

April - June

Year 7

**KNOWLEDGEABLE
AND EXPERT
LEARNERS**



Self
Quizzing

Flash
Cards

Mind
Maps

Brain
Dumps

enjoylearn**succeed**

INDEPENDENT LEARNING BOOKLET

NAME:

TUTOR GROUP:

CONTENTS

- Using Class Charts Instructions
- Accessing SENECA
- Independent Learning log
- Brain-dump instructions
- Subject Knowledge Organisers

You will need an A4 application booklet.

HOMEWORK:

- Your teacher will set specific tasks, with a deadline, on Class Charts
- Instructions for your homework and how to access it are in this booklet
- You must complete and hand in the work by the deadline

INDEPENDENT LEARNING EXPECTATIONS AND REWARDS:

- You should complete 1 task per day, 5 days a week.
- The tasks will be set on Class Charts to help you keep track of what you need to do.
- You must bring your ILB and application book to school every day.
- You can choose the subject/topic you want to work on.
- Your tutor will check your ILB regularly to see how you are getting on.
- You will be rewarded for going above and beyond expectations.

SUBJECT KNOWLEDGE ORGANISERS CONTENTS

Art	8
Computer Science	9-10
Product design	11
Food Technology	12
Textiles	13
Performing Arts	14-15
English	16-17
French	18-19
Geography	20-21
German	22-23
History	24
Maths	25-26
Music	27-28
RE	29
Science	30-34
PSHCE	35-36

USING CLASS CHARTS



All of your homework will be set by your teachers using the Class Charts System. You should check Class Charts every day to make sure you are up to date, and that you meet all your deadlines. Below, shows you how to log on and track your homework.

Logging in to Class Charts

1. Enter your email address and password into the fields provided

Access code *
Your access code

Please enter the access code supplied by your teacher.

Remember me

2. Click on the Log in button



3. Enter your date of birth if prompted and click on the OK button

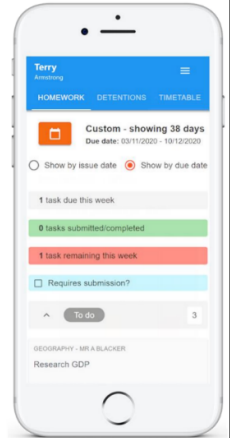
Date of birth

Please enter your date of birth below.

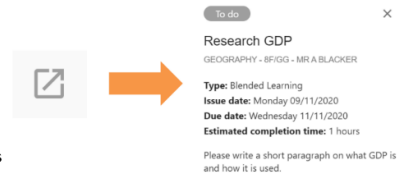
Date of Birth
12/06/2009

Homework

- Select the homework tab on our account.
- This will display a list of the homework tasks which you have been given.
- To change the date range for displayed homework tasks, click on the orange Date button.
- To display tasks in the order they are expected to be handed in, click on the Due date button.
- To mark a homework task as completed, view the homework task of your choice in more detail and tick the Completed checkbox.



To view a homework task in more detail, click on the expand icon in the bottom right hand corner of the homework tile. A popup will appear that contains the a description of the homework task, the estimated completion time and any links or attachments that may have been included.



Keeping track of homework

To track your homework use the three banners above the homework status. This shows the the number of homework tasks that are due that week, how many of those tasks you have completed and how many tasks you still need to complete.

1 task due this week

0 tasks submitted/completed

1 task remaining this week

To only see homework tasks that require an attachment submission, tick the checkbox labelled Requires submission.

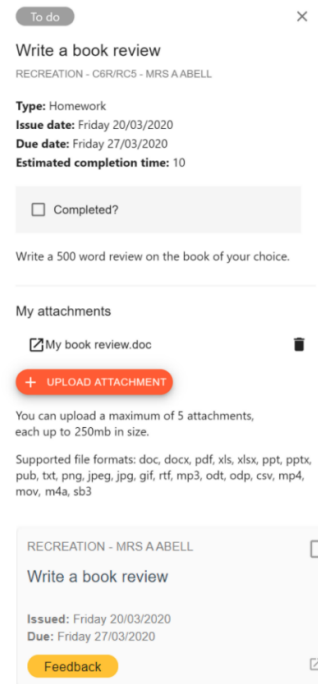
Requires submission?

If you are viewing the Homework tab via a desktop or laptop, expanding a homework status category will display a table overview of each homework task for the selected date range.

To do 3								
Homework	Teacher	Lesson	Issued	Due	Estimated time	Type	Feedback	
<input checked="" type="checkbox"/>	Research GDP	Mr A Blacker	8F/Gg	Monday 09/11/2020	Wednesday 11/11/2020	1 hours	Blended Learning	
<input checked="" type="checkbox"/>	Write a soliloquy	Mr J Kato	8y/En2	Tuesday 10/11/2020	Tuesday 17/11/2020	30 minutes	Homework	
<input checked="" type="checkbox"/>	Create a poster on French food	Mrs A Abell	7YEL/Fr	Friday 06/11/2020	Thursday 19/11/2020	45 minutes	Homework	<input type="button" value="Feedback"/>

Homework attachment submissions

For certain homework tasks, you may be asked by your teacher to upload your work as an attachment. When viewing a homework task in more detail, you will see the Upload attachment button if your teacher is expecting your work to be uploaded. To submit a homework attachment, click on the Upload attachment button and select the files of your choice. Successfully uploaded files will then appear above the button



If your teacher leaves feedback on one of your homework attachments, you will see a Feedback icon appear on the associated homework task.

To view the feedback, click on the expand icon in the bottom right hand corner of the homework tile. Your teacher's feedback will appear directly below your homework attachment

To do

Completed

Submitted late

Not submitted

Submitted

To-Do: These are homework tasks that you need to complete. Once you have completed them, tick the checkbox

Completed: These are homework tasks that you have ticked as completed but have not been marked by your teacher

Late: These are homework tasks that have been handed in past the deadline.

Not submitted: These are homework tasks that were not handed in on time.

Submitted: These are homework tasks that have been handed in on time.

HOW TO ACCESS SENECA



Seneca learning is a free online platform that will help you revise for all your subjects.

1.

Go to
<https://senecalearning.com/en-GB/>

2.

Click 'Log In' at the top right hand corner.



Login

Sign up

3.

Select 'Continue with Microsoft'.



Continue with Microsoft

4.

Enter your school email and password.

5.

Select the course(s) you want to work on

If you need any help accessing SENECA please speak to your class teacher, or Miss Holmes.

You can also scan this QR code for a video walkthrough of how to log in as a student

SCAN HERE



INDEPENDENT LEARNING LOG



BRAIN DUMPS

Expectation this ½ term: Brain dumps

Complete 1 brain dump a day

- This should be done once a day , for approximately 20 minutes.
- All your Brain dumps should be evidenced in your application booklet.
- Use this log to track how what subjects you have done (see example)

Week Beginning	Monday	Tuesday	Wednesday	Thursday	Friday
EXAMPLE:	English: KG1 & 2	Science: KG2 & 4	History: KG4 & 5	PSHCE: KG 1 & 2	Drama: KG 1 & 3
13/04/26					
ILB CHECK (10 Brain Dumps) 20/04/2026					
27/04/2026					
04/05/2026					
ILB CHECK (30 Brain Dumps) 11/05/2026					
18/05/2026					

BRAIN DUMPS- INSTRUCTIONS

1.



Identify knowledge

Select a topic you wish to cover.

Do you have the resources you need?

Knowledge organisers

Textbooks

Lesson materials

Set your page up and make sure you have the correct equipment

2.



Write it down

Write down everything you can remember about that topic. (with no prompts)

Give yourself a maximum of 5 minutes. This is Quick recall.

3.



Check it

Once complete and you cannot remember any more use your knowledge organiser to check what you have written down.

Use green pen to tick anything correct, or add any information you have missed.

4.



Review

Use your brain dump to:

1 - Identify your strengths

2 - Identify the areas you need to revise

3 - Write down any key areas you missed

4 - Address how you will move forward on points 2 and 3.

5.



Revisit it

Keep your brain dump safe and revisit it.

Use your brain dump to **RAG** rate your knowledge organiser. This will help you prioritise your revision in the future.

Knowledge Group 1: Mask Designs

1	Mask	A covering for all or part of the face, worn as a disguise, or to amuse or frighten others.
2	Positive space	Refers to the subject or areas of interest in an artwork, such as a person's face or figure in a portrait.
3	Negative space	Negative space is the space around and between the subject of an image.

Knowledge Group 2: Relief Sculpture

1	Relief Sculpture	Sculpture in which images are slightly raised off a flat background (like a piece of cardboard).
2	Cardboard construction	The action of building a sculptural form by assembling pieces of cardboard.
3	Quirky (base)	Having or characterised by peculiar or unexpected traits or aspects.
4	Oil Pastel	Vibrant, creamy sticks made of pigment mixed with a non-drying oil and wax binder, combining aspects of crayons and paints.

Knowledge Group 3: Artists/Periods

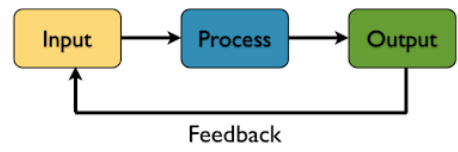
1	Kimmy Cantrell	Self-taught ceramicist from Atlanta who uses asymmetry to challenge definitions of beauty.
2	Pablo Picasso's African Period	A period from 1906-1909 when Picasso painted in a style which was strongly influenced by African sculpture, particularly traditional African masks.

Algorithms Basics

Algorithm	An algorithm is a step by step set of rules or instructions that need to be followed to solve a problem.
Problem Solving	Problem solving is identifying a problem, analysing it, and finding the most effective solution.
Variable	A variable is a stored value that can be changed whilst the program is running.
Flowchart	A graphical way of showing an algorithm.

Input, Process, Output Model

IPO Model	The IPO model is a widely used approach in systems analysis and software engineering.
Input	Inputs provide or give data to the computer.
Process	Processes are a series of actions or steps taken to achieve a particular end.
Output	Outputs information produced by a computer process.



Key Vocabulary

Sequence	Sequence is the order in which instructions are processed.
Selection	Selection is a decision or choice within your computer program.
Iteration	Iteration is when you repeat a set of instructions.
Comparison	> Greater than < Less than == Equal to != Not equal to
Linear Search	Linear searches check each item in order from the start of the list.
Bubble Sort	Bubble sorts compare pairs of items in a list.

Computational Thinking - 4 Steps

Decomposition	Decomposition is breaking down a large problem into smaller problems.
Pattern Recognition	Pattern Recognition involves finding similarities or patterns among decomposed problems.
Abstraction	Abstraction is the process of removing unnecessary detail from a problem and picking out the important bits.
Algorithmic Thinking	Algorithmic Thinking is a logical way of getting from the problem to the solution.

Data Types and Calculation Symbols

Integer	Used to represent a whole number.
Real / Float	A number with a fractional part or a decimal.
String	Used to represent text or a collection of characters.
Calculate	+ Addition - Subtraction * Multiply / Divide

Flowchart Symbols

Start / End	
Input / Output	
Process / Assign	
Decision / IF	
Direction of Data Flow	

Flowchart Symbols

	To begin and end the flowchart.
	To calculate the result of a user input.
	To enter data or to display the result.
	To make choices based on some data.

Basic Turtle Commands

Command	What does it do?
Turtle.Show()	Show Turtle.
Turtle.Hide()	Hide Turtle.
Turtle.Speed = 8	Set speed to 8.
Turtle Move(100)	Move 100 pixels.
Turtle.Turn(90)	Turn 90°
Turtle.Angle = 180	Turn to 180°
Turtle.PenUp()	Turtle stops drawing.
Turtle.PenDown()	Turtle start to draw.

10

Repetition and Tessellations

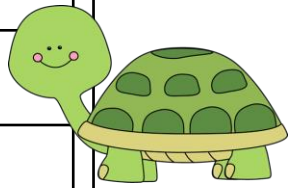
Repetition	FOR loops are one way to repeat sections of code. <pre>For x = 1 To 360 Turtle.Move(1) Turtle.Turn(360/360) EndFor</pre>
Tessellation	A tessellation is repeating a pattern without leaving any gaps. There are two types of tessellations regular and semi regular. Can you find out what they are?

Graphics Window Commands








Command	What does it do?
BrushColor = Red	Changes fill colour to Red.
FillRectangle(,, ,)	Draw and fill a rectangle
FillTriangle(,,,,)	Draw and fill a triangle
FillEllipse(,, ,)	Draw and fill a circle

Key Vocabulary

Algorithm	A step by step sequence for how to solve a problem.
Flowchart	A flowchart is a step by step method to solving a problem.
Intellisense	This is the area of Small Basic where hints and tips and displayed while we write code.
Cartesian Co-ordinates	Location of a fixed point to state how far along and how far up it is.
Iteration	Iteration is the process of looping or repeating sections of a program



1. Process; Tools & Equipment

1	Coping Saw 	Hand held tool used to cut intricate shapes in woodworking
2	Tenon Saw 	Used to cut straight lines in wood, but not deep cuts due to the 'back' on the top of the blade.
3	Hegner Saw 	A piece of machinery used to cut intricate curves and joints
4	Try Square 	Used to check and mark right angles in constructional work
5	File 	Hardened steel in the form of a bar or rod with many small cutting edges raised on its surfaces; used for smoothing or shaping objects.
6	Steel Rule 	Manufactured from stainless steel and features metric or imperial (or both) scales along its length. One end is usually flat whilst the other end is usually round.
7	Bandface 	A vertical bandfacer used for sanding, finishing & finishing tasks. (making surfaces flat).

2. Design Styles

1	Memphis	A design style that focusses on giving objects human features (Anthropomorphic) from simplistic geometric forms
2	De Stijl	A design style that takes its form from primary colours (Red, Blue and Yellow)
3	Art Deco	A design style that takes its influence from 'sunburst motifs' and 'ziggurat' (stepped pyramids)

3. Materials; Softwoods

A term for the wood which is produced by **coniferous** trees, they can take up to **20 years** before these trees can be used.

1	Pine	Furniture
2	Spruce	Roofing
3	Cedar	Cladding

3. Materials; Hardwoods

Hardwoods are usually have **broad leaves**, come from **deciduous** or broad-leaved trees and take many years to grow to maturity before they can be used (**100 Yrs**)




1	Teak	Exterior furniture
2	Oak	Interior furniture / Beams in old cottages
5	Beech	Kitchen items & musical instruments.

3. Materials; Manufactured Boards

Manufactured boards are timber sheets which are produced by **gluing wood layers or wood fibres** together. Often made use of **waste wood materials**

1	Medium Density Fibreboard (MDF)	Wood particles are combining with glue, and formed into panels by applying high temperature and pressure.
2	Plywood	Consists of two or more layers of wood glued and pressed together with the direction of the grain alternating.
5	Chipboard	Made from compressed wood chips and glues, often coated or veneered to give desired appearance

4. Wood Joints









1	Comb/Finger Joint 	Consists of a series of alternate notches and square pins of the same width which are subsequently glued.
3	Dowel Joint 	Used to reinforce Butt Joints by drilling holes and inserting round lengths of wood.
4	Screw Joint 	A type of joint that is fastened by means of a threaded metal rod and a screwdriver.

Sand down all wood
(P80,P120,P240,P320,P400)


Apply **woodstain** as a finish will add **colour** to wood, but still allow the natural appearance of the wood to be seen – You will still see the wood **grain**.

Impact screwdrivers and hand drills are **not** the same. To make a screw joint you will first need a **pilot hole**, then a **countersink**.

1. Equipment

1	Sieve 	We use it to get air into a mixture and get any lumps out of flour.
2	Colander 	Used to drain water out of food e.g pasta, washing vegetables
3	Chopping board 	Used to prepare food on for hygiene and to protect the kitchen surface.
4	Wooden spoon 	Used to stir hot things as it doesn't melt or conduct heat.
5	Peeler 	Takes the skin off food e.g carrots.
6	Cooling rack 	Used to put hot things on to let them cool down faster as the air can get all around.
7	Measuring jug 	Used to measure liquid. Read at eye level for accuracy.
8	Table spoon	A spoon bigger than a teaspoon and dessert spoon.
9	Cooker 	Consists of three parts (cooker, hob and grill)
10	Saucepan 	Used to heat up things on the hob.
11	Garlic crush 	Used to crush peeled garlic cloves to make a paste.

2. Macronutrient components

1	Macronutrients	Macronutrients are the nutrients we need in larger quantities that provide us with energy. E.g. fat, protein and carbohydrate
2	Balanced	A balanced meal includes a variety of foods from different food groups, ensuring you get a wide range of nutrients.
3	Portion size	One portion of fruit/vegetables is roughly the size of your hand
4	Carbohydrates	Two types (sugar & starch). These foods provide us with energy. Wholemeal options aid digestion and keep us feeling full e.g. wholemeal bread
5	Protein & Alternatives	Protein is an essential macronutrient that your body needs for growth, cell repair.
6	Fruit & Vegetables	Fresh, local, fruit and vegetables are best and can be very good value. Eat a variety of 5 different colours to maximise vitamin benefits. Helps immunity against germs.
7	Water 	We should drink 6-8 glasses a day. We lose water through urine and sweat. We get it from food and drink.
8	Oils and spreads	While some fat is essential, we often consume too much saturated fat and need to prioritize unsaturated fats
8	Sugar (not included on Eatwell guide)	Can lead to tooth decay, diabetes 11, obesity and strokes
9	Seasonal	Eating produce (fruits, vegetables, etc.) when it's naturally in harvest and ripe during the particular season it's grown in








3. Kitchen Processes

1	Washing and drying up	Always wash up in hot soapy water and dry thoroughly before putting away.
2	Weighing & Measuring	Weighing and measuring has to be accurate for the recipe to be successful. Grams and litres
3	Coloured chopping boards	Red= raw meat Green= salad & fruit Brown=vegetables Blue= fish Yellow= cooked meat. Used for safe food preparation
4	Hygiene & Safety	Rules to follow to ensure you make the products safely and hygienically









4. Key Vocabulary

1	Food Miles	The total distance food travels from its source (where it's grown) to the plate
2	Sustainable	Sustainable food is food that is grown and produced in ways that are good for the environment, good for people, and good for animals.
3	Temperature control	Changing the temperature to ensure your food to cooked correctly. High for boiling and low heat for simmering.
4	Fairtrade	Ensures that people who produce goods e.g. farmers in developing countries, are paid a fair price and have decent working conditions
5	Food miles	The distance food travels from where it is grown to our plates. Represents the CO2 emissions produced.

1. Tools & equipment

1	Pins 	Used to hold pieces of material together before sewing.
2	Needles 	Used to sew material together by hand. In this project for tacking your material before using the sewing machine.
3	Ruler 	Helps you mark out your fabric in straight lines before cutting.
4	Material Scissors 	Scissors that are designed to cut fabric only. Cutting paper with blunt the blades.
5	Tailors Chalk 	A special chalk that is used to mark out material. The chalk rubs away easily without leaving a mark.
6	Thread 	Thread is used to sew material together. It comes in lots of colours and can be used on the sewing machine or with a needle by hand.
7	Tie dye	Restrict method of dyeing fabric. Elastic bands are used to stop the flow of dye from one section of the fabric to the other forming a pattern
8	Sewing Machine 	An electronic machine that sews materials together.

2. Sewing Machine Components

1	Bobbin 	The small circular thread holder that goes in the bottom of the sewing machine to stop your stitches coming undone.
2	Bobbin Case 	Holds the bobbin in place in the sewing machine. Must be put in with the arm to the top.
3	Bobbin Winder 	Located on the top of the sewing machine and used to wind up the bobbin. When clicked in it will stop the sewing machine sewing.
4	Foot Peddle 	Operates the sewing machine, must be out on the floor. DO NOT PULL UP BY THE WIRE.
5	Stitch Selector Buttons 	Changes the style of the stitches. 1 is used for straight stitching.
6	Reverse button 	Puts the sewing machine in reverse. Should be used at the start and the finish of a line of stitching to stop the stitching coming undone.
7	Sewing machine feet (zipper foot) 	A foot that is attached to the sewing machine to sew a zip into fabric.
8	Sewing machine needle plate 	Helps you line up your material correctly and produce a nice even straight stitch.

3. Process; Sewing machine sewing

1	Thread up the sewing machine with the thread you wish to sew with.
2	Bring up the bobbin thread (fishing) Select your stitch.
3	Place your material under the pressor foot and lower the lever at the back to hold in place. Then lower your needle into the fabric.
4	Hold your material steady with both hands and place your foot on the foot peddle. Let the machine take the fabric.
5	Do three stitches forward and three back to lock your thread (tie a knot) then complete your line of stitching repeating the three stitches forward and three back at the end.

4. Materials

1	Denim	A natural fabric that is made from cotton and in some cases elastane (if it has a stretch) Usually dyed using indigo dye
2.	Cotton	A natural fabric that is made from cotton fibres. Can be dyed many different colours.

Key Vocabulary

1	Puller	Metal part of a zip pulled to open and close
2.	Teeth	The interlocking parts of a zip that are raised. They open and close when the puller is moved up and down.
2	Tack stitch	A temporary stitch used to hold fabric in place before you sew on the sewing machine.

Bollywood – What is it?

Origins	Combines two names: Bombay (the city now called Mumbai) and Hollywood. Based in Mumbai, India and is one of the worlds largest film industries.
What does it look like?	A FUSION of Classical Indian dance, folk dances, Jazz, Hip Hop, Arabic and Latin.

KEY VOCABULARY

1	Action	The movement performed
6	Formations	The shape that you and your dancers make in the space. E.g. diamond, circle, zig zag.
7	Gesture	A movement done by the body which is not weight bearing, e.g., clapping, pointing, waving.
8	Warm up	Increases your heart rate so that oxygen travels in your blood faster to your muscles. E.g. Jogging on the spot or star jumps. It also stretches your muscles and mobilises your limbs. E.g. lunges to each side. This prevents injury during and after dancing
9	Fusion	A mix of different dance styles

Choreographic Devices : Ways in which a choreographer makes the movement created look more interesting

1	Levels	Using different areas of space (high, middle, low)
2	Directions	Facing and travelling different wats when performing movements.
3	Formations	Where the dancer stand on stage in relation to others on stage– Creates a pattern
4	Canon	Group of dancers performing a movement one after the other, similar to Mexican wave
5	Unison	Group of dancers performing movement at exactly the same time

DANCE PERFORMANCE SKILLS - DREAMS

1.D	DYNAMICS	How the movement is performed e.g. sharp, soft, heavy and having a variation to suit the dance.
2.R	RHYTHM AND TIMING	Picking out beats in music / Performing movements at the correct time as beat suggests or as other dancers are moving. "Being in time"
3.E	EXECUTION AND COMMITMENT	Making sure you finish off all your movements fully and fully immerse yourself into the mood and your character when performing.
4.A	AWARENESS OF SPACE	Having an awareness (knowing) of where other dancers are in relation to you , maintain formation and knowing the correct pathways to transition from one formation to another. Having An awareness (knowing) of set and props on stage. Important to prevent collisions.
5.M	MOVEMENT MEMORY	Being able to remember the movements choreographed without thinking or stalling.
6.S	STAMINA	Ability to keep going with high energy throughout rehearsal / performance without sowing fatigue.

Bollywood Movements

1	Hamsasya	Place you forefinger and thumb together. Rotate your hands (this is sign of knowledge, peace and meditation).
4	Triple Step / One Two Three step	<u>3 counts</u> Flat of right foot Toes of left foot Flat of right Repeat on left side
5	Limp Step	Put toes of right foot on the floor Press down on toes lifting left foot slightly off the floor Repeat on left foot
6	Side Lunge	Start feet together Lunge to the right with your leg, twisting your body to face the right. Keep your head to facing the front. Bring your feet back to the middle. Do the same on the left.
7	Around the World	Right foot on the floor Place ball of left foot on floor and push off it 4 times so that you turn your body around in a full circle Repeat on left foot
8	Step & Touch	Start feet together Step out to the right Touch ball of left foot on floor next to right Step out to left Touch ball of right foot on floor next to left
9	Turn	Start feet together Take right foot and cross it over in front of left foot Place ball of foot on the floor Simply unwind in a spin (This is all one action)
10	Shrugging Shoulders	Shrug your shoulders up and down <u>Progressions</u> 1) Gradually lift/raise arms up above shoulders 2) Can you do any of this at double speed?
11	Arm Pulse / Sprinkler	Put one arm behind your head and the other out to the said. Then pulse out and in.
12	Adja	A gesture where the palms face the ceiling and the fingers move inwards as if saying "come here".

VOCAL SKILLS TO BECOME A CHARACTER E - DEPART

1.	DICTION AND PROJECTION	Diction means pronouncing your speech clearly. Projection is making sure your voice can be heard (this doesn't mean shouting).
2.	EMPHASIS AND VOLUME	Emphasis is when you make a word stand out "I never said you stole my hat" is different from "I never said you stole my hat". Volume is how loud or quiet the voice is. Don't forget words such as whisper and shout.
3.	PITCH	Pitch means how high or low your voice is.
4.	ACCENT	Accent is used to show where a character is from, specifically which country or region. It can help us to understand if some one is posh or not (their social class) or where they come from, eg Geordie accent or Yorkshire accent.
5.	RHYTHM AND TEMPO	Rhythm is where we pause and leave gaps in speech. Tempo is how fast or slow the speech is.
6.	TONE	Tone describes the emotion behind the line.

Contextual links:

Roald Dahl Books – The Twits, Georges Marvellous Medicine, James and the Giant Peach, Danny Champion of the World.
Current Theatre Productions and musicals based on books – Wicked, Curious Incidents of the Dog in the Night time, Matilda.

KEY VOCABULARY DRAMA TECHNIQUES

1	Tableau	A freeze frame or still image.
2	Thought-tracking	Stopping the actions and speaking a character's thoughts out loud in a scene.
3	Marking the Moment	Making a moment stand out using a drama technique e.g. a piece of music, a change of lighting, a tableau or a thought-track
4	Off-text Improvisation	Making up a scene on the spot, showing what happens before or after the script.
5	Characterisation	Creating and performing a character convincingly – using vocal (depart) and physical (gspeed) skills.
6	Role on the Wall	A 'role on the wall' diagram is an outline of a person with information written on it - either inside the outline, or round the edge. It represents all of the information your KNOW about a character and also things you PRESUME or imagine about a character.
7	Dialogue	The speech and conversations in the performance
8	Cross-Cutting	Switching between time-period in a performance (a flash forward or flash back)
9	Hot-seating	Asking and answering questions IN CHARACTER.

Plot Summary

1	Act 1:	In, Venice, Antonio is unhappy. Despite owing his best friend a lot of money, Bassanio asks Antonio to fund his trip to Belmont to woo Portia. Shylock (who is Jewish) is angry at Christians' treatment. He lends Antonio money to support Bassanio. He demands a pound of Antonio's flesh if he doesn't pay him back promptly. In Belmont, Portia longs for a good husband but her father has set up a test for any suitor- they must choose between a casket of gold, silver or lead one of which will contain Portia's portrait.
2	Act 2:	In Venice, Jessica (Shylock's daughter) is rescued from her house by Lorenzo (her lover) and his friends. She takes money from her father. In Belmont, the Prince of Morocco chooses a gold casket. The Prince of Aragon chooses silver. Neither is right and Portia remains single.
3	Act 3:	In Venice, Antonio's ships have sunk meaning he can't pay Shylock; Shylock demands his pound of flesh. In Belmont, Bassanio makes the correct choice of a lead casket. Portia is pleased and they marry. Gratiano (Bassanio's friend) and Nerissa (Portia's lady in waiting) also agree to marry. Portia and Nerissa decide to dress up as men to travel to Venice and help Antonio.
4	Act 4:	In Venice, Shylock refuses to show mercy in the trial leaving Antonio facing death. Dressed as a lawyer, Portia enters the court and tells Shylock that spilling Antonio's blood would be criminal; Shylock is forced to become Christian. Portia and Nerissa, still disguised, trick their husbands into giving away their wedding rings.
5	Act 5:	In Belmont, the main characters are reunited. Portia and Nerissa reveal themselves and chastise their husbands saying they have been unfaithful for giving away their wedding rings. Antonio's ships arrive in Venice miraculously.

Themes

1	Love	Love is presented as complicated in the play. E.g., Portia is tied by her father's test of caskets and Bassanio tries to use money to woo Portia,
2	Mercy	The question of who is or is not merciful in the play runs throughout the play. E.g., Shylock shows no mercy to Antonio through pursuing his 'pound or flesh'.
3	Prejudice	The Venetians are intolerant towards Shylock and the other Jews in Venice. Being anti-Semitic seems to bond people together in the play.

Conventions of a Comedy play

1	The struggle of young lovers	The lovers of the play overcome hurdles to be together.
2	Mistaken identities and disguises	Twins are often mistaken for each other, and characters are hidden behind disguises.
3	Separation and reconciliation	Characters are often separated at the start of the play, but become reunited by the end.
4	Comical servants and fools	These characters often complete tasks incorrectly or mock the actions of others.
5	A blocking figure	A typically elderly figure (such as a parent) who prevents the young lovers from being together.
6	Idyllic settings	A magical realm, or a foreign country, where the action takes place.
7	Puns	A play on words.
8	Ends in marriage	The play ends happily, usually with the marriage of key characters.

Key Vocabulary

1	Money Lending (Usury)	Charging interest on money lent (usury) was considered against Christian values.
2	Antisemitism	Many European countries restricted the rights of Jewish people and were prejudiced towards them.
3	Prejudice	Having a negative or unfair opinion about someone before you know them properly.
4	Bond	A legal agreement.
5	Patriarchy	Wealthy fathers decided who their daughters should marry & women had little control over their personal lives.
6	Religious conversion	When a person changes their religious beliefs. They might do this because of personal beliefs or for marriage.
9	Merchant	A person who buys and sells goods or products to make money. Merchants can sell things in a shop, at a market, or even trade with other countries.

Conventions of a Petrarchan Sonnet

1	Number of lines	14
2	Stanza structure	Octave followed by a sestet
3	Volta	Generally occurs on Line 9
4	Meter	Iambic pentameter
5	Rhyme scheme	ABBAABBA CDECDE CDCDCD CDEDC
6	Theme/s	Courtly Love
7	Language	Italian

Conventions of a Shakespearean Sonnet

1	Number of lines	14
2	Stanza structure	3 Quatrains
3	Volta	May occur anywhere in the poem
4	Meter	Iambic pentameter
5	Rhyme scheme	ABABCDCEFEFGG
6	Theme/s	Love, philosophy
7	Language	English

Key Vocabulary

1	Sonnet	This is the form of the poem. Italian for 'little song'.
2	Stanza	Lines grouped together. Also referred to as a verse.
3	Octave	A group/ stanza of eight lines.
4	Sestet	A group / stanza of six lines.
5	Volta	The turning point in a sonnet.
6	Iamb	An unstressed syllable followed by a stressed syllable e.g., Arise, Happy
7	Pentameter	a line of verse consisting of five metrical feet.
8	Syllable	A single unit of sound
9	Meter	The pattern of stressed and unstressed syllables in a line.
10	Quatrain	A rhymed group of 4 lines in a poem.
11	Couplet	A pair of successive lines of verse, typically rhyming and of the same length.
13	Courtly Love	The art of romance practiced by the European courts during the middle ages (1300-1500).

Key Poets

1	Petrarch	Francesco Petrarca, (1304 – 1374). Italian scholar and poet famous for his sonnets addressed to Laura, an idealized and unattainable lover.	6	Christina Rossetti	Christina Rossetti was considered one of the finest female poets of the Victorian era alongside EBB and wrote romantic, devotional and children's poetry.
2	Shakespeare	William Shakespeare (1564 – 1616) was an English playwright, poet, and actor. His <i>Sonnets</i> were published in 1609 – a series of 154 poems about the complexities of love and life.	7	Emma Lazarus	An American poet who wrote the poem 'The New Colossus' (1883) that was inscribed below the statue of liberty in 1903.
3	Wordsworth	William Wordsworth was an English poet from Cumbria who spent time living in France during the revolution. He wrote about feelings and nature.	8	Countee Cullen	Countee Cullen was an African American poet who wrote during the Harlem Renaissance period in 1920s and 30s New York.
4	Elizabeth Barrett Browning	Elizabeth Barrett Browning was an English poet who lived in London with a very controlling father. She wrote about her love of her husband and political and moral issues.	9	Carol Ann Duffy	Carol Ann Duffy is a British poet and playwright. She is also a professor of contemporary poetry at Manchester Metropolitan University. She has written many collections of poetry such as <i>The World's Wife</i> and <i>Feminine Gospels</i> .

Sentence Starters

1	à mon avis	in my opinion
2	je dirais que	I would say that

Times of the Day

1	le matin	in the morning
2	l'après-midi	in the afternoon
3	le soir	in the evening
4	la nuit	at night

Who with

1	avec ma famille	with my family
2	avec mon père	with my dad
3	avec ma mère	with my mum
4	avec mon frère	with my brother
5	avec ma soeur	with my sister
6	mon beau père	my step-dad
7	ma belle mère	my step-mum
8	mon demi-frère	my stepbrother
9	ma demi-soeur	my step-sister

Connectives

1	et	and
2	ou	or
3	où	where
4	parce que	because
5	car	because
6	mais	but
7	pourtant	however
8	aussi	also

Frequency

1	tous les jours	every day
2	de temps en temps	from time to time
3	une fois par semaine	once a week
4	deux fois par mois	twice a month
5	ne...jamais	never
6	toujours	always
7	souvent	often
8	quelquefois	sometimes

Possessives

1	mon/ma/mes	my
2	ton/ta/tes	your
3	son/sa/ses	his/her
4	notre/nos	our

Intensifiers

1	un peu	a bit
2	assez	quite
3	très	very
4	vraiment	really
5	beaucoup	a lot
6	trop	too
7	tellement	so
8	plutôt	rather

Describe Myself and Others

1	beau/belle	handsome/beautiful
2	joli/jolie	pretty
3	vieux/vieille	old
4	heureux/heureuse	happy
5	travailleur/travailleuse	hardworking
6	fou/folle	crazy
7	gentil/gentille	kind
8	embêtant/embêtante	annoying
9	méchant/méchante	nasty/mean/naughty
10	paresseux/paresseuse	lazy
11	drôle	funny
12	triste	sad

Adjectives

1	amusant	fun
2	intéressant	interesting
3	passionnant	exciting
4	utile	useful
5	incroyable	incredible
6	ennuyeux	boring
7	fatigant	tiring
8	cher	expensive

Present Tense		
1	Je suis	I am
2	J'ai	I have
3	Je fais	I do/make
4	Je vais	I go
5	Je joue	I play
6	Je mange	I eat
7	Je bois	I drink
8	Je lis	I read
9	J'achète	I buy
10	Je trouve	I find
11	Je pense	I think
12	c'est	it's

Near Future Tense – I am going to...		
1	Je vais être	be
2	Je vais avoir	have
3	Je vais aller	go
4	Je vais faire	do
5	Je vais jouer	play
6	Je vais regarder	watch
7	Je vais manger	eat
8	Je vais acheter	buy
9	Je vais boire	drink
10	Je vais voyager	travel
11	ce sera	it will be

Introducing Opinions		
1	J'aime	I like
2	Je n'aime pas	I don't like
3	J'adore	I love
4	Je déteste	I hate
5	Je préfère	I prefer
6	Je voudrais	I would like

Days		
1	lundi	Monday
2	mardi	Tuesday
3	mercredi	Wednesday
4	jeudi	Thursday
5	vendredi	Friday
6	samedi	Saturday
7	dimanche	Sunday
8	un jour	one day
9	une semaine	a week
10	une quinzaine	a fortnight

Weather Phrases		
1	il fait beau	It's nice
2	il fait chaud	It's hot
3	il fait froid	It's cold
4	il y a du vent	It's windy
5	il y a du soleil	It's sunny
6	il y a du brouillard	It's foggy
7	il y a des nuages	It's cloudy
8	il y a des orages	It's stormy
9	il neige	It's snowing
10	il pleut	It's raining
11	il gèle	It's freezing

Il y a – there is/are		
1	un homme	a man
2	une femme	a woman
3	un garçon	a boy
4	une fille	a girl
5	une famille	a family
6	des enfants	children
7	des gens	people
8	des adultes	adults

Seasons & Compass		
1	le nord	the north
2	le sud	the south
3	l'est	the east
4	l'ouest	the west
5	au printemps	in spring
6	en été	in summer
7	en automne	in autumn
8	en hiver	in winter

Prepositions		
1	dans	in
2	sous	under
3	sur	on
4	entre	between
5	devant	in front of
6	derrière	behind
7	à côté de	next to
8	en face de	opposite
9	loin de	far from
10	près de	near to


1. Life in a hot desert

Desert	A dry region of little rainfall, extreme temperatures, and sparse vegetation. They can be cold deserts, hot deserts or coastal deserts.
Hot desert	Hot deserts have high average temperatures and very low rainfall. Some examples are the Sahara Desert and the Mojave Desert.
Temperature	As there is little humidity and cloud cover, temperatures can become extremely hot during the day and cold at night.

2. How do plants and animals adapt

Biodiversity	The number/variety of different plant and animal species in an ecosystem.
Nocturnal	Most active at night.
Camel	Camels have many adaptations that help them survive in the harsh hot desert climate.
Plant adaptations	Many desert plants can expand during a rainfall event to store water in their stems. When it rains in the desert, these plants can increase as much as 50% through water absorption.

3. How may desert climate change

Sahara	A vast desert in northern Africa extending east from the Atlantic coast to the Red Sea
Sahel region	The vast semi-arid region of Africa separating the Sahara Desert to the north and tropical savanna to the south. 
Desertification	The process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate farming.
Famine	A drastic, wide-reaching food shortage. The Sahel region is particularly vulnerable to food scarcity (lack of food).
Great Green Wall	A plan to build a strip of trees across the north of Africa. There has been evidence that this is reducing the risk of desertification and improving farming.

4. Introduction to Mojave desert

1	Location	The Mojave desert is located on the continent of North America in the country of the U.S.A. The desert covers parts of the states of Nevada, California and Arizona.
2	Climate	The desert reaches temperatures of 35°C and months where the highest amount of rainfall is just over 1 mm.

5. Human activity- Tourism to a desert

Las Vegas	A city in southern Nevada best known for the Strip, a street lined with mega-resorts and casinos.
Visitor numbers	In the last five years, Las Vegas averaged above 40 million tourists visiting each year. 2020 saw that number drop due to the pandemic.
Activities	There are a number of activities that draw tourists to Las Vegas. Some popular experiences are helicopter rides to the Grand Canyon, walking the famous strip and shopping for luxury goods.

6. Is Las Vegas sustainable?

Sustainable	Something that can be continued without harming the environment. For example, solar power or reusable cups.
Unsustainable	Not sustainable. For example, petrol cars, wasting water and electricity.
Water scarcity	A lack of water. Las Vegas consumes the most water per person compared to any other city in the world. They are also running out of water.
Green incentives	Businesses are given benefits to create a more green and environmentally friendly city.

Where do we find Antarctica?

Antarctica	A continent lying mostly within the Antarctic Circle and centred on the South Pole. 98% percent of Antarctica is covered by an icecap averaging 1 mile in thickness.
Desert	A dry region of little rainfall, extreme temperatures, and sparse vegetation.
Antarctic Treaty	The Antarctic Treaty was signed in 1959 by 12 countries and sets out the rules to manage the continent and surrounding waters.
Expedition	A journey with a focus on exploration and discovery. Norwegian explorer, Roald Amundsen, first reached the South Pole in 1911.

The climate in Antarctica

Weather	Weather describes the day-to-day conditions of the atmosphere.
Climate	Climate describes average weather conditions over longer periods and over large areas.
Climate graph	Climate graphs are a combination of a bar and line graph showing temperature and rainfall. <i>Example</i>

Plant and animal adaptations

Adaptations	Physical and behavioural changes that help animals survive in certain conditions.
Food web	The sequence of events in an ecosystem, where one organism eats another and then is eaten by another organism.
Apex predator	A predator at the top of the food chain with no natural predators of their own. E.g Orca

Human activities in Antarctica

Scientific research 	Eighteen countries operate year-round scientific research stations on the continent and the surrounding islands. There are unique opportunities to study things that are not found anywhere else in the world.
Tourism 	Tourists visit during the summer to enjoy the spectacular scenery and abundant wildlife. Figures show that 73,991 people travelled to Antarctica between October 2019 and April 2020.
Fishing 	Some legal fishing is allowed off the coast of Antarctica but it is closely monitored. Approximately 400,000 tonnes of Antarctic krill was caught in 2019 alone.

Protecting Antarctica

Antarctic Treaty	The Antarctic Treaty now has 54 countries who have signed and committed to the protection of Antarctica and its waters through international law.
Microplastics	Small particles of plastic that are less than 5mm in size. They are often found in the marine environment.
Illegal fishing	Fishing that breaks international laws, boundaries and quantity of catch. Antarctic toothfish is often caught illegally due to its high price.
Pollution	The contamination of soil, water, or the atmosphere by the discharge of harmful substances. Pollution is finding its way to Antarctica more frequently in various forms.

Climate change and Antarctica

Climate change	The planet's average surface temperature has risen about 1.18°C since the late 19th century. This is attributed to human activities and is known as anthropogenic (human caused) climate change.
Sea level rise	Antarctica has the potential to contribute more than a metre of sea-level rise by 2100 and more than 15 metres by 2500.

Present Tense		
1	Ich bin	I am
2	Ich habe	I have
3	Ich mache	I do/make
4	Ich gehe	I go
5	Ich spiele	I play
6	Ich esse	I eat
7	Ich trinke	I drink
8	Ich lese	I read
9	Ich schwimme	I swim
10	Ich fahre	I travel

Es gibt		
1	ein Mann	a man
2	eine Frau	a woman
3	ein Junge	a boy
4	ein Mädchen	a girl
5	eine Familie	a family
6	die Kinder	children
7	die Leute	people
8	eine Gruppe	friends

Future Tense – I will		
1	Ich werde sein	I will be
2	Ich werde haben	I will have
3	Ich werde machen	I will make
4	Ich werde gehen	I will go
5	Ich werde spielen	I will play
6	Ich werde essen	I will eat
7	Ich werde trinken	I will drink
8	Ich werde lesen	I will read
9	Ich werde schwimmen	I will swim
10	Ich werde fahren	I will travel

Seasons & Compass		
1	Nord	the north
2	Süd	the south
3	Ost	the east
4	West	the west
5	im Frühling	in spring
6	im Sommer	in summer
7	im Herbst	in autumn
8	im Winter	in winter

Introducing Opinions		
1	Ich mag	I like
2	Ich mag ... nicht	I don't like
3	Ich liebe	I love
4	Ich hasse	I hate
5	Ich möchte	I would like
6	gern	like
7	Ich finde	I find
8	Ich denke	I think

Weather Phrases		
1	Es ist sonnig	it's sunny
2	Es ist heiß	It's hot
3	Es ist kalt	It's cold
4	Es ist windig	It's windy
5	Es ist neblig	It's foggy
6	Es ist wolkig	It's cloudy
7	Es ist stürmisch	It's stormy
8	Es regnet	It's raining
9	Es schneit	It's snowing
10	Es donnert und blitzt	There is thunder and lightning

Colours		
1	rot	red
2	blau	blue
3	gelb	yellow
4	grün	green
5	lila	purple
6	braun	brown
7	schwarz	black
8	weiß	white
9	orange	orange
10	rosa	pink
11	hell-	light
12	dunkel-	dark
13	bunt	colourful

Prepositions		
1	in	in
2	unter	under
3	auf	on
4	zwischen	between
5	vor	in front of
6	hinter	behind
7	neben	next to
8	gegenüber	opposite
9	mit	with

Sentence Starters

1	Meiner Meinung nach	in my opinion
2	Ich finde	I find

Times of the Day

1	am Morgen	in the morning
2	am Nachmittag	in the afternoon
3	an Abend	in the evening
4	in der Nacht	at night

Who with

1	mit meiner Familie	with my family
2	mit meinem Vater	with my dad
3	mit meiner Mutter	with my mum
4	mit meinem Bruder	with my brother
5	mit meiner Schwester	with my sister
6	mit meinem Stiefvater	with my step-dad
7	mit meiner Stiefschwester	with my step-sister
8	mit meinem Halbbruder	with my half-brother
9	mit meinen Freunden	with my friends

Connectives

1	und	and
2	oder	or
3	denn	because
4	weil	because
5	aber	but
6	obwohl	although
7	auch	also
8	jedoch	however

Frequency

1	jeden Tag	every day
2	einmal pro Woche	once a week
3	manchmal	sometimes
4	immer	always
5	nie	never
6	am Wochenende	at the weekend
7	oft	often
8	am Montag	on Monday
9	Heute	today
10	morgen	tomorrow

Possessives

1	mein/meine/mein	my
2	dein/deine/dein	your
3	sein/seine/sein	his
4	ihr/ihre/ihr	her

Intensifiers

1	ein bißchen	a bit
2	ziemlich	quite
3	sehr	very
4	nur	only
5	viel	a lot
6	zu	too
7	wirklich	really
8	nicht so	not so

Adjectives

1	lustig	funny
2	interessant	interesting
4	nützlich	useful
5	nutzlos	useless
6	langweilig	boring
7	schlecht	bad
8	nervig	annoying
9	toll	great
10	schwierig	difficult
11	einfach	easy

Describe Myself and Others

1	faul	lazy
2	freundlich	friendly
3	launisch	moody
4	musikalisch	musical
5	sportlich	sporty
6	frech	cheeky
7	niedlich	cute
8	groß	big/tall
9	klein	small/short
10	dick	fat
11	schlank	slim
12	mittelgroß	mid-height

1. Did religion matter?		
1	What had happened before 1558?	<ol style="list-style-type: none"> Henry VIII had changed the religion of England from Catholic to Protestant It stayed Protestant under Edward VI Mary I changed the religion back to Catholic and punished Protestants Harshly
2	What changes did Elizabeth make to the Church?	<ol style="list-style-type: none"> She made a compromise called the Middle Way - It had features of both religions She didn't punish people harshly when they didn't go to Protestant Church
3	What effect did her changes have?	<ol style="list-style-type: none"> Some Catholics were unhappy and made plots to replace her. The plots were unsuccessful Most people were happy with her compromise

3. How well did Elizabethans look after the poor?		
1	Why was poverty a problem?	<ol style="list-style-type: none"> When England was a Catholic country, monasteries would give help to poor people. Henry VIII shut down the monasteries There was more unemployment because there were changes to farming
2	What did Elizabethans think about the poor?	<ol style="list-style-type: none"> The Elizabethans divided the poor into two categories The Deserving Poor were people who deserved help because they couldn't work The Undeserving Poor were people who didn't deserve help because they were seen to be too lazy
3	How did Elizabethans try to help poverty?	<ol style="list-style-type: none"> The Elizabethans set up almshouses to offer food and shelter to the poor Local taxes were used to help the deserving poor Beggars were punished harshly People who refused to work were imprisoned in workhouses

Key word	Definition
Almshouse	A place where poor people could go for food and shelter
Catholic	The Christian religion that is headed by the Pope. The religion of Europe at this time
Court	A place where the King or Queen would live and meet important people. It was an honour to be invited to court
Noble	The most respected group in society. They were born into their position and owned land
Patriarchy	When society is set up in a way where men are more important than women
Pope	The person in charge of the Catholic church. He lives in Rome
Protestant	Someone who followed the teachings of Martin Luther and protested against the Catholics
Workhouses	A place where poor people were sent to do hard work in return for food and shelter

2. What was life like for Elizabethan women?		
1	What did the Elizabethans think about women?	<ol style="list-style-type: none"> Elizabethan England was a patriarchy Women were thought to be less important and powerful than men Women would be less likely to inherit land and wealth
2	Who was Bess of Hardwick?	<ol style="list-style-type: none"> Bess of Hardwick was born into a quite wealthy family but was not a noble She had some important jobs in court She was married 4 times and inherited money after each of her husbands died She became the second richest woman in England, after Elizabeth
3	How unusual was Bess?	<ol style="list-style-type: none"> It was unusual for a woman to be able to climb the social ladder It was unusual for a woman to be able to build a legacy, like the houses she improved She was clever about keeping her properties when she got remarried

4. How diverse was Elizabethan England?		
1	How did people from Africa come to be in England?	<ol style="list-style-type: none"> People of African origin came to be in England from a range of routes. Some came as traders/ambassadors to represent their country Some straight from Africa, while some arrived through the Spanish and Portuguese empires.
2	What evidence do we have of Black Tudors?	<ol style="list-style-type: none"> Cateina of Almondsbury was an unmarried woman who owned a cow and made money by selling dairy products Diego was the personal servant to Francis Drake. He had important jobs as translator for Drake Mary Fillis was servant, merchant and seamstress. She was baptized as a Christian

Did England rule the waves?		
1	What was piracy?	<ol style="list-style-type: none"> Explorers like Francis Drake went sailing around the world to discover new places and bring back new riches. These explorers also attacked Spanish ships and brought the gold back to England. Elizabeth supported their activities Another famous pirate was Grace O'Malley, who fought to keep control over parts of Ireland. She met Queen Elizabeth
2	How did piracy affect England?	<ol style="list-style-type: none"> Piracy made England rich as it brought lots of gold back to England Elizabeth was grateful for the pirates' activities - she even knighted Francis Drake Piracy made Spain very angry with England, especially when Drake was given a knighthood. Piracy was one of the reasons that Spain tried to invade England in the Spanish Armada
3	Why did England win the Spanish Armada?	<ol style="list-style-type: none"> England had more experienced sea captains and better ships Spain was planning a land invasion, so their leaders and equipment were prepared for fighting on land Spain was supposed to meet up with a bigger army from the Netherlands but they never arrived. The English tactics of fireships managed to break the Spanish ships defensive formation The weather meant that the Spanish ships were forced to sail up around Scotland and Ireland where they were attacked more.

Number – Factors, Multiples & Primes

1	Find the highest common factor (HCF) & lowest common multiple (LCM)	<p>LCM by Listing out the Multiples Find the LCM of 5 and 6 Multiples of 5: 5, 10, 15, 20, 25, <u>30</u>, 35, ... Multiples of 6: 6, 12, 18, 24, <u>30</u>, 36, ... Least Multiple common in both numbers is 30</p> <p>HCF by Listing out the Factors Find the HCF of 24 and 36 Factors of 24: 1, 2, 3, 4, 6, 8, <u>12</u>, 24 Factors of 36: 1, 2, 3, 4, 6, 9, <u>12</u>, 18, 36 Highest common factor is 12</p>
2	Express a number as a product of its prime factors	<p>• Example: Write 84 as a product of its prime factors</p> <p>• $84 = 2 \times 2 \times 3 \times 7$ • $84 = 2^2 \times 3 \times 7$</p>
3	Use Venn diagrams to find the HCF and LCM	<p>HCF and LCM Find the HCF and LCM of 24 and 36</p> <p>HCF: $2 \times 2 \times 3 = 12$ LCM: $2 \times 2 \times 2 \times 3 \times 3 = 72$</p>

Number - Decimals

1	Round to a given number of decimal places	Round 5.68 to 1dp = 5.7
2	Round to any significant figure	Round 346 to 1sf = 300

Geometry & Surface Area

1	Find the surface area cubes & cuboids	<p>Find the area of each surface and add together.</p> <p>Surface Area = $2lw + 2lh + 2wh$</p>
2	Find the surface area of triangular prisms & cylinders	<p>$Cylinder = 2\pi rh + 2\pi r^2$</p> <p>$Triangular\ prism = bh + 2ls + lb$</p>
3	Draw 3D shapes on isometric shapes	
4	Draw nets of 3D shapes	

3	Estimate answers to calculations involving decimals	$\frac{7.19 \times 19.7}{0.46} = \frac{7 \times 20}{0.5} = 280$
---	---	---

Algebra – Coordinates, Straight line graphs

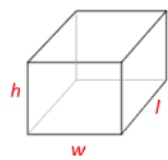
1	Draw lines in the form $y=3, x=2, y=x$	<p>A: $y = 2$ B: $x = 1$ C: $y = -3$ D: $y = x$</p>												
2	Plot simple linear graphs from a table of results, in the form $y = mx + c$	<p>Draw the graph of $y = 2x - 1$</p> <table border="1"> <tr> <th>x</th> <td>-2</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <th>y</th> <td>-5</td> <td>-3</td> <td>-1</td> <td>1</td> <td>3</td> </tr> </table>	x	-2	-1	0	1	2	y	-5	-3	-1	1	3
x	-2	-1	0	1	2									
y	-5	-3	-1	1	3									
3	Find the gradient of a straight line	$\frac{\text{Change in } y}{\text{Change in } x}$												
4	Identify the equation of a straight line graph	$y = mx + c$ <i>m</i> is gradient and <i>c</i> is <i>y</i> intercept												

Key Vocabulary

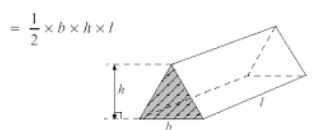
1	Linear graph	A straight line graph.
2	Surface area	The area of each surface of a 3D shape added together.
3	Gradient	The slope of a line. The higher the gradient the steeper the line.

Geometry - Volume

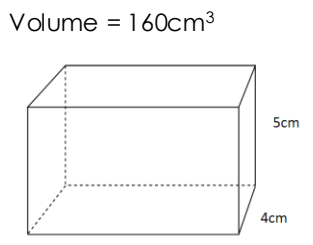
1 Volume of cubes, cuboids
 $V = \text{length} \times \text{width} \times \text{height}$



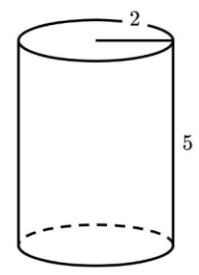
2 Volume of simple prisms
Triangular prism = $\frac{1}{2} \times \text{base} \times \text{height} \times \text{length}$



3 Find missing lengths given volume
 $\text{Length} = \frac{160}{5 \times 4} = 8\text{cm}$



4 Volume of cylinders & composite shapes
 $V = \pi r^2 h$
 $V = \pi \times 2^2 \times 5$
 $V = 62.83 \text{ cm}^3$

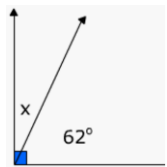


Geometry - Angles

1 Angles on a line, in a triangle, around a point

Angles on a straight line = 180°
Angles in a triangle = 180°
Angles around a point = 360°

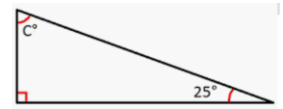
2 Find missing angles
 $x = 90 - 62$
 $x = 28^\circ$



3 Angles in a triangle and in a quadrilateral

Angles in a triangle = 180°
Angles in a quadrilateral = 360°

4 Missing angles in a triangle and in a quadrilateral
 $C = 180 - 90 - 25 = 65^\circ$



5 Angles in parallel lines & intersecting lines

Alternate angles are equal.
Corresponding angles are equal.
Co-interior angles = 180°
Vertically opposite angles are equal.

Statistics – Graphs & Charts

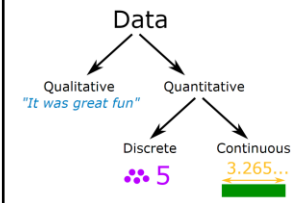
1 Bar charts

Bars must be the same width.
Always leave equal gaps between bars.

2 Grouped frequency tables

Papers Sold	Frequency
15-19	2
20-24	7
25-29	1

3 Understand different types of data













Key Vocabulary

1	Quadrilateral	A four sided shape.
2	Parallel	Two lines that are always the same distance apart and never touch.
3	Perpendicular	A line meeting another at a right angle, or 90° .
4	Volume	The space enclosed by a 3D shape.
5	Frequency	The number of times something occurs.
6	Composite shapes	A shape that consists of multiple different shapes.

1. Notation

Writing music down so players can easily read the pitch and duration of the notes they are supposed to play.

1		Crotchet = 1 Beat
2		Quaver = ½ Beat
3		Minim = 2 Beats
4		Semibreve = 4 Beats
5		Rest = Rest for 1 beat (Crotchet rest)
6		Rest = Rest ½ beat (Quaver rest)
7		Treble Clef = A symbol that is placed on every line of music to show the notes which will be sung or played by voices and instruments that can achieve higher notes.
8		Bass Clef = Signifies low to medium pitches being read on the staff.
9		Staff/ Staff = The Staff is the five lines which the notes are written on.
10		Time signature- Indicating how many beats in a bar

2. Riffs

1	Riff	A repeated musical pattern in Pop/rock/jazz music
2	Ostinato	A repeated musical pattern in classical music
3	Catchy	Something that gets stuck in the listeners head
5	Chord	A group of 2 or more notes played together
6	Chord Sequence	A pattern of chords
7	Major	Happy sounding
8	Minor	Sad sounding
9	12 bar blues	A popular pattern of chords originating in blues music
10	Intervals	The gaps between the notes of the chord.

3. Key vocab Song structure

1	Intro	The section of the music that introduces the song.
2	Verse	A section that repeats in a song, it has the same music, but different lyrics.
3	Chorus	The main section of a song, it will repeat both the lyrics and the music in the same way..

3. Key Vocabulary

1	Dynamics	The volume of the music (Loud or quiet)
2	Rhythm	A pattern on sounds of different lengths and what makes music move and flow.
3	Structure	Gives shape and balance to the music
4	Melody	The main tune
5	Instrumentation	The instruments used in the piece
6	Texture	The layers of instruments. Thick- lots of instruments Thin- A few instruments
7	Harmony	A multiple of pitches being played at the same time.
8	Timing	Playing with the pulse of the music
9	Pulse	The background "heartbeat" of a piece of music.
10	Tempo	The speed the music is played (fast or slow)
11	Pitch	How high or low the note is
12	Tonality	Major (Happy) or Minor (Sad) sounding. Determined by the Key of the music.





Good examples of riffs: Ed Sheeran- Shape of you, Deep purple- Smoke on the water, Mission impossible theme, Cream- Sunshine of your love

1. Calypso		
1	Calypso	a style of Afro Caribbean music that originated in Trinidad and Tobago during the early to mid-19th century
2	Musicians	Lord Kitchener, Mighty Sparrow, Roaring Lion
3	Instruments used	Trumpet, Flute, Saxophone, Steelpan, Congas, Bongos, Bass Guitar, Trombone, Violin

2. Reggae		
1	Reggae	A music genre that originated in Jamaica in the late 1960s influenced by rhythm and blues and Jazz
2	Musicians	Bob Marley, Toots and the Maytals, Jimmy Cliff
3	Instruments used	Bass guitar, Drum Kit, Guitar, Electric Organ, Brass instruments, Piano, Melodica

3. Song Structure		
1	Intro	The section of the music that introduces the song.
2	Verse	A section that repeats in a song, it has the same music, but different lyrics.
3	Chorus	The main section of a song, it will repeat both the lyrics and the music in the same way..
4	Outro	The ending section of a song.

4. Caribbean music		
1	Syncopation	A variety of rhythms played together
2	Off beat Skanking	Playing chords on beats 2 and four
3	Bassline	The lowest part in music, provides the harmonic structure of the music.
4	Rastafarianism	Religion of reggae music. About peace, love and unity

5. Instruments		
1	Melodica	To play the melody, you blow into it. 
2	Steel Pan	Can play all the parts, used in Calypso 
3	Bass Guitar	Play the bassline riff. 
4	Electric Organ	Plays the off beat skanking chords. 

6. Key Vocabulary		
1	Dynamics	The volume of the music (Loud or quiet)
2	Rhythm	A pattern on sounds of different lengths and what makes music move and flow.
3	Structure	Gives shape and balance to the music
4	Melody	The main tune
5	Instrumentation	The instruments used in the piece
6	Texture	The layers of instruments. Thick- lots of instruments Thin- A few instruments
7	Harmony	A multiple of pitches being played at the same time.
8	Timing	Playing with the pulse of the music
9	Pulse	The background "heartbeat" of a piece of music.
10	Tempo	The speed the music is played (fast or slow)
11	Pitch	How high or low the note is
12	Tonality	Major (Happy) or Minor (Sad) sounding. Determined by the Key of the music.

Knowledge Group 1

1	What are the five pillars?	5 things Muslims are committed to
2	What does Sawm mean?	Fasting during Ramadan
3	What does Zakat mean?	Giving to charity
4	What does Salah mean?	Prayer- 5 times a day
5	What does Hajj mean?	Pilgrimage to Mecca
6	What is the Shahadah?	The declaration of faith

Knowledge Group 2

1	What does pilgrimage mean?	Going on a special religious journey
2	Where do Muslims go on Hajj?	To Mecca in Saudi Arabia
3	Why is Mecca special?	Its where the Prophet started the religion
4	What is the Kaaba?	The black stone in the centre of Mecca
5	How often should Muslims go on Pilgrimage?	At least once in their lifetime
6	Name two things Muslims do at Mecca	Throw stone at Jamarat Walk the Kaaba 7 times Walk between Safa and Marwa

Knowledge Group 3

1	What is a prophet?	A person to whom God revealed truth. They are not a god
2	Who is the most important Prophet in Islam?	Prophet Muhammad (PBUH)
3	What are the Hadith?	An account of Muhammad's life. Muslims read it for how to act in their own lives.
4	Who was Muhammad (PBUH)?	Seal of the prophets. God revealed the Qur'an to him
5	What is the Night of Power?	When the Quran was revealed to Muhammad (PBUH)

Knowledge Group 4

1	Who is the founder of Islam?	Prophet Muhammad (PBUH)
2	What is the name of the Islamic holy book?	Qur'an
3	Where do Muslims go to worship?	Mosque
4	Muslims are monotheistic, what does that mean?	They believe in one God
5	What is a Haafiz?	Someone who knows the Quran off by heart
6	What is the role of a prophet?	They are a messenger of God and reveal truth

Key word **Definition**

Adhan	Call to prayer at the mosque
Five Pillars	Muslims are committed to these five things
Haafiz	Someone who has learnt the Qur'an off by heart
illiterate	Unable to read or write
Islam	A religion based on the teachings of Prophet Muhammad (PBUH)
Mecca	Holy place of pilgrimage
Monotheism	Belief in one God.
Mosque	Muslim place of worship
Prophet	God reveals truths to these people
Prophet Muhammad (PBUH)	The final and complete revelation was from this man. (PBUH) is a sign of respect
Qur'an	The Holy Book of Islam
Ramadan	The period of fasting
Suhoor	Muslims eat this meal before sunrise during Ramandan
suras	Verses in the Qur'an
Wudu	Special way of washing

- Islam** is the second-largest religion in the **world**, following Christianity.
- Indonesia has the largest following of the Islamic religion - 12.6%. Pakistan, India and Bangladesh also have large Muslim populations.
- Muslims make up .9% of the US population.
- It is the fastest growing religion in the world today
- It is misrepresented in the media

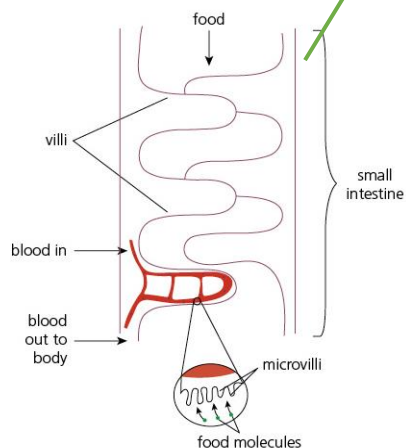
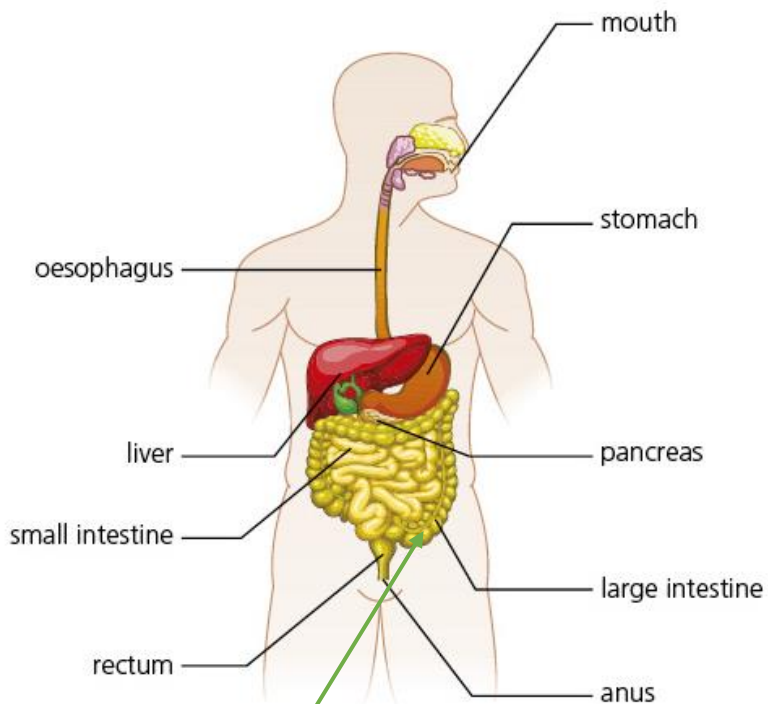
Chemical Digestion

	Enzyme or chemical	Where is it made?	Action
1	Amylase	Mouth, pancreas, small int.	Breaks down starch to glucose
2	Protease	Stomach, pancreas, small int.	Protein to amino acids
3	Lipase	Pancreas, small int.	Fats/Lipids to fatty acid and glycerol
4	HCl/acid	Stomach	Optimum for Protease
5	Bile	Liver, stored in gall bladder	Neutralizes stomach acid so optimum for enzymes

Nutrients (Food Groups)

1	Carbohydrate	Energy source
2	Lipid (fats)	Stored energy source and insulation
3	Protein	Growth & Repair
4	Vitamins & Minerals	Only small amounts needed to keep your body healthy
5	Water	Needed to allow chemical reactions to take place
6	Fibre	Keeps food moving through gut

Digestive System



Digested food absorbed into blood in small intestine.

Walls are folded and have villi to increase surface area for greater absorption

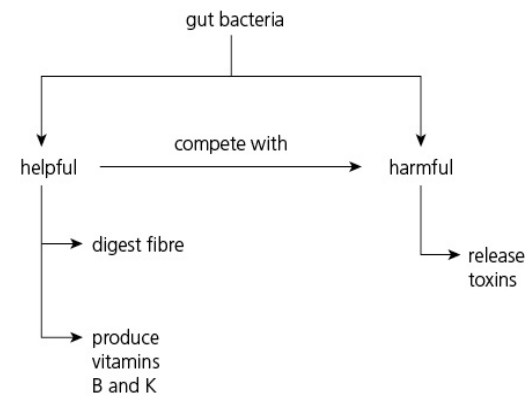
Thin walls so absorption by diffusion is quicker

Good blood supply to speed up absorption

Key Vocabulary

Enzyme	A protein molecule that is a biological catalyst
Balanced diet	Contains all the food groups in the correct proportions.
7 major components of a balanced diet	Carbohydrates, fats and oils, proteins, vitamins, minerals, fibre and water.
Deficiency disease	Disease caused by a lacking a component of a healthy lifestyle.
Obesity	A disease in which a person has a lot of fat
Gut Bacteria	Bacteria that digests some carbohydrates, reduces the chance of harmful bacteria causing disease and provides vitamins B and K.

Gut bacteria



Worked example

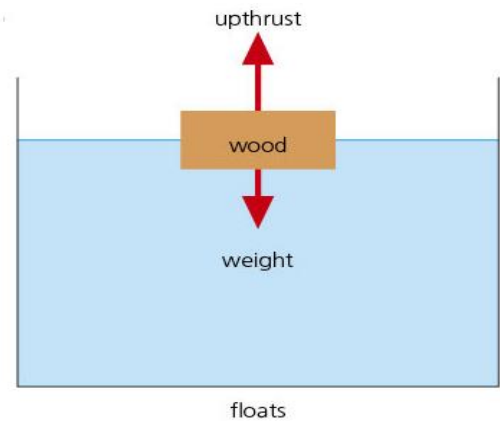
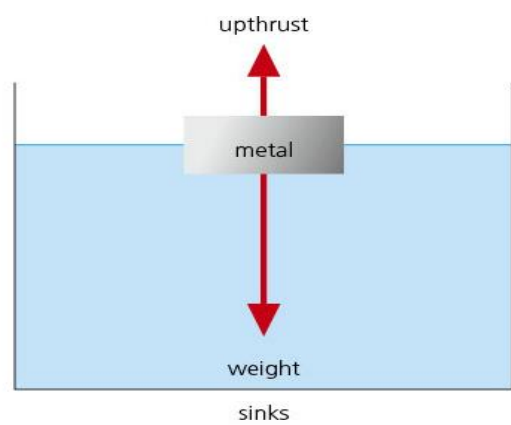
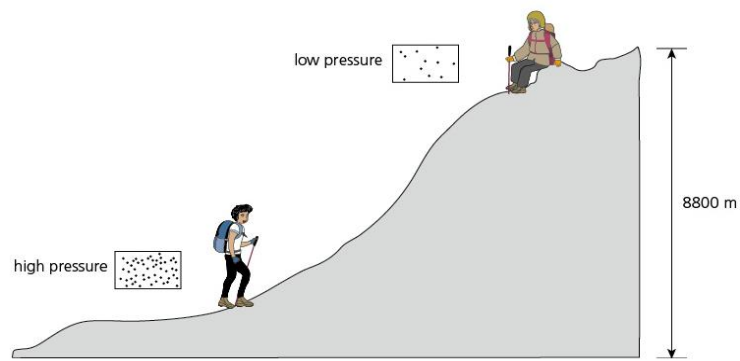
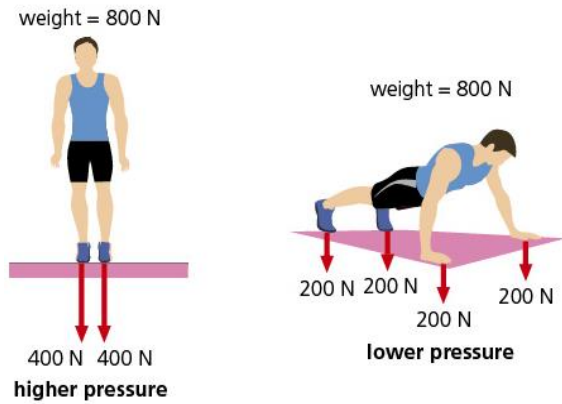
Calculating pressure

An object feels a force of 15 N on an area of 3 m². Calculate the pressure on the object.

Equation	pressure = force ÷ area $P = F \div A$
Values	$P = ?$ $F = 15 \text{ N}$ $A = 3 \text{ m}^2$
Enter values	$P = 15 \div 3$
Result	$P = 5$
Y(units)	$P = 5 \text{ N/m}^2$

Pressure in liquids	
1	Particles in liquids are already touching which means liquids cannot be compressed.
2	Liquids transfer pressure that is applied to them.
3	As water gets deeper the pressure increases because there are more water particles above, meaning there is more weight pushing down.

Key Vocabulary		
1	Fluid	Substances that flow
2	Liquid and Gases	States of matter that are fluids
3	Upthrust	Force caused by an object pushing down on an object
4	Atmosphere	A thin layer of gases around the earth
5	Pressure	The force exerted on 1m ²
6	Pressure	Force divide by area
7	Atmospheric pressure	The pressure that the air exerts on you all of the time



Chemical Reactions

Chemical Reactions	A change in which atoms are rearranged to make new substances.
Ways you know a chemical reaction has taken place	<ul style="list-style-type: none"> - Temp change - Light produced - Change of colour - Effervescence - Precipitation
Chemical/physical reactions	<ul style="list-style-type: none"> - Chemical reactions produce new substances are not easily reversed - Physical reactions don't produce new substances can be reversed.

Key Vocabulary

Catalyst	A substance that increases rate of reaction without being used up
Decomposition	Breaking down.
Effervescence	Bubbling caused by gas produced
Precipitation	Insoluble solid formed in a solution
Enzyme	Biological catalyst made of protein

Thermal Decomposition

Definition	Reaction where the reactants are broken down using heat.
General Equation	Metal carbonate \rightarrow metal oxide + carbon dioxide.

Oxidation

Definition	Where an element is chemically combined with oxygen
General equation	Metal + oxygen \rightarrow metal oxide
Word equation	Magnesium + oxygen \rightarrow magnesium oxide

Displacement reactions

Definition	Where a more reactive element displaces a less reactive element from its compound
General equation	Element 1 oxide + Element 2 \rightarrow Element 2 oxide + Element 1
Word equation	Copper oxide + magnesium \rightarrow magnesium oxide + copper

Combustion

Definition	The burning of fuel in oxygen.
General Equation	Fuel + Oxygen \rightarrow Carbon Dioxide + Water.
Word equation	Methane + oxygen \rightarrow Carbon Dioxide + Water.
Energy Transfer	Chemical energy is transferred to the surroundings as heat and light.

Conservation of Mass

Law of Mass Conservation	Mass of all reactants equals to mass of all products
Balanced Symbol Equations	An equation where there are the same number and type of atoms on each side

Calculating mass

1 22.4 g of iron reacts with 9.6 g of oxygen gas. Calculate the mass of iron oxide produced.

▼ Calculating the mass of a single product from the masses of reactants

	iron	+	oxygen	\rightarrow	iron oxide
mass of each substance	22.4 g		9.6 g		32 g
total each side	32 g			\rightarrow	32 g

Acids and alkalis

Solution	pH range	Common lab acid and alkalis
Acid	Below 7	Hydrochloric acid (HCL) Sulfuric acid (H ₂ SO ₄) Nitric acid (HNO ₃)
Alkali	Above 7	Sodium hydroxide
Neutral	7	Water

Reactions of metals

Reactants	Products
Metal + acid	Salt + hydrogen
Metal + water	Metal hydroxide + Hydrogen

Naming salts

Acid	Name of salt
Hydrochloric acid	Chloride
Sulfuric acid	Sulfate
Nitric acid	Nitrate

Testing for gases

Carbon Dioxide

Positive result

Bubble the gas through limewater; carbon dioxide turns limewater cloudy

Hydrogen

A lit splint produces a squeaky pop

Neutralisation reactions

Definition

The reaction between an acid and a base

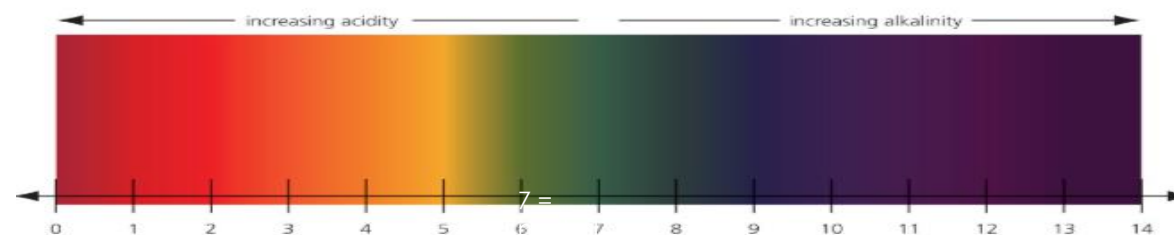
General equation

Acid + base → salt + water

Specific example

Magnesium + hydrochloric acid → magnesium chloride + hydrogen

The colours of universal indicator



Key Vocabulary

Indicator

A chemical that changes colour depending on the PH of the solution

Base

A substance which reacts to cancel out acids

Endothermic & Exothermic Reactions

Exothermic Reactions	Reactions that transfer energy to the surroundings,
Examples of Exothermic Reactions	Combustion, neutralisation
Everyday use of exothermic reactions	Reusable handwarmers
Endothermic Reactions	Process that takes in energy from the surroundings
Examples of Endothermic Reactions	Thermal decomposition,
Everyday use of endothermic reactions	Instant cold packs

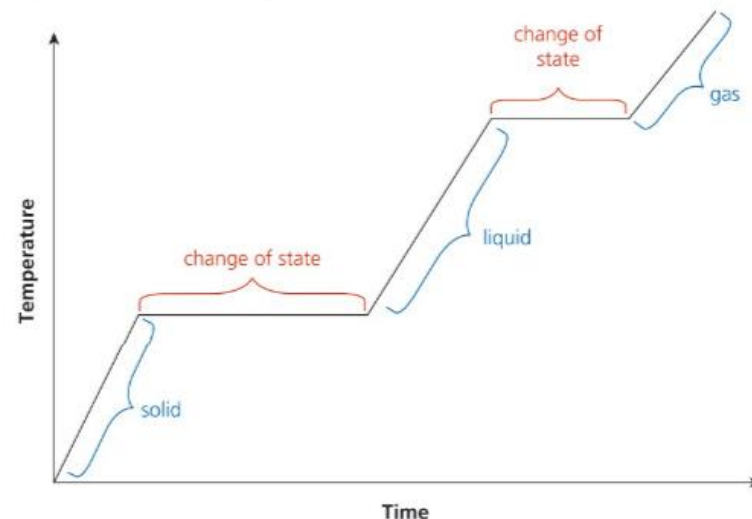
Changes of state

As a substance changes state the temperature stays the same

As a substance heats up the energy of the particles increases

As a substance cools down the energy of the particles decreases

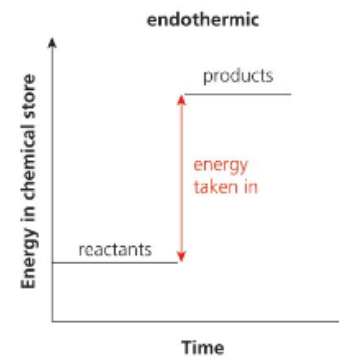
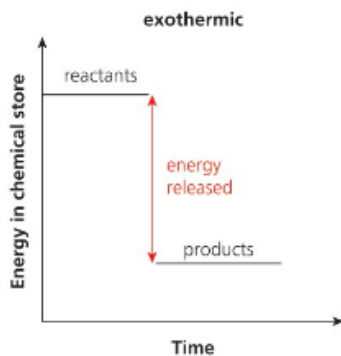
▼ Heating curve for a pure substance



Energy Level Diagrams

Energy Level Diagrams	Show the amount of energy between the reactants and products in a reaction
Exothermic Energy Level Diagram:	The energy is greater in the reactants than the products.
Endothermic Energy Level Diagram:	The energy is lower in the reactants than the products.

▼ Energy changes



Types of relationships: Marriage

1	What is the minimum legal age for marriage?	18
2	What are legal rights in a marriage?	Automatic parental rights over their child. Live together in matrimonial homes. Claim certain tax allowances aimed at married couples.
3	Why might 2 people get married?	They believe that marriage provides stability for a family. Marriage may be important to their religion, culture or tradition. Want to legally declare their love. Want additional rights and protections by law. Chosen to remain committed.
4	Freedom to consent	Marriage must always be FREELY entered into with the consent of both PEOPLE. This means each person has the right to choose if, when and who they marry and can WITHDRAW their consent if they change their mind.
5	Alternatives to legal marriage	civil partnership, unregistered marriages and cohabiting.
6	Rights in alternatives to legal marriage	Don't have the same legal duty regarding financial support. No automatic right to other's assets, put in place an agreement. Don't get certain tax allowances aimed at married couples.

Managing relationships: Strong emotions

1	What are strong emotions	Emotions are the names given to a person's feelings.
2	Challenging or difficult emotions	All emotions are important and normal. Everybody feels all emotions throughout their lives. Whilst it is ok to feel all emotions (there are no 'bad' emotions), there are good and bad ways of dealing with and expressing these emotions.
3	Examples of coping strategies	Go for a run, talk to someone, pray, listen to music, go for a walk, write in a journal, ask for help

Misogyny and Misandry

1	What is sexism	When a person is treated unfairly or judged based on their sex
2	How to challenge sexism	Be critical of the media, report it
3	How to protect yourself from sexism	Have high self-worth and develop this, have high expectations of yourself and others

The impact of family on future relationships

1	The environment provided by families and carers	A commitment to providing a loving and safe environment for a child is important. For example, through positive interactions with parents and carers, a child will learn they are valued, and they will value themselves. This will help to shape how they interact with others, inside and outside of the family.
2	Suggestions to resolve family disagreements	Make sure you communicate your thoughts to each other. Set clear boundaries that perhaps were not there before. Forgive each other (and mean it). Be aware of the external influences. Do something special together. Understand why the relationship break down.

Family planning: Parents and carers

1	What is a family?	Family- a group of people connected by blood, marriage or adoption
2	Traditional family types	Nuclear family- a couple and their children Stepfamily- a family formed through remarriage that involves a child or children Extended family- a family that extends beyond parents, such as grandparents
3	Non-traditional family types	Same-sex parents- people of the same sex raising children together. Children can be biological or adopted.
4	The purpose of a family	Help us with our basic needs (e.g. food, clothing and shelter). Keep us safe (e.g. healthcare, teaching road safety). Help us learn new things (e.g. discover our talents or show us how to behave in different situations). Provide security and stability, including during times of change (e.g. starting a new school). Give us a sense of belonging and self-esteem (e.g. spending time together, celebrating achievements). Give us love and emotional support (e.g. when we are unhappy or worried about things).
5	The purpose of parents	Build and develop Education Provide Stability

Managing yourself: Empathy

1	What is empathy?	The ability to recognise another person's feelings and respond accordingly and respectfully.
2	How does empathy link to wellbeing?	Showing empathy to others helps to support other people's wellbeing AND helps to keep someone's own wellbeing positive too.
3	Examples of situations requiring empathy	Disagreements, teamwork, helping family members.
4	Link between empathy and relationships	When a person empathises... they think about how they are making people feel... this can lead to changed behaviour... and better relationships!
5	What is active listening?	Active listening is when someone fully concentrates on what somebody else is saying and shows that they are fully listening
6	What does active listening involve?	Eye contact Nodding Repeating back what someone has said Open body language

Bullying

1	Verbal bullying	Using words directly to someone
2	Physical bullying	Physically attacking someone
3	Emotional bullying	Not usually directed to the person but designed to isolate them
4	What is a bystander?	Someone who is there when bullying occurs or knows that bullying is happening but chooses not to do or say anything about it.
3/6	What is an upstander?	Anyone who helps the person being bullied.

Resisting peer pressure

1	What is peer pressure?	Peer pressure is the process by which members of the same social group influence other members to do things that they may be resistant to, or might not otherwise choose to do.
2	Direct vs Indirect	Direct peer pressure is when a person uses verbal or nonverbal cues to persuade someone to do something. With indirect peer pressure, no one is singling you out, but the environment you're in may influence you to do something.
3	Positive vs negative	Positive peer pressure is when a person is influenced by others to engage in a beneficial or productive behavior. Negative peer pressure is the influence a person faces to do something they wouldn't normally do or don't want to do as a way of fitting in with a social group.
4	Spoken vs Unspoken	Spoken peer pressure is when someone verbally influences another person to do something. Unspoken peer pressure, on the other hand, is when no one verbally tries to influence you. However, there is still a standard set by the group to behave in a certain way.
5	Strategies to deal with peer pressure	Take your time, set your boundaries, consider your reasons
6	Tips for being assertive	Maintain eye contact if you can Hold yourself confidently, don't appear scared or aggressive Speak calmly and clearly Express yourself openly and respectfully Don't feel guilty or make excuses

Digital Citizenship

1	What is a digital citizen?	Someone who has an identity on the internet. If you have used any website, app or even watched TV online, you are a digital citizen.
2	What are key elements of being a digital citizen?	Know your rights, behave lawfully, protect your privacy and others, think about how your activity can affect you, others you know and the community.
3	What can you do when your rights have been breached?	Report it and block the user.

Consent

1	What is consent?	Giving someone permission to do something
2	What is privacy?	The right to be left alone and the right to have control over your own personal information.
3	How can you give consent?	Consent should always be verbal or written never assumed.

Respect

1	What is respect?	Having due regard for someone's feelings, wishes and rights.
2	How can you show respect to yourself?	Telling yourself well done. Not putting yourself down. Value yourself Maintain boundaries and your privacy
3	How can you show respect to others?	Treating them how I would want to be treated. Being polite when communicating with people. When disagreeing with someone, explaining why you disagree.

