end{array} \quad 27 \div 3 = 9$$

£36 + £27 = £63
 They get **£63** altogether.

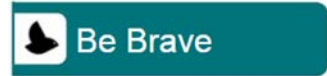
Ellie and Fran were sharing some money in the ratio 2:7.
 Fran gets \$55 more than Ellie.
 How much money does Ellie and Fran have?

$$\begin{array}{l} \text{E } \boxed{11} \quad \boxed{11} = \$22 \\ \text{F } \boxed{11} \quad \boxed{11} \quad \boxed{11} \quad \boxed{11} \quad \boxed{11} \quad \boxed{11} = \$77 \end{array}$$

Ellie gets \$22
 Fran gets \$77

$$55 \div 5 = 11$$

Retrieval Core Maths Skills



Skill 1— Speed, Distance & Time

A car travels 135 miles in 2.5 hours.
What is its speed?

Miles : Minutes

135 : 150

54 miles in 60 minutes

13.5 : 15

=54 mph

54 : 60

Skill 2— Non-calculator percentages

Find 35% of £160 = £56

$$10\% = £16$$

$$10\% = £16$$

$$10\% = £16$$

$$5\% = \frac{£8}{2}$$

Skill 3— % increase & decrease using multipliers

Increase £86 by 17.5%.

$$117.5\% \times £86 = 1.175 \times £86 \\ = £101.05$$

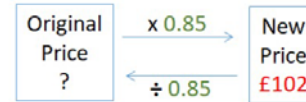
Decrease £56 by 34%

$$66\% \times £56 = 0.66 \times £56 \\ = £36.96$$

Skill 4— Reverse %

A jacket costs £102 after a discount of 15%.
What is the original price of the jacket?

$$100\% - 15\% = 85\% = 0.85$$



$$\text{Original price} \\ = £102 \div 0.85 = £120$$

Skill 5— Repeated % change

Sally invested £220 in a company.
She lost 15% every year!

How much was her investment worth after 3 years?

$$1^{\text{st}} \text{ Year} = 220 \times 0.85$$



$$2^{\text{nd}} \text{ Year} = (220 \times 0.85) \times 0.85$$



$$3^{\text{rd}} \text{ Year} = ((220 \times 0.85) \times 0.85) \times 0.85 = £135.11$$

$$n^{\text{th}} \text{ Year} = 220 \times 0.85^n$$

Formula: $\text{Quantity} \times \text{Multiplier}^{\text{Years}}$

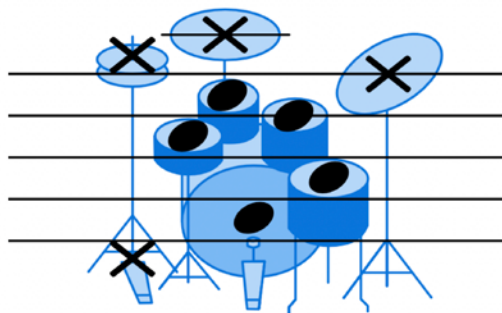
$$220 \times 0.85^3 = 135.1057 \\ = £135.11$$

RHYTHM

Note	Note Value	Rests	Beats	Example in a 4 Beat Bar
Semibreve			4 beats	
Minim			2 beats	
Crotchet			1 beat	
Quaver	 ()		½ beat	
Semiquaver	 ()		¼ beat	





⚡ Basic Drum Notation ⚡

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







Foot Hi-Hat Kick Floor Tom Snare Tom 2 Tom 1 Ride Ride Bell Hi-Hat Open Hi-Hat Crash China Cymbal

Drums – Grade 1

Image	Keyword	Simple Explanation
	Crash Cymbal	Cymbal hit for emphasis, often at start/end of phrases
	Semiquaver	Quarter of a beat note
	Accent	Play the note louder than others
	Open Hi-Hat	Hi-hat played without closing with foot pedal
See above	Closed Hi-Hat	Hi-hat played while closed with foot pedal

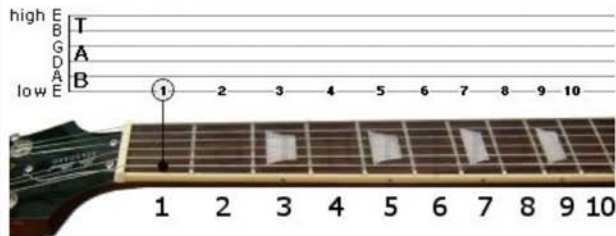
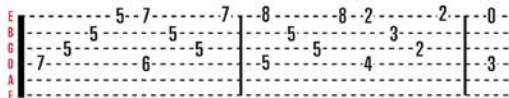
Drums – Grade 2

Image	Keyword	Simple Explanation
	Dotted Note	A note with a dot after it; adds half its value
	Tie	Joins two notes together to make one longer note
	Flam	A grace note played just before the main note
	Ghost Note	Very quiet note, usually on the snare

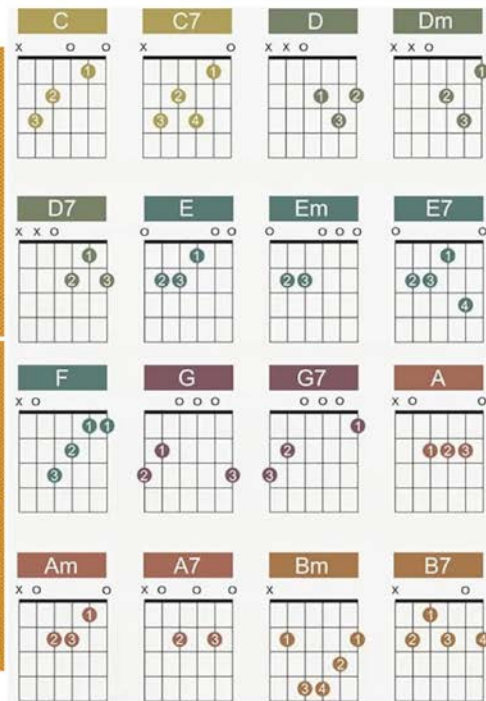
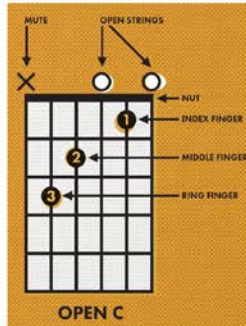
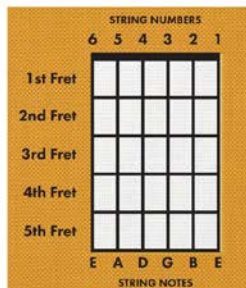
Reading Guitar Tabs

Guitar tabs are read as though you're looking down at your guitar while playing.


- ⚡ Vertical lines represent each note in sequential order.
- ⚡ Horizontal lines represent the string you pick.
- ⚡ Numbers represent the fret you're playing on.




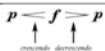
GUITAR CHORDS

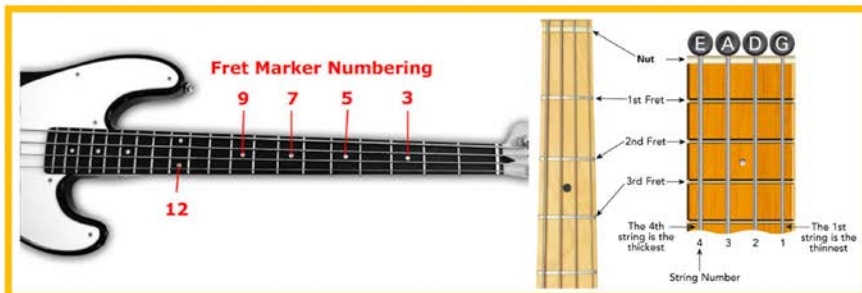


Guitar – Grade 1

Image	Keyword	Simple Explanation
•	Dotted Note	A note with a dot after it; adds half its value
♯	Sharp	Raises a note by a semitone
♭	Flat	Lowers a note by a semitone
♮	Natural	Cancels a sharp or flat
4/4	Time Signature	Tells how many beats in a bar and what kind of note gets one beat
	Slur	Play notes smoothly and connected (legato)
X	Muted Note	Play the string muted (percussive sound)

Guitar – Grade 2

Image	Keyword	Simple Explanation
•	Staccato	Play the note short and detached
	Tie	Joins two notes together to make one longer note
p / f / mf	Dynamics	p = quiet, f = loud, mf = moderately loud
	Crescendo / Decrescendo	Gradually get louder or quieter
:	Repeat Sign	Repeat the section again
PM	Palm Mute	Dampen the strings with the palm while playing
/	Slide	Slide finger up or down the string
h	Hammer-on	Play a note by hammering a finger onto the fretboard
p	Pull-off	Play a note by pulling the finger off the fretboard



⚡ Here is a tip to memorize your bass notes:

closer to your face ↑ #4 **EAT** THICKEST STRING & LOWEST NOTE

#3 **A**

#2 **DEAD**

↓ closer to your legs #1 **GRASSHOPPER** THINNEST STRING & HIGHEST NOTE

Reading TAB

Note	Note Value	Rests	Beats
Semibreve	♩	—	4 beats
Minim	♪	—	2 beats
Crotchet	♫	♪	1 beat
Quaver	♫ (♫)	♪	½ beat
Semiquaver	♫ (♫)	♪	¼ beat

Use the top row of bars to read the **rhythm**

Verse Am

Use the bottom row of bars to read the **frets and strings**

- 0 = Open String (no frets played)
- 1 = 1st Fret
- 2 = 2nd Fret
- 3 = 3rd Fret etc.

Bass – Grade 1

Image	Keyword	Simple Explanation
•.	Dotted Note	A note with a dot after it; adds half its value
♯	Sharp	Raises a note by a semitone
♭	Flat	Lowers a note by a semitone
♮	Natural	Cancels a sharp or flat
4/4	Time Signature	Tells how many beats in a bar and what kind of note gets one beat
h	Hammer-on	Play a note by hammering a finger onto the fretboard
p	Pull-off	Play a note by pulling the finger off the fretboard
/ or \	Slide	Move smoothly from one note to another

Bass – Grade 2

Image	Keyword	Simple Explanation
x	Muted Note	Play a note with a muted sound
()	Ghost Note	Very quiet note, often in parentheses
^	Bend	Push or pull the string to raise the pitch
v	Vibrato	Rapidly vary the pitch of a note
PM	Palm Mute	Mute the string with the palm while playing
tr	Trill	Rapid alternation between two notes
p / f / mf	Dynamics	p = quiet, f = loud, mf = moderately loud
< / >	Crescendo / Diminuendo	Gradually get louder or quieter


Middle C

Remember!
To find a D note, think of a 'Dog in a kennel'.



The two black keys together are the 'kennel', with the Dog inside it!

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


Piano – Grade 1

Image	Keyword	Simple Explanation
•.	Dotted Note	A note with a dot after it; adds half its value
♯	Sharp	Raises a note by a semitone
♭	Flat	Lowers a note by a semitone
♮	Natural	Cancels a sharp or flat
4/4	Time Signature	Tells how many beats in a bar and what kind of note gets one beat
	Slur	Play notes smoothly and connected (legato)




Piano – Grade 2

Image	Keyword	Simple Explanation
•	Staccato	Play the note short and detached
	Legato	Play notes smoothly and connected
	Tie	Joins two notes together to make one longer note
p / f / mf	Dynamics	p = quiet, f = loud, mf = moderately loud
< / >	Crescendo / Diminuendo	Gradually get louder or quieter
:	Repeat Sign	Repeat the section again

Vocals – Grade 1

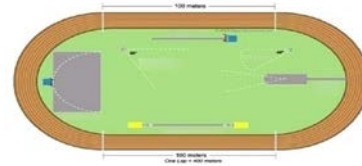
Image	Keyword	Simple Explanation
•.	Dotted Note	A note with a dot after it; adds half its value
♯	Sharp	Raises a note by a semitone
♭	Flat	Lowers a note by a semitone
♮	Natural	Cancels a sharp or flat
4/4	Time Signature	Tells how many beats in a bar and what kind of note gets one beat
	Slur	Sing notes smoothly and connected (legato)

Vocals – Grade 2

Image	Keyword	Simple Explanation
•	Staccato	Sing the note short and detached
	Legato	Sing notes smoothly and connected
	Tie	Joins two notes together to make one longer note
<i>p / f / mf</i>	Dynamics	<i>p</i> = quiet, <i>f</i> = loud, <i>mf</i> = moderately loud
	Crescendo / Decrescendo	Gradually get louder or quieter
:	Repeat Sign	Repeat the section again

Athletics – Y8

Athletics Tier 3 Vocabulary	
Vocabulary	Definition
Athletics	A collection of sporting events that involve competitive running, jumping, throwing.
Field Event	Athletic events that involve jumping and throwing.
Track Event	Athletic events that take place on a running track, including sprints, middle-distance, long-distance races, and relays.
Technique	The way you move your body to perform an athletic activity correctly.
Key attributes Required in Athletics	
Different events in athletics require different attributes and skills	
Speed	The ability to move quickly across the ground or move limbs quickly
Endurance	The capacity to sustain prolonged physical activity.
Pacing	Managing speed and energy levels during longer events like middle-distance running.
Strength	The ability to exert force, crucial for events like throwing and sprinting.
Power	The combination of speed and strength. Important for explosive events like throwing and jumping



A standard athletics track is 400 meters in length. Athletes will run around the track in an anti-clockwise direction

Examples of Athletics Track Events	Examples of Athletics Field Events
100 metre sprint	Long Jump
200 metre sprint	Triple Jump
400 metre sprint	High Jump
800 metre (middle distance)	Shot Put
1500 metre (middle distance)	Javelin
Relay	Discus

Athletics – Y8

Essential Rules

Shot Put

- The shot must be released above the height of the shoulder with one hand.
- The shot must land in the permitted boundaries.
- The performer must exit the circle from the back after the shot has landed.

Javelin

- The javelin must land in the permitted boundaries
- The javelin must be released from over the shoulder
- The tip of the javelin must touch the ground first
- The javelin can only be held with one hand

Discuss

- The discus must land in the permitted boundaries.
- The athlete cannot leave the circle until the discus has landed
- The athlete must exit the circle from the back after the shot has landed.

Long Jump:

- A maximum of a 40-metre run up is allowed followed by a 20cm wide take-off board and sand pit for landing
- Measurement of a jump is from end of take-off board to closest landing point
- A foul jump is when the athletes foot touches beyond the front edge of white board
- Athletes have three or six attempts to jump as far as possible to win the competition

Triple Jump:

- Start the jump phase before or on the take-off board and avoid crossing the foul line
- Must land on same foot (hop phase)) as take-off then opposite foot (step phase) before landing in sand
- Distance is measured from take-off board to closest point of contact in the sand
- Athletes have three or six attempts to jump as far as possible to win the competition

Sprinting:

- Sprinters start at the signal of 'GO' – 'On your marks, Set, Go'
- If a sprinter starts the race before 'Go' a false start is called
- A false starts results in the runner being disqualified
- Stay in the designated lane
- Sprints races include up to 400m (indoor & outdoor)

Middle Distance:

- Standing start without hands touching the ground
- When 'On your marks' is called athletes perform standing start
- The race begins when the gun is fired or 'Go' is said
- 800m – sprinters stay in their lane until the first turn
- 1500m – group start

Relay

- 4X100m - 4 sprinters run 100m each
- 4X400m – 4 sprinters run 400m each
- The runner carrying the baton passes it to the next person
- The baton can only be passed in the changeover zone
- Runners must remain in their designated lane
- A dropped baton leads to disqualification
- A false start leads to disqualification

High Jump:

- The challenge requires you to jump as high as possible vertically without dislodging the horizontal bar which measures 4m in length
- The runway is 15m long and 16m wide
- Take off must be one footed and touching the bar is still a legitimate jump but athletes must clear the landing mat without the bar being dislodged
- Athletes have three attempts to clear a particular height but can pass on a height

Cricket – Y8

Cricket Tier 3 Vocabulary	
<u>Vocabulary</u>	<u>Definition</u>
Batting	The act of hitting the ball with a bat to score runs.
Bowling	The act of delivering the ball to the batsman
Fielding	The act of catching, stopping, or retrieving the ball to prevent runs or get the batsman out.
Over	A set of six legal deliveries bowled by a bowler.
Wicket	The set of three stumps and two bails at each end of the pitch.
Run	The basic unit of scoring in cricket, achieved by the batsmen running between the wickets
Innings	The period in which a team takes its turn to bat and score runs
Boundary	The edge of the playing field. Hitting the ball to the boundary scores four runs, and hitting it over the boundary scores six runs.
Dismissal	The act of getting a batsman out, which can happen in various ways
Umpire	The official who enforces the rules and makes decisions on the field.
Crease	a line on the pitch that helps decide if a batsman is safe or out

Types of Dismissal	
Bowled	When the bowler delivers the ball and it hits the stumps, dislodging the bails
Caught	When a fielder catches the ball on the full after the batsman hits it with the bat.
Run Out	When a fielder hits the stumps with the ball while the batsmen are running between the wickets, and the batsman is out of their crease.
Stumped	When the wicketkeeper removes the bails while the batsman is out of their crease after missing the ball.
LBW	When the ball hits the batsman's leg in line with the stumps, and the umpire judges that it would have hit the stumps.
Hit Wicket	When the batsman accidentally hits the stumps with their bat or body while playing a shot or setting off for a run.

Benefits of Physical Activity and Warm-Ups


Benefits of Physical Activity	
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 our feelings, thoughts and emotions
Social	Social benefits refer to how well people interact with others and form healthy relationships


Benefits of Physical Activity	
Physical	<ul style="list-style-type: none"> Improves heart function – Endurance Reducing the risk of illness and injuries Weight Loss and avoid obesity Ability to complete everyday tasks
Mental	<ul style="list-style-type: none"> Reduces stress and tension Release of feel-good hormones (serotonin) Able to control emotions
Social	<ul style="list-style-type: none"> Opportunities to socialise and make friends Co-operation Team-work

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.

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

L1: Post 16 options	
A levels	A Level is an academic qualification usually taken by students aged 16–18.
T levels	A qualification that prepares 16-19 year old students for skilled employment, apprenticeships, or higher technical study
Apprenticeships	A structured training program combining on-the-job experience with classroom learning
Post 16	the stage of education in the UK that begins after a student turns 16, usually after completing GCSEs
Careers advisor	careers advisor is someone who helps people make decisions about their future jobs and education


L2:Wages and Salaries	
Salary	Salaries are fixed payments throughout the year for work done.
Wages	Wages are hourly or daily payments made for work done. This is variable.
National Insurance	Compulsory payments by employees and employers to provide state assistance for people who are sick, unemployed, or retired - paid by all eligible employees. 
Minimum wage	The lowest amount of money that employers are legally required to pay workers per hour of work.
Student loans	Money borrowed to pay for additional studies, usually at university. This is paid back over time through your salary once you earn enough.

L3: Impact of AI	
Transferrable skills	Skills that can be used across different jobs and industries
Technology	The application of scientific knowledge for practical purposes, especially in industry or the machinery and equipment developed from the application of scientific knowledge 
Artificial Intelligence (AI)	Computer systems capable of performing complex tasks that historically only a human could do, such as reasoning, making decisions, or solving problems.




Citizenship Careers

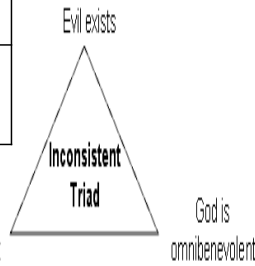


L4: STEM and Gender pay gap	
STEM	Science, Technology, Engineering and Maths
Ada Lovelace	Best known for writing the first computer algorithm.
Aspiration	A hope or ambition of achieving something
Equality Act 2010	Legally protects people from discrimination in the workplace and in wider society, based on 9 protected characteristics, one of which is gender.
Barrier	An obstacle that prevents movement or access.
Equal Pay Act 1720	A landmark piece of UK legislation aimed at eliminating gender-based pay discrimination


L5: Growth and Fixed Mindset in the workplace	
Fixed Mindset	The belief that abilities are innate (born within us) and unchangeable.
Success	The accomplishment of an aim or purpose.
Learning Difficulty	A difficulty in acquiring knowledge or skills, they could affect the learning and use of specific skills such as reading, writing, or mathematics, or be more generalised.
Adversity	A difficult or unpleasant situation.
Challenging	Testing one's abilities, demanding.
Growth Mindset	People who have a growth mindset believe that even if they struggle with certain skills, their abilities aren't set in stone. They think that with work, their skills can improve over time. 
Resilience	Capacity to withstand or recover quickly from or difficulties; toughness

Evil and Suffering

Lesson 1: The Nature of God	
Nature 	Refers to a person's characteristics, attributes and qualities. God is the creator, unique, eternal (was never born and will never die) and self-existent.
Nature of God 	God is the creator, unique, eternal (was never born and will never die) and self-existent (not created by anyone else).
Omnipotent	God is all powerful , no other being comes close. With His power, He created the world within 7 days.
Omnibenevolent	A feature of monotheism - God is all loving .
Trinity 	God is made up in 3 parts – God the father (in heaven), God the son (Jesus) and Holy Spirit (God acting in the universe). Christianity is still monotheistic.
Omniscient	God knows everything that has happened, including the good and the evil. He also knows everything that will happen.



Lesson 2: The Problem of Evil and Suffering	
The problem of evil	If God is both all-powerful and all-loving this should mean that evil would not exist. This is because God should have the power to intervene and stop it.
Inconsistent Triad	The problem of evil can be regarded as this definition. This is because two or more points can be true, but all three statements can't be true at the same time.
Moral evil	Actions committed by humans which causes suffering. For example, murder, terrorism, nuclear weapons and genocide.
Natural evil	Suffering which is not caused by humans. For example, extreme weather such as a tsunami or earthquake.

Lesson 3: Christian Responses to evil	
Sin	An offence against religious or moral law.
Christian beliefs	Christians believe that all humans commit sin. As nobody but God is perfect, they need to seek forgiveness from God.
Original sin	The view all humans are born with original sin as a result of the fall of Adam and Eve. This means that all humans are born with the urge to sin and disobey God. Christians believe people are tempted to sin by the devil.
Job 	This story involves a man receiving various tests from God which made his life difficult. Despite this, Job continued to believe in God. Many Christians believe if you continue to have faith throughout the hard times, you will be rewarded in this life or Heaven.

Evil and Suffering

Lesson 4: Responses to Natural Evil	
Biblical quotes about the nature of suffering	<i>"Blessed are those who suffer for doing what is right, the kingdom of heaven belongs to them." "We glory in our suffering, as we know that suffering produces perseverance, character and hope"</i>
Karma	How individual actions can cause positive or negative results. This may occur in this life or in reincarnation.

**Blessed are those who suffer for doing what is right. The kingdom of heaven belongs to them.
Matthew 5:10**

Lesson 5 and 6: Moral Evil, Jewish Shoah	
The Holocaust	The mass murder of six million Jewish people and millions of others leading up to - and during - World War II.
Nationalism	Supporting the interest of a nation. Sometimes by excluding the interests of other nations.
Shoah	The Hebrew word for 'Holocaust' . The Jewish Holy Book (Torah Scrolls) is written in Hebrew.
Tenakh	A sacred text in Judaism and is often referred to as the Hebrew Bible.
Mitzvot	A system of laws and actions Jews are to perform or to avoid day in and day out. There are 613 in total.

Entrance to Auschwitz



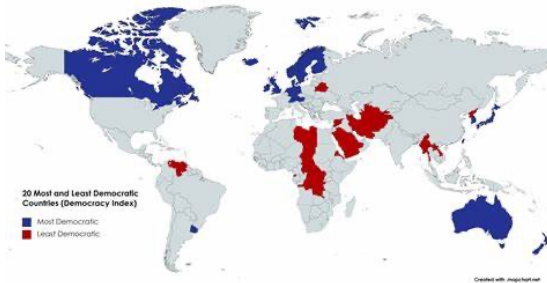
Lesson 7: God on trial	
Judgement	Jews believe that God (Yaweh) judges how good or bad people have been in order to decide their destiny in the afterlife. This is often seen as motivation to behave well and obey all of God's rules.
Free Will	The ability to freely choice your actions and behaviour.



Nagasaki and Hiroshima

Citizenship- Rights and Responsibilities

Lesson 1: Non- Democratic countries	
Non- Democratic	In these governments, people do not elect their rulers & have no right in decision making. Examples include China, North Korea and Saudi Arabia.
Monarchy	A country that has a King or Queen. The UK has a constitutional monarchy.



Lesson 2& 3: Crime in the wider world	
High crime rate countries:	South America, Caribbean and South Africa.
Factors influencing rates of violence:	High poverty rates high amounts of drug trafficking
Other factors influencing crime rates:	Political unrest, government corruption, lack of rule of law

Lesson 4: Crime and County Lines	
Gang statistics	It is estimated at least 46,000 children in England are involved in gang activity.
Possible signs of exploitation	<ul style="list-style-type: none"> • Returning home late, staying out all night or going missing • Increasing drug use, or possession • Being secretive about where they go and who they spend time with • Unexplained absences from school, college, training or work • aggressive behaviour
County lines	A Criminal activity where drug dealers establish networks for the supply and sale of drugs to users in towns and rural areas, using often young and vulnerable people to sell and transport them.
Where can you seek support?	Family Friends Police Parents / carers In an emergency situation, always call 999.

Lesson 5&6: Healthy friendships vs Gangs	
Reasons people may join a gang:	<ul style="list-style-type: none"> • Identity or recognition • Protection • Fellowship and Brotherhood • Intimidation / fear
Manipulation	Control or influence (a person or situation) cleverly or without a morality.
Pressure	The use of persuasion or intimidation to make someone do something.



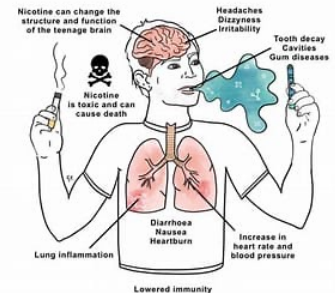
Citizenship- Rights and Responsibilities

Lesson 7: Drugs	
Classification	The basis on which the law deals with drug crime (A/B/C).
Possession	Being found to own/use drugs for personal reasons.
Supply/prod uction	Selling or making drugs for others for financial gains.
Physical and emotional effects on the body:	Anxiety, changes in body temperature, changes to heart rate, confusion, delusions, depression and more.

Lesson 8: Drugs (drugs box)	
Psychoactive	A drug or other substance that affects how the brain works and causes changes in mood, awareness, thoughts, feelings, or behaviour.
New Psychoactive Substances	These substances, together with other substances used as intoxicants (for example, nitrous oxide), are often referred to as 'legal highs'. The chemicals in the substances are often neither legal nor safe for human consumption.

Lesson 9: Smoking and Vaping	
Tobacco Advertising and Promotion Act 2022 (TAPA)	Most forms of tobacco advertising and promotion in the UK were banned following the implementation of this act.
Vaping Statistics	Vaping is on the increase 7.7% of those aged 16 and over said they used e-cigarettes - compared to 6.4% in 2020.
Nicotine	A stimulant drug that speeds up the messages travelling between the brain and body. Products such as cigarettes, cigars and Electronic cigarettes (also known as vapes) can contain nicotine.
"Gateway" substance	A term used to refer to drugs that can open the door to exposure / experimentation with harsher substances.

Class	Possession	Supply, production and importation
A	7 years' custody, an unlimited fine or both	Life sentence, an unlimited fine or both
B	5 years' custody, an unlimited fine or both	14 years' custody, an unlimited fine or both
C	2 years' custody, an unlimited fine or both	14 years' custody, an unlimited fine or both
Psychoactive substances	None, unless you're in prison	7 years' custody, an unlimited fine or both
Temporary class drugs	None, but the police can take away the drug	14 years' custody, an unlimited fine or both



Types of pathogen

List the types of pathogen and how they cause disease

1. **Bacteria** – enter the body and **multiply rapidly**. Are **living cells** that produces toxins which make us feel ill.
2. **Virus** – are not living. **Infect our cells and reproduce inside them**. The cells burst open and cause us to feel ill.
3. **Fungi** – Are **thread like structures** that infect people and plants.

Disease transmission

Complete the table below

Transmission route	Example of pathogen
Airborne droplets	Influenza
Contaminated food	Salmonella
Direct contact	Fungi – athlete's foot
Contaminated water	Cholera
Blood barrier (unborn babies)	HIV

Defence against disease

Complete the table below

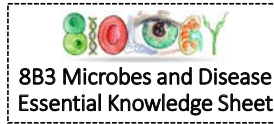
Feature	How it protects us from disease
Tears	Antibacterial properties
Stomach	Contains acid to kill microorganisms
Hairs in nose	Trap microorganisms
Cilia	Wafts the microorganisms away from the respiratory system
Skin	Contains glands which release acid to protect us

Growing microbes

Fill in the blanks using the words below

1. Use **aseptic technique** to culture microbes.
2. Wipe down all work surfaces with **disinfectant**.
3. Light a **Bunsen burner** to create a clear zone.
4. Transfer the **bacteria** onto an agar plate.
5. Lift the lid **slightly** so that the plate isn't contaminated with other bacteria.
6. Seal the **lid** of the petri dish and incubate the bacteria at **25°C** for 3 days.

25°C bacteria slightly 3 lid
aseptic technique Bunsen burner



Immune System

Describe the job of each type of white blood cell

1. **Lymphocytes** Produce antibodies specific to the antigen on the pathogen. Target the cell for destruction.
2. The white blood cell engulfs the pathogen. It digests it and uses the products inside the body.
3. White blood cells may produce antibodies which bind to toxins produced by the microbe.

Vaccines

Complete the boxes to give the pros and cons of having a vaccine

Pros	Cons
<ul style="list-style-type: none"> • Cannot die from some diseases • Cannot pass on diseases to others • May only feel ill for a short period of time • Prevention is better than cure – cheaper for NHS in long run 	<ul style="list-style-type: none"> • May cause some side effects • May have a phobia of needles • Can feel ill when you first have the vaccine • Pathogens can mutate so vaccines can't be made or all diseases

Immunity

Explain the difference in antibody production before and after a vaccination.

When given a vaccine the number of antibodies in the blood stream increase as the white blood cells are stimulated to produce them against the pathogen. Some of the antibodies are stored in memory cells. When you come into contact with the pathogen your antibodies are produced at a faster rate to kill the pathogen. They also remain in the blood for longer.

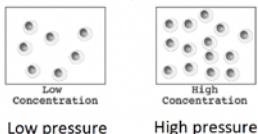
Antibiotics

Fill in the gaps

Antibiotics only work on **bacteria**. They do not kill **viruses** as these pathogens live inside our own cells. We can test antibiotics on bacterial plates and look at their clear zone. The **bigger** the clear zone indicates the better the antibiotic. Some pathogens are resistant to **antibiotics**. Some pathogens mutate and which means they are not killed when treated with certain antibiotics. Patients may need to go back to the doctors to get another type of **antibiotic**. MRSA is an example of a superbug that is resistant to multiple types of antibiotic.

Concentration and pressure

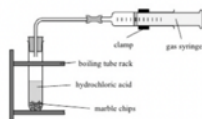
Draw a diagram showing particles in a high and in a low concentration or pressure.



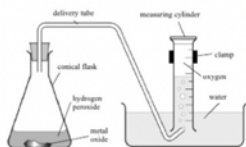
Measuring the rate of reaction

Draw a labelled diagram showing how we could collect and measure the gas volume in a chemical reaction.

1. gas syringe



2. upturned measuring cylinder or burette



What is a catalyst?

A catalyst is a substance that changes the rate of a reaction without being chemically changed or used up.

Factors that affect the rate of reaction

List 4 factors that affect the rate of reaction

1. temperature
2. Surface area
3. concentration
4. catalyst



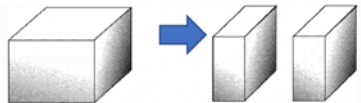
8C3 Rate Essential Knowledge Sheet

How can we calculate the rate of reaction?

Amount of product made or amount of reactant used up divided by time.

Surface area

Which has the highest surface area? →

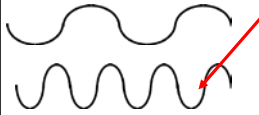


Temperature

Explain why increasing the temperature increases the rate of a chemical reaction

The higher the temperature, the more kinetic energy the particles have, resulting in more frequent collisions. A greater % or proportion of collisions will be successful/effective, because more of the reactant particles have exceeded the minimum energy barrier [activation energy].

Which one of these waves would have the highest pitch?



Which one of these waves would have the loudest volume?



How we hear sound

- Vibrations of air **particles** are funneled into the ear through the **pinna**
- This causes the **ear drum** to vibrate. These vibrations are passed to the **bones** of the middle ear.
- Then the tiny **hairs** in the cochlea vibrate. The hairs are connected to **nerve** cells that carry the signal to the **brain** where it is processed as sound.

Words : Hairs, ear drum, particles, hairs, brain, bones

Number these in order of the speed that they will travel, fastest first:

Water waves on water **3**

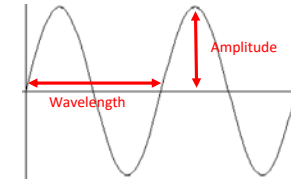
Light waves **1**

Sound Waves **2**

Label the ear diagram with the following:

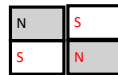
Pinna	Hammer
Anvil	Cochlea
Stirrup	
Semi-circular canals	
Ear drum	
Eustachian tube	

Add the following to the diagram: Wavelength, Amplitude



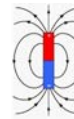
8P3—Magnetism & Sound

If two identical magnets attract each other, label the poles.



Draw the magnetic field on the bar magnet.

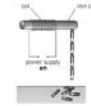
Where is the magnetic field strongest?
At the poles



What materials will stick to the magnet?

- Iron
- Nickel
- Cobalt

An electromagnet is made when a wire carrying an electric current is wrapped around an iron nail.



What is an advantage of using an electromagnet rather than a permanent magnet?

It can be switched off and made stronger and weaker.

How could the electromagnet be made stronger?

Add more turns in the coil

Increase the diameter of the wire

Increase the diameter of the core

Change the shape of the core to a horseshoe

The frequency of sound is measured in **Hertz (Hz)**

The range of human hearing is about ...**20Hz**. To about **20,000Hz**.

Sounds that have a higher frequency than this are known as ...**ultrasound**...

Science Vocabulary



8B3

Word	Definition
Microbe	A small living thing
Aseptic	A method to prevent contamination
Pathogen	A microbe that causes disease e.g. bacteria
Superbug	A bacteria that is resistant to antibiotics
Mucus	Slimy substance that traps pathogens
Ciliated epithelial cell	A type of cell which has little hairs on its surface
White blood cell	Cell which kills pathogens
Antibody	Protein made by white blood cells
Antigen	Shape on the surface of a pathogen
Vaccine	A dead pathogen which stimulates antibody production
Immunity	Being resistant to a particular disease
Antibiotic	Drug which kills bacteria
Antibiotic resistance	A bacteria which cannot be killed by antibiotics

8C3

Word	Definition
Rate	How fast a reaction takes place
Balance	Used to measure the mass of a substance
Gas Syringe	Used to measure the volume of a gas
Measuring Cylinder	Used to measure the volume of a liquid or gas
Collision	When two particles bump into each other
Frequency	How often something happens
Temperature	The average kinetic energy of a particle (measured in °C)
Concentration	The number of particles dissolved in a given volume.
Surface Area	Total area of all the outer surfaces of a solid.
Catalyst	Speeds up a reaction without being used up.
Industry	Where chemicals are made in a factory for everyday life.

8P3

Word	Definition
Attraction (magnetic)	Pulling together (caused by magnetism, north to south)
Bar magnet	A bar of magnetic material that does not change its magnetism quickly
Coil/turns	A coil is a wire twisted into a spiral. A turn is one full circle of the spiral
Compass	A device that uses a magnet to show the direction towards north
Electromagnet	An (iron) core wrapped in a coil of wire carrying an electrical current
Frequency	Number of waves passing a point per second. The pitch of a sound wave
Magnetic field	Area around a magnet where magnetic effects can be seen
Magnetic material	One of three metals (Iron, cobalt, nickel) that can respond to magnetism
Medium	Material a wave travels through
Repulsion (magnetic)	Pushing apart (caused by magnetism, north to north, south to south)
Ultrasound	Sound with frequency higher than can be heard by humans (more than 20000Hz)
Vacuum	An area that is completely empty. Sound cannot travel through it
Volume (of a wave)	How loud or quiet a sound is. Controlled by the amplitude of a sound wave

Y8 Spanish Term 3

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		



Celebraciones

(EK booklet 1)



WOW phrases!

Can you add any of the following to your work?

Suelo (+ infin) = I tend
 e.g. **suelo celebrar...** = I tend to celebrate...
suelo levantarme... = I tend to get up...

Siempre he querido (+ infin) = I have always wanted
 e.g. **siempre he querido hacer...** = I have always wanted to do/make

3.1 ¿Cómo te preparas?

SB3.1 ¿Cómo te preparas (para un día especial)? (How do you get ready (for a special day)?)			
	me despierto (temprano/tarde) (I wake up (early/late))		me visto (I get dressed)
Primero (First)	me levanto (enseguida) (I get up (straight away))	y luego (and then)	me peino (I comb my hair)
A veces (Sometimes)	me ducho o me baño (I have a shower or I have a bath)	y después (and after)	me seco el pelo / me aliso el pelo (I dry my hair / I straighten my hair)
Siempre (Always)	me lavo la cara (I wash my face)	y finalmente (and finally)	me maquillo (I put on make-up)
	me lavo los dientes (I clean my teeth)	pero nunca (but never)	me pongo gomina (I put hair gel on)

High frequency words/phrases:

y	and	bastante	quite
también	also	muy	very
o	or	un poco	a bit
pero	but		
sin embargo	however		
porque	because		
ya que	because		
aunque	although	por la mañana	in the morning
		por la tarde	in the afternoon
		por la noche	in the evening
mucho/a/os/as	a lot of	cada día	every day
con	with		

An example of a reflexive verb in the present tense:

levantarse = to get (yourself) up	
me levanto	I get up
te levantas	you get up
se levanta	he/she gets up
nos levantamos	we get up
os levantáis	you (plural) get up
se levantan	they get up

Reflexive verbs include a *reflexive pronoun* (me, te, se etc). They are often used to describe an action you do to yourself.

3.2 ¿Cómo fue tu cumpleaños?

SB3.2	¿Cómo fue tu cumpleaños? <i>(What was your birthday like?)</i>	¿Qué hiciste? <i>(What did you do?)</i>	
Este año <i>(This year)</i>	celebré mi cumpleaños <i>(I celebrated my birthday)</i>	con mi familia <i>(with (my family))</i> mis amigos <i>(my friends)</i>	¡Fue alucinante / increíble! <i>(It was amazing / incredible!)</i>
El año pasado <i>(Last year)</i>		fui / fuimos <i>(I went / we went)</i>	al <u>parque de atracciones</u> <i>(to the theme park)</i> a un restaurante <i>(to a restaurant)</i>
El <u>dieciocho de octubre</u> <i>(On the 18th of October)</i>		hice / hicimos <i>(I did / we did)</i>	una fiesta <i>(a party)</i>
Hace <u>dos</u> años <i>(Two years ago)</i>		vi / vimos <i>(I watched / we watched)</i>	una película <i>(a film)</i>
Quando tenía <u>diez</u> años <i>(When I was 10 years old)</i>		comí / comimos <i>(I ate / we ate)</i>	tarta de cumpleaños / caramelos <i>(birthday cake sweets)</i>
		recibí <i>(I received)</i>	regalos/juguetes/ropa <i>(presents/toys/clothes)</i>
	invité <i>(I invited)</i>	a mis amigos a pasar la noche en mi casa <i>(my friends to a sleepover at my house)</i>	

Examples of regular verbs in the past tense:

Bailar - to dance			
bailé	I danced	bailamos	we danced
bailaste	you danced	bailasteis	you danced
bailó	s/he danced	bailaron	they danced

Beber - to drink			
bebí	I drank	bebimos	we drank
bebiste	you drank	bebisteis	you drank
bebió	s/he drank	bebieron	they drank

Salir - to go out			
salí	I went out	salimos	we went out
saliste	you went out	salisteis	you went out
salíó	s/he went out	salieron	they went out

↙ The pattern for -er and -ir verbs is the same! ↘



Celebraciones

(EK booklet 2)



WOW phrases!

Can you add any of the following to your work?

Si hace buen/mal tiempo llevo = If it's good/bad weather I wear

Si podiera me gustaría llevar = If I could I would like to wear

Si tuviera bastante dinero me gustaría comprar
= If I had enough money I would like to buy

High frequency words/phrases:

y	and	bastante	quite
también	also	muy	very
o	or	un poco	a bit
pero	but		
sin embargo	however		
porque	because	por la mañana	in the morning
ya que	because	por la tarde	in the afternoon
aunque	although	por la noche	in the evening
		cada día	every day
mucho/a/os/as	a lot of		
con	with		

3.3 ¿Qué llevas? ¿Qué vas a llevar?

SB3.3	¿Qué llevas? (What do you wear?)	¿Qué vas a llevar? (What are you going to wear?)	
Normalmente (Normally)	llevo (I wear)	un jersey (jumper) vestido (dress) traje (suit)	negro (black) blanco (white) rojo (red) amarillo (yellow) morado (purple) de muchos colores (multi-coloured)
		una camiseta (t-shirt) camisa (shirt) falda (skirt) sudadera (sweatshirt) gorra (cap)	negro (black) * rosa (pink) verde (green) * naranja (orange) azul (blue) gris (grey) marrón (brown)
Los fines de semana (At weekends)			
Esta noche (Tonight)	voy a llevar (I'm going to wear)	unos pantalones (trousers) vaqueros (jeans) zapatos (shoes)	negros (black) * rosas (pink) verdes (green) * naranjas (orange) azules (blue) grises (grey) marrones (brown)
Este fin de semana (This weekend)	me gustaría llevar (I would like to wear)		
El sábado (On Saturday)		unos botas (boots) zapatillas (de deporte) (trainers)	negros (black)
Voy a ir a una fiesta (I'm going to go to a party)			

llevar - to wear			
llevo	I wear	llevamos	we wear
llevas	you wear	lleváis	you wear
lleva	s/he wears	llevan	they wear

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

3.4 ¿Qué vas a hacer?

SB3.4	¿Qué vas a hacer? (What are you going to do?)		
Este fin de semana (This weekend)	voy a (I'm going)	hacer (to make/do)	una fiesta sorpresa / una fiesta de cumpleaños (a surprise party / a birthday party)
	vas a (you're going)	decorar (to decorate)	la casa con muchos globos (the house with lots of balloons)
El fin de semana que viene (Next weekend)	va a (he/she is going)	escuchar música, bailar y cantar (listen to music, dance and sing)	
	vamos a (we're going)	comprar (to buy)	comida y bebidas / decoraciones / unas velas (food and drinks / decorations / some candles)
El seis de mayo (On the 6 th of May)	vais a (you're (pl) going)	comer (to eat)	paella / pizza / hamburguesas / helados (paella / pizza / burgers / icecream)
	van a (they are going)	beber (to drink)	limonada / refrescos (lemonade / fizzy drinks)
		pasarlo bien/mal (to have a good/bad time)	
		va a ser guay/divertido/emocionante (it is going to be cool/fun/exciting)	

Useful phrases for describing a photo

En la foto... ...hay... ...veo...	In the photo... ...there is/are... ...I see...	(cuatro) personas dos hombres una mujer tres mujeres un chico/una chica un niño/una niña una familia unos amigos mucha gente	(four) people two men a woman three women a boy/a girl a child a family some friends lots of people
en el fondo en el centro a la izquierda a la derecha cerca (de) delante (de)	at the back in the middle on the left on the right near (to) in front (of)		
están en... ...una casa ...una plaza	they are in... ... a house ... a square	En mi opinión... Pienso que... ...están... ...contentos/as ...tristes ...cansados/as ...preocupados/as	In my opinion... I think that... ...they are... ...happy ...sad ...tired ...worried
hace sol hace calor hace buen tiempo hace mal tiempo	it is sunny it is hot it is good weather it is bad weather		

Aim High

Be Determined

Be Kind

Be Supportive

Be Proud



PENISTONE GRAMMAR SCHOOL

Achieving Excellence through a Values-Driven Education