# Year 8 Knowledge Organiser Term 1

This booklet contains some of the key content we want the students to learn this term.

Knowledge Organisers are placed in the relevant Google Classroom.

How students and parents can use a Knowledge Organiser to maximise learning:

• Pick a subject to recall and memorise

• Look at the pages for that subject

• Read the page information for that subject

• Cover the page of information

• Write the information for that subject from memory

• Check what you have written. Correct mistakes and add anything you have missed

• Your teacher will quiz you in class to see what you can recall

• Repeat the process over time and focus on the information you keep missing or make mistakes on





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#### Year 8 - Facial Features

#### Assessment Objectives:

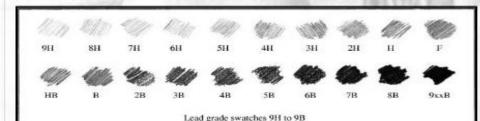
AO1 - Developing ideas through research

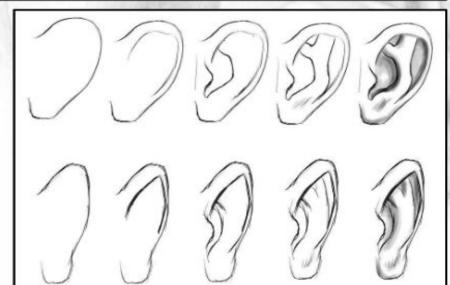
AO2 - Using resources, experimenting with different media and ideas

AO3 - Recording ideas (photos & drawings)

AO4 - Personal response

Pencil grading: H is lighter but harder- the larger the number the harder and lighter the lines, these pencils are good for technical drawings for example in Architecture or design. B is softer and darker, these are great for sketching.



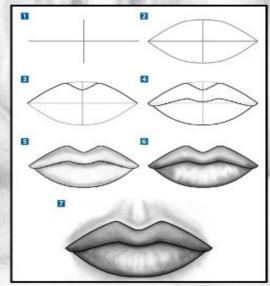


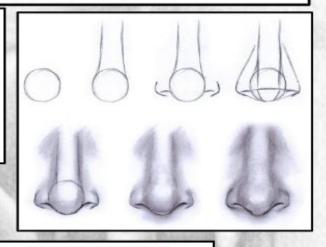
#### Overview of Topic

In this project you will explore facial features. You will begin by learning about the facial features such as how to draw an eye, mouth, nose and ears. You will focus on key skills such as shading, accuracy of shape and proportion as well as mapping out where the facial features go. Finally, you will combine your facial feature skills to create your own portrait. The final outcome will be that you can create a board showcasing your work from this term.

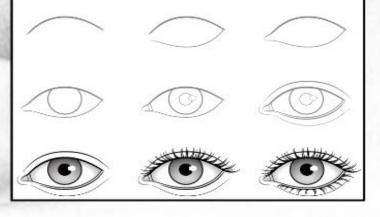
#### Making objects look 3D:

To create a 3D effect you need to add shading to your outline or 2D drawings. You should add a range of tones, areas f highlight (where light is reflected)and shade (darker areas where the light does not reach). To enhance your drawing you should also add shadows if they appear around your objects.





#### Step by step guides



# Year 8 - Clay Facial Features

#### Assessment Objectives:

A01 - Developing ideas through research

AO2 - Using resources, experimenting with different media and ideas

AO3 - Recording ideas (photos & drawings)

A04 - Personal response

Scoring and slipping:

clay will not stick.

Clay Techniques: Scoring -

#### Overview of Topic

In this project you will explore facial features even further by using ceramics to create an eye, nose and ear. You will focus on key skills such as the 4 S's. The final outcome will be that you can create a texture tile and the 3 facial features on a clay tile.

Colours for lighter skin tones

Colours for

SKIN TONES

Scoring

4 S's: SCORE it SLIP it STICK it SMOOTH it



To join together two pieces of clay they must be scored and slipped. Scoring is

clay and water that is used to help weld

the pieces together. Without the slip the

done by scratching texture (similar to hashtags: #) into the surfaces that you wish to join. Slip is a liquid mixture of

Slip -









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		=	

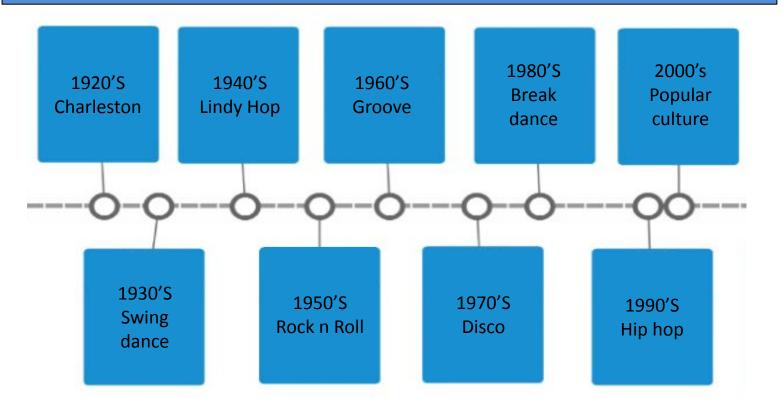
	Joining city pieces together.
Clay relief	A relief is a wall-mounted sculpture in which the three-dimensional elements are raised from a flat base.
Proportion	The size relationship between two parts e.g. height compared to width.
Shape	The outline of a 2D object.
3D	The effect of adding shade to a 2D object.
Highlight	The bright or reflective area on a piece of art or object.
Contrast	The difference between the darker and lighter areas of a shaded object in a drawing. This can be low, not much contrast or high, if there is a big difference.

Art Technique Keywords

To score a pot or piece of clay means to scratch hatch marks on it as part of ioining clay pieces together.

Flowol key t	erms				Dinadhaal	Fire-1-	
Start/End	Used to begin a flowchart in flowol		Flowol 4 3	Howol 4	Big Wheel Flowchart	A	collection of connected owchart symbol which can e followed to check the
Decision	Used to make a choice between 2 possible outcomes in a	$\Diamond$	Mimics Mimics	The selection of scenarios which can be solved by creating a flowchart.	Star	_ + _	utcome of a program
Output	flowchart  Used to control the outputs in a flowol mimic		Green Yallow Blue Val 0.0 % Car	Each mimic has its own selection of inputs and outputs.  Inputs and outputs can be from two different groups.	Button .  Turn W fd 101	res Flowol 4 Big Wheel	×
Delay	Used to slow pause a flowchart in its current state for a set length of time.		Balloon Port Starboard Mobile Helicopter Plane	a. On or Off b. Between 0 and 100%	Delay	Whee	Red Yellow Blue
Connector	Used to link the stages of the flowchart		control panel	The control panel gives control over the running of the flowchart, including play,		Button 1	Button 2
Text label	Used to add comments to flowcharts	Т		pause, stop and the running speed	Inputs	Displayed in yell	ow, can be operated by a
		_	Slow	Fast	outputs	Displayed in whi	ite, operated by the

# Year 8 Dance - Dance Through The Decades



Expressive Skills
Facial expressions Focus

Musicality Phrasing

Projection Spatial awareness

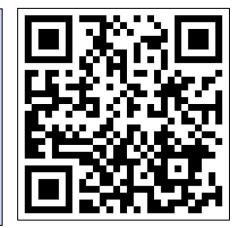
Physical Skills

Extension Posture Alignment

Coordination Control Stamina

Flexibility Balance Strength

Each lesson we will be looking at a different decade in dance history. We will be discussing the key movements of that era and each dance's stylistic features.



# Technical Skills Actions Dynamics Space Relationships Timing Movement accuracy 6

# Year 8 Dance Through The Decades

#### Charleston - 1920's

Charleston was the most popular style of dance in the 1920's. It involved some key movements that had the toes pointing in and the heels pointing out in a pivoting motion. The knees are often bent and turned in, whilst the legs are kicking both forwards and backwards. Charleston music is fast paced and has syncopated rhythms, it could be danced as a solo, in a pair or in a group.



#### **Swing** - 1940's

Swing dance was created and performed to Jazz music it is also known as the 'Jitterbug'.

The most well known swing dance is Lindy Hop; a dance of African American origin characterised by a high degree of physicality (e.g. stamina, jumps, kicks) Swing dance has some distinctive characteristics for example; Jumps, kicks, partner work, lifts, throws, pivoting on the ball of the feet with knees following.

#### Rock'n'Roll - 1950's

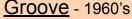
Rock and Roll requires a lot of skill and stamina and is a

highly demanding. Kicks and acrobatic elements such as lifts, throws, jumps and flips, are all

characteristic of Rock and Roll dancing. The hand jive is also a key characteristic

of rock and roll dance this involved,

hitting and clapping the hands and legs.



The 1960's was an era of fashion extremes. The later half of the decade young people wanted to reject social restrictions of the past and wanted their own style. Many embraced peace, love and freedom throughout outlandish styles and lots of bright colours.

Groove dance has lots of iconic movements that are still used today:

The swim
The twist
Mash potato

# Disco - 1970's

Disco dancing is a retro form of dancing associated with the disco music and disco dance clubs of the 1970's. Disco dancing doesn't require a partner, and can be performed solo, as a duo, or in large groups. Disco dancing typically happens on the dance floor of a club, with flashing or strobing lights, huge sound systems, and a disco ball

hanging from the ceiling. Disco dancing is usually freestyle, but some disco dances have a small amount of choreography.

#### Break dancing-1980's

Break dancing is an energetic form of dance that includes stylised footwork and athletic moves such as back spins or head spins. Break dancing originated in New York City during the late 1960s and early '70s and became popular during the 1980's. Breakdance incorporates moves from a variety of sources, including martial arts and gymnastics.Break dancing is largely improvised, versions of "standard" moves or steps, The emphasis is on energy, movement, creativity, humour, and an element of danger.

#### Hip Hop- 1990's

Hip Hop dance originated in New York City. Hop hop is considered to be an 'umbrella' dance style as it incorporates many different styles within it; for example, popping, locking, krumping, animation, waaking, house etc. Hip hop became increasingly popular in the 1990's due to the creation of 'dance battles' and one on one freestyle competitions. This is where dancers would use improvised movements and smooth transitions to compete against their opponent. Hip Hop dance requires quick thinking, artistry and a high level of musicality.

#### Popular culture - 2000's

In the 2000's (and continued through to today), many artists brought out music that had a set dance routine to go alongside it, for example: Macarena, Whip, Nae, Nae & Cha cha slide etc.

These dances then became social dances and part of popular culture as everyone knew the movement and was able to follow or copy along when in social settings.

#### Materials and their Properties: Metals & Alloys

# **FERROUS**

#### This group of metals all contain iron.

Most of these metals are magnetic and will rust if they are exposed to moisture without a protective finish.



Iron is what causes the metals to rust quicker. They tend to have a higher melting point.

# This

#### TYPES:

Name	Characteristics	Uses
Low Carbon Steel (Mild Steel)	Tough and ducfile, easily machined, formed, brazed or welded.	Construction, nails, screws, nuts and bolts Many car bodies.
High Carbon Steel	Less ductile and harder than mild steel.  Very hard wearing and keeps and edge well.	Garden or workshop tools, blades, scissors, wood and metal cutting tools.
Cast Iron	Hard but brittle. Easily cast into complex shapes but some are hard to machine.	Kitchen pots and pans, machine bases and bodies, drain covers and vices.

# SOURCE/ORIGIN

Metals come from the **ground/rocks** typically the Earth's crust - this is known as the source or origin of the material.

This is how we **extract** (remove) metals from the ground and create **iron ore**.



- The material is mined using machines the main two types are surface mining and underground mining.
- These rocks are then transported to a factory to be separated from waste material.

# NON FERROUS

#### This group of metals do NOT contain iron.

Most of these metals are not magnetic and do not rust.



Hot waste gases

Steel lined with

heat-resistant bricks

- Hot air blast

Tap hole for slag

They include precise metals such as gold, silver and platinum and others such as lead and mercury which are poisonous,

#### TYPES:

Iron ore, coke

and lime stone -

Hot air blast -- →

Tap hole for iron -

Blast Furnace

Name	Characteristics	Uses
Aluminium	Lightweight, high strength to weight ration, ductile and difficult to weld.	Pots and pans, sports car body panels, bike frames, drinks cans, foil or takeaway trays.
Copper	Ductile, malleable and a good electrical conductor.	Plumbing supplies, and electrical cables.
Tin Control	Soft, malleable and ductile, a good electrical conductor.	Used to produce cans and plating surfaces to make them last.
Zinc	Fair electrical conductivity, malleability and ductility; however, better when alloyed.	Mainly used to galvanise steel to prevent rusting.

To create the iron ore, the rocks are placed through the top of the furnace and it is heated.

As it heats, it starts to become a liquid and this sinks to the bottom.

As it becomes a liquid it is carried away from the bottom to be **refined** further into metals.

The waste material leaves in the other direction and is known as the **slag**. Waste material also leaves as gases.

# **ALLOYS**

This group of metals is a mixture of at least one pure metal and another element.

The reason metals are alloyed is so that the added element makes the metal better - it improves it in some way.

These are more difficult to recycle as the metal has been mixed with something else

#### TYPES:

Fe

Iron

55.845

Name	Characteristics	Uses
Brass	A heavy alloy of zinc and copper that is malleable, easy to cast and machine.	Musical instruments, bushes and plumbing filaments.
Stainless Steel	Hard very smooth but difficult to weld. A ferrous metal alloyed with chromium, nickel and manganese.	Cutlery, kitchen and medical equipment.
High Speed Steel	Able to withstand the high temperatures created when machining at high speed, keeps cutting edges well.	Cutting tools such as drill bits, mill cutter, taps and dies.
Duralumin	Alloy of aluminium, copper, magnesium and manganese. Creates greater hardness and tensile strength.	Aircraft components sports car wheels and casings.

# **ENVIRONMENTAL IMPACT**

Metal is considered a **finite resource** - this means that it will run out eventually as we only have a limited amount. These are some of the impacts that metal has on the environment:



- Finite resource so it will run out eventually.
- Causes air pollution from the gases that are released.
- Causes visual pollution from the mines that are created to get the raw material.
- Takes a lot of energy to produce.
- Can be recycled over and over again. The quality will always be the same as the original so the material won't weaken over time.
- Lasts a long time and so it won't need to be replaced.
- Most metals can be recycled.

#### Materials and their Properties: Textiles

# NATURAL FIBRES

Natural fibres come from 2 sources – these are plant based and animal based.

Fabrics from plant based are renewable but take a long time to grow.

# 9

#### TYPES:

Name	Characteristics	Uses
Cotton (plant)	Soft, strong and absorbent, cool to wear and easily washable. Good thermal properties.	Most clothing and can be used for denim.
Wool (animal - sheep)	Can be fine and thick, naturally warm and crease resistant.  Can shrink.	Jumpers, coats, suits and carpets.
Silk (animal - silk worm)	Very soft and fine finish, gentle, warm in winter and cool in summer. Absorbent and strong.	Luxury clothing and bed sheets.

# SYNTHETIC FIBRES

Synthetic fibres are ones that are man-made.

These can be made from recycled plastic bottles.



Name	Characteristics	Uses
Polyester	Tough, strong, hard wearing, very versatile, holds colour well and non absorbent.	Clothing, fleece garments, bedsheets, carpets, backpacks and umbrellas.
Polyamide (Nylon)	Good strength, hard wearing, non absorbent, machine washes well.	Clothing, ropes and webbings, parachutes and sports material.
Elastane (Lycra)	Added to fabric to enhance working properties, to add stretch. Freedom of movement	Sportswear, exercise clothing, swimsuits and general clothing.

# BLENDED & MIXED FIBRES

These fibres have been blended and mixed together - so natural mixed with synthetic.

#### TYPES:

Name	Characteristics	Uses
Poly-cotton	More durable than pure cotton but not as breathable. Can be produced more cheaply.	General clothing, sheets and bedding. Used as alternative to pure cotton.

# **WOVEN FABRICS**

These are fabrics where they follow a pattern - one piece goes up and over whilst the over does the opposite. Weaving.



#### TYPES:

Name	Characteristics	Uses
Plain weave e.g. muslin and calico.	Simple and cheaper to produce, stronger than other weaves.	General clothing, sheets and bedding. Used as alternative to pure cotton.

# **KNITTED FABRICS**

This is when yarn is interlocked (connect) with each other.

Weft - hand or machine and loops across the width.

Warp - these interlock vertically and less prone to unravelling and laddering.

#### TYPES:

Name	Characteristics	Uses
Knitted fabric	Warm to wear, different knits have different shapes, stretch and shape retention	Jumpers, cardigans, sportswear and tights.

# SOURCE/ORIGIN

Fabric can be sourced from many places as you can see from the table. However they are mainly **animal sources**, **chemical sources** and **vegetable sources**. Then when you've got the source this is what happens:



 This is what some of the raw fibres look like, this is once they have all been collected. E.g. you could have a pile of wool or cotton.

Then to turn this into yarn, the raw material is spun or twisted by hand or machine. It is spun and twisted until it becomes useable.



# **NON-WOVEN FABRICS**

These are fibres that haven't been spun into yarn - they have been bonded together through heat or adhesive (glue).

#### TYPES:

Name	Characteristics	Uses
Bonded fabric	Lack strength, no grain so can be cut in any direction and not fray.	Disposable products such as protective clothing
Feted fabric	Can be formed with moisture and heart - no elasticity when it has dried. Pull apart easily.	Hats, soundproofing and insulation.

So it will look something similar to this once it has been further processed, such as being dyed. Some are further processed so they become thinner and smoother.



# Environmental Impact

Here are some of the impacts that manufacturing textiles has on the environment:

- They use a lot of water in the processing stages to make sure that they are clean and useable.
- When being processed, they will release CO2 into the environment causing air pollution.
- Throw away culture due to fashion
- Almost all textiles are recyclable or biodegradable.
- Most sources of textiles are considered sustainable as they are available such as the cotton plant's and sheep's wool.
- Can be reused or donated.

#### Materials and their Properties: Papers & Boards

# **BOARDS**

The thickness of boards is measured in microns. 1000 microns = 1mm.

#### TYPES:

Name	Characteristics	Uses
Corrugated card	1000-5000 microns, strong and lightweight. Insulative and easily printed on.	Packaging, boxes and impact protection.
Duplex board	200-500gsm, stiff, lightweight coatings to improve functionality.	Cheaper version of white card used for packaging boxes. Waxy coating for protection.
Foil lined board	200-400gsm, stiff, foil reflects heat and a water and oil resistant coating enables food and liquid based products to be contained.	Takeaway containers and lids, used to retain heat for longer.
Foam board	3-10mm thick, lightweight and rigid in all directions. Can crease and crack under pressure.	Architectural models, model making, prototyping, mounting and framing of photographs.
Ink jet card	120-350gsm medium to thick card treated to hold a high quality photo image.	High quality photographic images
Solid white board	200-500gsm, stiff board, holds colour well, easily cut or creased.	Any uses including greeting cards, packaging and advertising.

# X

- Processing of paper can release chemicals into the environment which is not good for the atmosphere.
- If put into a land fill, it will release methane over time which is bad for the atmosphere.

# **PAPERS**

Paper is measured by weight in grams per square metre (GSM). This is how heavy it will be.

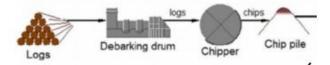
#### TYPES:

Name	Characteristics	Uses
Bleed proof paper	70gsm, coated to stop solvent based markers staining. Ink stays on the surface.	Marker pens when designing and final designs.
Cartridge paper	120-150gsm, completely opaque and more expensive.	Pencil and ink drawings, sketching and water colour.
Grid paper	Usually printed onto 80gsm paper with faint lines and often in blue.	Used for graphical, scientific and mathematical diagrams.
Layout paper	40-60gsm, semi translucent, takes pencil and most media well.	Creating sketches and working ideas.
Tracing paper	10-120gsm, translucent, takes pencil and most colour well.	Copying and tracing images.

# SOURCE/ORIGIN

Paper and boards come from finely shredded wood but has been prepared in a special way to make what you know as paper and boards. This is how they are made:

 Pulp - this is the finely shredded wood. Logs are debarked into fine chips. These are added to a chemical solution and cooked under pressure to make them into a paper pulp. These are called cellulose fibres. Depending on the colour, the fibrous liquid is then bleached or coloured.



 Sizing - this is a process where chemicals or other additives are beaten into the fibrous liquid. This stops it being so absorbent. This means it can then be photocopied, printed or painted onto.

Papers such as toilet roll or kitchen roll have little sizing so that they can absorb moisture. Otherwise they wouldn't work as toilet or kitchen roll.

3. Converting Pulp to Paper - the pulp (so the liquid fibrous) goes on a mesh conveyor belt to drain the excess water. It goes through lots of rollers to squeeze the last of the water out of the paper. Then through drying rollers, so it dries and finally through a set of calender rollers which give the paper the finish e.g. satin or matt. Here's a picture of the overall process together:

# **ENVIRONMENTAL IMPACT**

Paper is considered a **sustainable resource** which means it is something that can continue going as it can be **replenished** (replaced) for example, you cut down a tree, plant 2 new ones or a new one. Here are some of the impacts on the environment:



- Sustainable resource
- Can be recycled over and over again
- Decomposes over time if it does go into a land fill or if left on the ground.



# Improvisation

	Key Vocab	
Gibberish	Sounds that appear to be words, but actually mean nothing. Nonsense words.	
Improvisation	Performing scenes without written dialogue (speech) and with minimal predetermined outcome.	
Rehearse	Practicing a scene to improve it.	
Scenario	A description of a scene or event.	
Spontaneous	Something immediate, without preparation, on the spot.	

Improvisation Practitioners	
Keith Johnstone	Showstoppers!
Mike Leigh	The Suggestables
Open Theatre	Viola Spolin

Types of Improvisation	
Rehearsed	A scene is initially improvised, then rehearsed for a short time to improve.
Spontaneous	A scene is created and performed on the spot, without any communication within the group.
Short-form	A short scene or game that is quick and to the point. The conclusion is reached within a few minutes.
Long-form	An entirely improvised play.





Rules for Improvisation	
Always accept offers given to you by others in the scene	
Be imaginative with your ideas	
Create clear characters using physical and vocal skills	
Stay in character throughout (even if it's a funny scene!)	

	Uses for Improvisation
Comedy	Some groups use improvisation games to create comedy shows. This can involve audience participation, as suggestions are taken from the audience.
Devising	Directors and actors can use improvisation to create the foundation of a scene. This can then be developed into a longer, more detailed performance.
Performance	Improvisation can be used within performances, in instances that something goes wrong or a line is forgotten.



# Objects to Life

Key Vocab	
Body As Prop/Object	The actor creates the shape and form of a prop or object. This replaces the use of set/props and/or physical objects on stage.
Cannon	All of the actors more in the same way, in a sequence, one after another.
Ensemble	The term given to a group of actors who work closely together.
Mime	A physical performance that uses physical skills to communicate meaning to the audience.
Physical Tension	The actor uses their muscles to create physical tension within their body. This gives the performance precision and accuracy for movement and positioning.
Physical Theatre	A style of theatre where the actor uses their body as the primary tool for performance.
Soundscape	Using the body to create sounds that establish the environment/ atmosphere. This could be vocal delivery (using the mouth to create sounds) or percussive (tapping different parts of the body to create sound).
Unison	All of the actors move in the same way, at the same time.

Physical Theatre	
Practitioners	
Complicite	1
DV8	
Frantic Assembly	
Gecko	1
Splendid Theatre	1
Stomp!	1



Qualities of Movement
Fluid
Quick
Sharp
Slow
Sustained

Uses for Physical Theatre		
Replacing Props	Physical theatre can be used to replace props in the scene. This can be done through mime, or by having actors become props.	
Representing Set	Set can be replaced if there is not a budget to create it. This can be done through actors becoming aspects of the set.	

Key Skills				
Co-operation	The actions of someone who is being helpful by doing what is wanted or asked for.			
Co-ordination	on The ability to use different parts of the body together smoothly and efficiently.			
Creativity	Using original ideas to create something.			
Flexibility  The ability to change or be changed easily according to the situation.				
Imagination The ability of the mind to be creative or resourceful.				
Maturity	The state of being mentally and emotionally well-developed, and therefore responsible.			
Support	To help others and give guidance without judging or criticising			
Trust	Being able to rely on others.			



Vulnerable





#### Gothic Literature Knowledge Organiser Year 8 Autumn Term







#### Gothic Genre Word Bank

	Adjectives			Not	uns	
People	Places	Misc.	Feelings	Places	Objects	Weather
Aghast	Claustrophobic	Alarming	Anxiety	Alley	Candle	Clouds
Byronic	Deserted	Ancient	Curiosity	Attic	Chest	Darkness
Defenceless	Dismal	Antique	Despair	Castle	Chimney	Drizzle
Exposed	Extinguished	Curious	Desperation	Cellar	Ghost	Fog
Fearful	Isolated	Dusty	Determination	Chamber	Grave	Lightning
Gaunt	Macabre	Locked	Hatred	Church	Lock	Midnight
Helpless	Melancholy	Neglected	Suspicion	Graveyard	Raven	Rain
Intimidating	Obscured	Ornate	Terror	Staircase	Shadow	Storm
Looming	Ominous	Peculiar	Trepidation	Street	Shroud	Tempest
Morose	Secluded	Shocking	Unease	100000000000000000000000000000000000000	Spectre	Thunder
Pallid	Shadowy	Shrouded	Uncertainty			100000000000000000000000000000000000000
Suspicious	Sublime	Unusual	Uncanny			

Ve	rbs	Adv	erbs
Movement	Sound	Movement	Sound
Ascend	Announce	Abruptly	Authoritatively
Creep	Cackle	Cautiously	Continuously
Descend	Creak	Creepily	Creakily
Evade	Cry	Eerily	Endlessly
Hide	Gasp	Furtively	Morosely
Leap	Howl	Ominously	Silently
Lunge	Intone	Reverently	Soundlessly
Peek	Murmur	Suddenly	Wordlessly
Pursue	Shout	Surreptitiously	100 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1
Tiptoe	Shriek	Suspiciously	
Uncover	Whisper	Tentatively	

#### Stylistic Features and Methods

- Pathetic Fallacy

  When the weather reflects the tone/mood of the scene.
- Adjective Describes a noun.
- · Antagonist The villain of the story.
- Dramatic Monologue A type of poem meant to be read out by a single speaker.
- . Epistolary Narrative A story told in a series of letters.
- . Motif A dominant or recurring idea.
- Cryptid A creature whose existence is disputed due to insubstantial evidence.
- Abstract Noun An idea, quality, or state rather than a solid object, e.g. truth, danger, happiness.
- Interrogative Sentence A sentence which asks a question.
- · Olfactory Imagery Imagery to describe a smell.

#### **Gothic Conventions**

- · The use of Terror vs Horror to impact the reader
- Isolated, remote and bleak settings and often that are dark or decaying
- A focus on the evil held within man and what we hide from those around us.
- Supernatural entities
- · The deaths or murders of characters
- · Frequent use of colours such as black, white and red
- Rational protagonist who doesn't believe in the supernatural
- · Presence of evil/religious imagery
- Inhuman or monstrous antagonist
- Use of tension and suspense to create fear

#### Food hygiene

Good food safety and hygiene practices are essential to reduce the risk of food poisoning.

#### Food poisoning

Food poisoning can be caused by:

- bacteria, e.g. through cross-contamination from pests, unclean hands and dirty equipment, or bacteria already present in the food, such as salmonella:
- physical contaminants, e.g. hair, plasters, egg shells, packaging; · chemicals, e.g. cleaning chemicals.

Bacterial contamination is the most common cause. Microorganisms occur naturally in the environment, on cereals. vegetables, fruit, animals, people, water, soil and in the air. Most bacteria are harmless but a small number can cause illness. Harmful bacteria are called pathogenic bacteria.

The process of food becoming unfit to eat through exidation. contamination or growth of micro-organisms is known as food spoilage.

#### Bacterial growth and multiplication

All bacteria, including those that are harmful, have four requirements

- to survive and grow: food:
- moisture:
- warmth:
- · time.









#### temperature your fridge should 75°C – if cooking food, the core temperature, middle or thickest

temperature. 75°C - if reheating food, it should reach at least this temperature. In Scotland food should reach at least 82°C.

part should reach at least this

Temperatures to remember

temperature control is vital:

To reduce the risk of food poisoning, good

5-63°C – the danger zone where

temperature for cold food, i.e.

bacteria grow most readily.

optimum temperature for

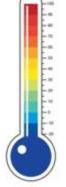
37°C – body temperature.

5°C (or below) – the ideal

bacterial growth.

your fridge.

8°C – maximum legal



#### Allergen and food intolerance awareness

There are 14 ingredients (allergens) that are the main reason for adverse reactions to food. Crosscontamination of food containing these allergens must be prevented to reduce the risk of harm. They must also be labelled on pre-packaged food and menus so that consumers can make safe choices. The 14 allergens are:

Celery (and celeriac) Cereals containing gluten Crustaceans Eggs Lupin

Molluscs Mustard Nuts Peanuts Sesame Sovbeans Sulphur dioxide

#### Where should food be stored in the fridge?

#### Cheese, dairy and egg-based products

The temperature is usually coolest and most constant at the top of the fridge, allowing these foods to keep best here.

#### Cooked meats

Cooked meats should always be stored above raw meats to prevent contamination from raw meat.

#### Raw meats and fish

Raw meats and fish should be below cooked meats and sealed in containers to prevent contamination of salad and vegetables.

#### Salad and vegetables

These should be stored in the drawer(s) at the bottom of the fridge. The lidded drawers hold more moisture, preventing the leaves from drying out.

#### Key terms

Allergens: Substances that can cause an adverse reaction to food. Cross-contamination must be prevented to reduce the risk of harm.

Bacteria: Small living organisms that can reproduce to form colonies. Some bacteria can be harmful (pathogenic) and others are necessary for food production, e.g. to make cheese and vogurt.

Cross-contamination: The transfer of bacteria from one source to another. Usually raw food to ready-to-eat food but can also be the transfer of bacteria from unclean hands, equipment, cloths or pests. Can also relate to allergens.

Food poisoning: Illness resulting from eating food which contains food poisoning microorganisms or toxins produced by micro-organisms.

High risk ingredients: Food which is ready to eat, e.g. cooked meat and fish, cooked eggs. dairy products, sandwiches and ready meals.

#### Task

Create a poster highlighting the top tips for ensuring food is safe to eat. Include personal hygiene, safe storage, preparation and cooking of food.

To find out more, go to: https://bit.lv/2Z97B5f

#### High risk food

Bacteria easily multiply on foods known as 'high-risk food'. These are often high in protein or fat, such as cooked meat and fish, dairy foods and eggs. Cooked pasta and rice are also regarded as high risk foods if they are not cooled quickly after cooking and stored below 5°C.

Symptoms of food poisoning

#### Moisture

People at risk

the food they eat.

Why clean?

Bacteria need moisture to survive. Dried foods, such as powdered milk, cereals or dried egg do not support bacterial growth, if properly stored. However, if moisture is added, any bacteria still alive can quickly begin to multiply.

Elderly people, babies and

anyone who is ill or pregnant

To remove grease, dirt and

grime, and prevent food

poisoning and pests.

needs to be extra careful about

Reheat food only once and eat leftovers within 48 hours.

When bacteria spend enough time on the right types of food, at warm temperatures, they can multiply to levels that cause illness.

You've got until the end of this date becomes too risky to eat.

USE BY:

25/08/20

KEEP

REFRIGERATED

quality.

Best-before-date

hands.

25/08/21

COOL DRY PLACE

#### poisoning include: nausea: vomiting: · stomach pains: diarrhoea.

The symptoms of food

#### Use-by-date

to use or freeze the food before it

BE ST BEFORE:

Getting ready to cook

Remove blazers/iumpers

and roll up long sleeves.

ties or head coverings.

Put on a clean apron.

Thoroughly wash and dry

You can eat food past this date

but it might not be at its best

Tie up long hair and tuck in

STORE IN A

#### Fish in the diet

Fish is a popular food in many cultures, although many people in the UK do not consume as much fish as is recommended.

Eating a wide variety of fish and buying fish from sustainable sources ensures there are enough fish to eat now and in the future.

#### Recommendations

Fish is part of the Beans, pulses, fish, eggs, meat. and other proteins food group in the Eatwell

Around one-sixth of the food that people consume should come from this group in the diet. It is recommended to consume two portions (one portion is 140g) of sustainably sourced fish per week.



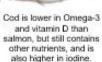
#### Nutrients provided by fish

Fish provides a range of nutrients, including:

- · Omega-3 fats (in some fish);
- protein:
- vitamin D (in some fish);
- B vitamins:
- iodine.







#### Types of fish and shellfish

There are over 33,000 fish species in the world. but people often prefer to eat a few species that are easier to catch and eat.

The 'big five' are the most common seafood items that are eaten in the UK. They are:

- · cod:
- haddock:
- tuna:
- salmon: · prawns.

#### Oily fish

The UK Eatwell Guide states that one of the recommended two portions of fish a week should be oily.

Salmon and trout are classified as 'oily fish'. which means they contain a type of healthy fat called Omega-3. Mackerel, herring, and sardines are types of small oily fish that are mostly sold in cans.

#### White fish

Cod and haddock are the most popular fish in the UK. They are flaky, white fish when cooked. Most of the cod and haddock eaten in the UK is breaded or battered

Plaice, sole, halibut and turbot are all types of flatfish that are classed as white fish.

#### Shellfish

Shrimp and prawns are a wide group of small shellfish. The words 'shrimp' and 'prawn' are used to describe many different species.

Mussels and oysters are 'bivalve molluscs'. Bivalve means that they have two shells that close around the soft body inside. Cockles. whelks, and winkles are small shellfish that are common around the UK.

#### Task

Create a poster featuring facts and figures about the 'big five'. Include ideas about how they can be used in meals.

#### Catching fish

Fish can be found in freshwater (rivers and lakes) or saltwater (seas and oceans). Fish can be caught in the wild or farmed. Fish can be caught in many different ways. using rods, lines or nets.

#### Fishing at sea

Most fishers go out to sea in boats and use nets to catch a large number of fish at one time. When the boat is in the right position, the fishers drop their nets. Once dropped, the boat then tows the net around, scooping up fish. This is known as trawling.

Some fish are caught on lines, rather than nets. Some other fish, like mackerel, can also be caught on lines by a method called 'trolling'. Trolling is similar to trawling, but instead of dragging a net, the boat drags many lines with hooks to catch the fish.

#### Preparing fish

Whole fish usually require preparation before they can be

This could include: descaling gutting, filleting and pin boning

#### Cooking with fish

Fish can be cooked in a variety of ways, such as being grilled, baked, sautéed, fried, or barbequed.

Grilling and baking are usually healthier cooking methods, and they can also help to bring out the flavour of many fish.

Key terms Oily fish: A fish that contain a type of healthy fat called Omega-3. Omega-3: A type of polyunsaturated fatty acid found in fish. Shellfish: An aquatic shelled mollusc or crustacean that is edible. MSC: Marine Stewardship Council logo, a logo that means

fish has been caught

sustainably.

#### Wild fishing

#### Advantages

· Wild fish have a more varied diet than farmed fish and therefore may taste different.

#### Disadvantages

- Can be less sustainable due to overfishing and may become more expensive.
- Nets can damage the seabed.





#### Farming fish

#### Advantages

- · Prevents wild fish from being overfished.
- Can provide fish to communities where wild fish is scarce.
- Can allow for fish to be farmed that are hard to

#### Disadvantages

- Disease can be more common if many fish are kept close together.
- Farmed fish may harm wild fish if they escape.
- If waste from the fish farm is not disposed of correctly it can cause pollution.

To find out more, go to: https://bit.ly/3erbBIU

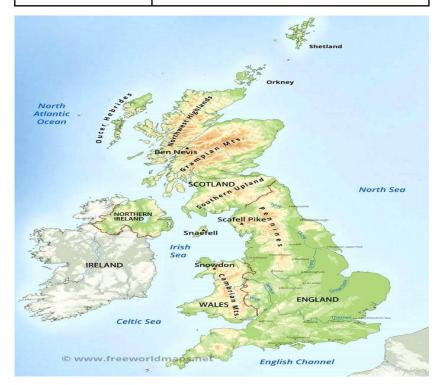
#### Sustainability

Because of the popularity of some fish, the numbers of some species have decreased. The MSC logo means that this fish has been caught in a way that is more sustainable.

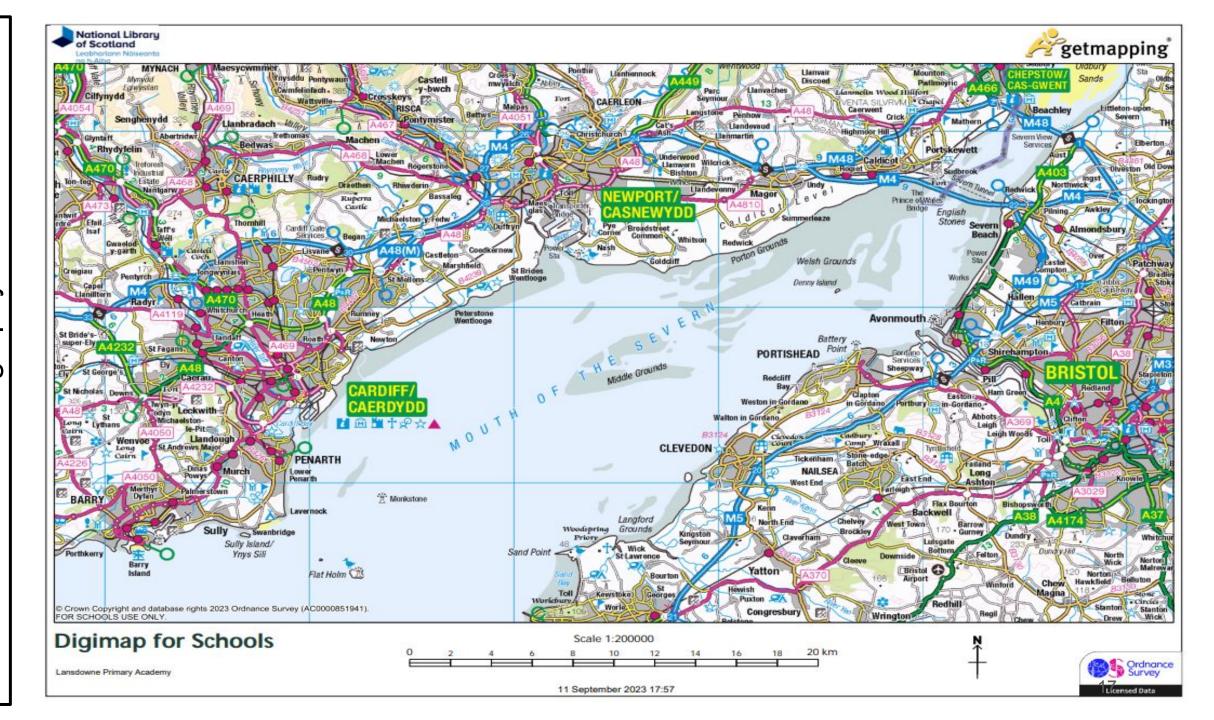


Logo© Marine Stewardship Council

Key term:	Definition:	
Drainage basin	An area of land drained by a river & its tributaries.	
Source	The origin of the river	
River channel	The journey taken by the river from source to mouth	
Tributary	A smaller river or stream	
Confluence	The point at which the main & tributary rivers meet	
Estuary	The lower course of the river	
Mouth	The point at which the river enters the sea	
Meander	A bend in the river	



Processes:	Explanation:	Example:
Drainage basin	A drainage basin is an area of land drained by a river and its tributaries and is important when studying the changes in the characteristics of the river from source to mouth.	The drainage basin of the River Thames covers a large geographic area from the Chiltern Hills (source) to the North Sea (mouth)
Upper course	The upper course of the river is located in upland areas and has a narrow and shallow river channel and is dominated by landforms of fluvial erosion.	The High Force Waterfall on the River Tees is the tallest in the UK.
Middle course	The middle course of the river has a gentle gradient and is dominated by lateral erosion and deposition.	The middle course of the river is dominated by urban areas as the river meanders through the landscape e.g. London
Lower course	The lower course of the river has a flat gradient and is dominated by the river estuary as well as industries & urbanisation.	The Thames estuary has some major ports such as Tilbury Port & Corringham Gateway Port.
River flooding	A river will burst its banks when it has become inundated by precipitation due to a storm. This will flood the surrounding areas.	Major rivers in the UK such as the River Severn are prone to flooding due to the number of urban areas built on floodplains and at confluence points e.g. Tewkesbury.



#### What was the British Empire?

The British Empire was a group of countries that were taken over and ruled by Britain. They took many forms including dominions which had some degree of power, including their own parliament, and colonies which were ruled directly from London.

#### Why did Britain want an empire?

Britain had many reasons to want an empire. Economically, the rich natural resources available in Africa, Asia and the Pacific earned the country a lot of money as goods were imported and exported. Politically, it made Britain a very powerful country and allowed the spread of their influence across the world.

#### Key words

Empire Countries, land or colonies under the control of another country Colony: a country/territory under the control of a more power country

Imperialism: the desire to control other countries

Exploration the action of exploring an unfamiliar area.

**New world:** North America and South America together are often called the "New World". From when Europeans discovered these two continents in the late 15th century. So, to the Europeans, these lands were new compared to the older civilisations. **Indigenous:** The first or original people to live in a place; also called the natives.



#### The British Empire 1600-1900

Year 8



INEQUALITY





#### The Transatlantic Slave Trade

Between the 16th and the 19th century, millions of Africans were forcibly enslaved and transported to the NEW WORLD. They faced life working on a plantation for no renumeration.

The Slave Trade operated on the **Triangular Trade Route**. This operation involved ships sailing from Britain to Africa to pick up slaves, selling them in the Americas before taking sugar, tobacco and cotton back to Britain to sell on for huge profits.

The **Middle Passage** was the alternative name for the SECOND LEG of the Trade Route which involved a 12-week journey across the Atlantic Ocean. Slaves were kept in appalling conditions below deck, with many succumbing to their illnesses and injuries

Slave Auctions Slaves were sold in cattle-like auctions to Europeans looking for labour to work on their plantations. A strong, healthy male could fetch up to \$500 whilst the ill, inform and children would be sold for discount at a **SCRAMBLE AUCTION**.

Britain benefitted in many ways from its people's participation in the Slave Trade. The government, banks, factories and the Great British public were all benefactors.



#### The British Empire in Australia

The British Empire in Australia Despite being a barren and desolate land, Australia was important to the British Empire as a penal colony. It provided a destination for British prisoners to be sent to as prison's in England and Wales were dangerously overcrowded. Prisoners helped public works like road laying and bridge building.



#### The British Empire in Ireland

Ireland was Britain's oldest colony. It was first claimed for England by Henry II in 1171. The British passed discriminatory laws and ruled with an iron fist to make sure her closest neighbour did not cause her any trouble.



#### Attitudes to the Empire (I)

Attitudes to the empire in Britain were good. People celebrated 'Empire Day', children read comics about daring British explorers in the colonies and leading members of the government declared the British Empire to be the saviour of people in Africa, Asia and elsewhere



#### Attitudes to the Empire (II)

Attitudes to the empire changed significantly in the colonies. Many people felt as though the British had stolen their resources and given nothing back in return. The British government turned to propaganda to change people's minds.



# Knowledge Organiser: Inequalities

#### What you need to know:

Representing Inequalities on a Number Line

On a **number line** we use circles to highlight the key values:

is used for less/greater than

is used for less/greater than or equal to

State the values of n that satisfy:

$$-2 < n \le 3$$

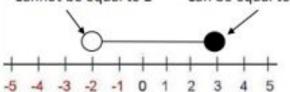
Cannot be equal to 2 Can be equal to 3

-1, 0, 1, 2, 3

b) Show this inequality on a number line:

Cannot be equal to 2

Can be equal to 3



#### Reminders:

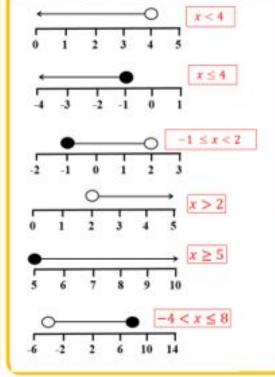
x < 2 means x is less than 2

 $x \le 2$  means x is less than or equal to 2

x > 2 means x is greater than 2

 $x \ge 2$  means x is greater than or equal to 2

#### Representing Inequalities on a Number Line



#### Key Terms:

Inequality: The relationship between two expressions that are not equal

Integer: A whole number

**Solve:** Find a numerical value that satisfies the equation or inequality

Inverse operation: The operation that reverses the effect of another operation e.g. subtraction in the inverse of addition

#### You need to be able to:

- Show inequalities on number lines
- Write down whole number values that satisfy an inequality
- Solve simple linear inequalities in one variable, and represent the solution set on a number line
- Solve two linear inequalities in x, find the solution sets and compare them to see which value of x satisfies both
- Solve linear inequalities in two variables algebraically
- Use the correct notation to show inclusive and exclusive inequalities.

# Knowledge Organiser: Inequalities

#### What you need to know:

Solving Inequalities (one unknown)

Solve this inequality and represent your answer on a number line:

$$5x-6 \le 14$$
+6
+6
 $5x \le 20$ 
+5
+5
 $x \le 4$ 

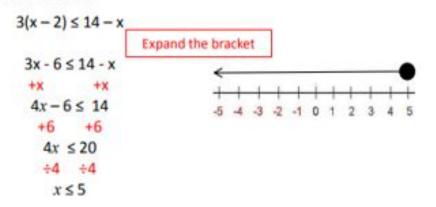
Solve the inequality with the same steps as solving an equation

Solve this inequality and represent your answer on a number line:

> When there are two inequality signs, you must solve both sides of the inequality to give a range of answers

#### Solving Inequalities (unknowns on both sides)

Solve this inequality and represent your answer on a number line:



Work out the integer values of x that satisfy both inequalities:

$$3x-4 \le 11$$
  $2x+3>9$   
 $+4$   $+4$   $-3$   $-3$   
 $3x \le 15$   $2x>6$   
 $\div 3$   $\div 3$   $\div 2$   $\div 2$   
 $x \le 5$   $x>3$ 

 $x \le 5$  and x > 3 so x can be 4 or 5

# Maths

# **Systematic Listing**

-	7	:	-	
	1	۲		
4	7	۲	*	

Topic/Skill	Definition/Tips	Example
1.	A collection of things, where the order	How many combinations of two
Combination	does not matter.	ingredients can you make with apple,
		banana and cherry?
		Apple, Banana
		Apple, Cherry
		Banana, Cherry
		3 combinations
2. Permutation	A collection of things, where the order	You want to visit the homes of three
	does matter.	friends, Alex (A), Betty (B) and
		Chandra (C) but haven't decided the
		order. What choices do you have?
		ABC
		ACB
		BAC
		BCA
		CAB
		CBA
		21

3.	When something has $n$ different types,	How many permutations are there for a
Permutations with	there are <i>n</i> choices each time.	three-number combination lock?
Repetition	Choosing $r$ of something that has $n$ different types, the permutations are: $n \times n \times (r \text{ times}) = \mathbf{n}^r$	10 numbers to choose from $\{1, 2,10\}$ and we choose 3 of them $\rightarrow$ $10 \times 10 \times 10 = 10^3 = 1000$ permutations.
4.	We have to reduce the number of	How many ways can you order 4
Permutations without	available choices each time.	numbered balls?
Repetition	One you have chosen something, you cannot choose it again.	$4 \times 3 \times 2 \times 1 = 24$
5. Factorial	The factorial symbol '!' means to multiply a series of descending integers to 1.	$4! = 4 \times 3 \times 2 \times 1 = 24$
	Note: 0! = 1	
6. Product	If there are $x$ ways of doing something and	To choose one of $\{A, B, C\}$ and one of
Rule for	y ways of doing something else, then there	$\{X,Y\}$ means to choose one of
Counting	are xy ways of performing both.	$\{AX, AY, BX, BY, CX, CY\}$
		The rule says that there are $3 \times 2 = 6$
		choices. 22

# Calculator buttons

A scientific calculator can work out complicated calculations, including fractions, very quickly. The buttons vary on different calculators, so make sure you know how your own calculator works.

#### Index buttons

Use these buttons to work out powers and roots.

- squares a number
  - cubes a number
- square root
- cube root
- higher powers

On some calculators this button is labelled

numbers in standard form.

For a reminder on powers and roots turn to page 9. For a reminder on standard form turn to page 10.

# **Entering fractions**

You can use the and and buttons and the arrow keys to enter fractions and mixed numbers.

To enter  $\frac{2}{3}$  press and then press 2 to enter the numerator. Then press the down arrow and press 3 to enter the denominator.

To change an answer on your calculator from a fraction to a decimal, press the key. Experiment using your own calculator.

## Problem solved!

If you can't work out what calculation to do, try using easier numbers. If an egg has a mass of 80 grams and there are 12 in a box the total mass is  $12 \times 80 = 960$  grams. So to find the total mass you need to multiply the two numbers.

You will need to use problem-solving skills in all areas of maths – be prepared!



## Worked example



A grain of sand has a mass of  $4.4 \times 10^{-6}$  kg. There are  $5.1 \times 10^{9}$  grains of sand on a beach volleyball court. Estimate the total mass of the sand on the beach volleyball court.

 $5.1 \times 10^9 \times 4.4 \times 10^{-6} = 22440 \text{kg}$ 

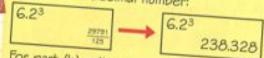
To enter 4.4 × 10<sup>-6</sup> on your calculator press and enter the second number. You don't have to press before sign.

## Worked example

- (a) Work out 6.23 238.328
- (b) Find the value of \(\integet{60}\) correct to 2 decimal places.

7.745966692 = 7.75 (2dp)

Use the button for part (a). You might need to use the button to get your answer as a decimal number:



For part (b) write down all the digits from your calculator display before rounding your answer.

# Warm Ups

There are three phases to a warm up:

- 1) Pulse Raiser
- 2) Stretching
- 3) Drills

# Warm Ups

Reasons for the warm up

- It physically and mentally prepares you for exercise
- It increases oxygen delivery to the working muscles
- Prevents injury

	Component	Definition	Sport
	Agility	The ability to change direction whilst maintaining speed	Tennis
	Balance	The ability to maintain the body's centre of mass above the base of support	Balance Beam
	Coordination	The ability to use two or more body parts together	Table Tennis
	Muscular Endurance	The ability to use voluntary muscles repeatedly without tiring	Rowing
	Strength	The amount of force a muscle can exert against a resistance	Weightlifter
PE	Cardiovascular Fitness	The ability of the heart, lungs and blood to transport oxygen	Marathon
	Body Composition	The percentage of body weight which is fat, muscle and bone	Gymnast
	Flexibility	The range of motion (ROM) at a joint	Diver
	Power	The ability to perform strength performances quickly	Basketball Rebound
	Reaction time	The time taken to respond to a stimulus	Sprint Start
	Speed	The ability to put body parts into motion quickly	100m Sprint

# **Health**

"A state of complete emotional, physical and social wellbeing; not merely the absence of disease of infirmity"

Type of Health	
Social	The ability to interact with others.  Adapt to social situations  To form relationships.
Physical	Physical health refers to a person's level of fitness and being free from illness.
Emotional	Emotional health refers to how you feel about yourself. You should feel relaxed and have a positive attitude towards life.

#### Islam Knowledge Organiser

#### Books (kutub)

Muslims believe that Allah revealed holy books to other prophets who came before **Muhammad**. These books are called 'revealed' books, or **kutub**, meaning that Muslims believe they originally contained the same message as the **Qur'an**.

And We sent ... Isa [Jesus], the son of Maryam [Mary], confirming that which came before him in the Torah; and We gave him the Gospel, in which was guidance and light and confirming that which preceded it of the Torah as guidance and instruction for the righteous.

#### The Qur'an

According to Islamic belief, the meaning of the books revealed by God prior to the Qur'an has become unclear, because Allah's word has been mixed with texts created by people. Therefore, only the Qur'an is accepted as the true word of Allah. In Surah 5:48, Muslims find the following teachings about the **revelation** of the Qur'an:

The Qur'an was revealed to Muhammad as God's truth.

The Qur'an confirms the revealed books that came before it but takes priority over all of them. Where any of the other scriptures appear to be **contradictory** to the Qur'an, the teaching in the Qur'an is correct.

The Qur'an sets out how people should live, and other incorrect scriptures and teachings exist to test people's faith.

The Qur'an is regarded as the final revelation from Allah to the Prophet Muhammad. It was revealed to him in Arabic. The Qur'an is therefore different from any other book for Muslims because it contains the direct and final revealed words of Allah.



	Key Terms
ISLAM	Is the religion, it means 'PEACE'
MUSUMS	People who follow Islam
MOSQUE	Islamic place of worship
SALAT	The belief that as a Muslim must do prayer every day to perform the 5 pillars of Islam.
Jihad	To struggle
Lesser Jihad	Also called a holy war, it must be approved by a religious leader, fought in self-defence and not used to either convert people to Islam or gain land. There are rules about how lesser jihad can be carried out: it must be in defence of Allah, no harm must be done.
Greater Jihad	The struggle against the lower self – the struggle to purify one's heart, do good, avoid evil and make onesel a better person.
ZAKAT	(Charity Muslims must give 2.5% of their disposable income (savings) to Charity
SAWM	(fasting) Muslims do not eat during daylight hours for the month of Ramadan
HAJI	is a pilgrimage that Muslims must go on before they die as it is the 5th and final pillar



# SLAM KNOWLEDGE ORGANISER



#### Overview

Islam is one of the world's major religions. It is the world's 2<sup>nd</sup> largest religion, with about 1.8 billion followers.

Muslims are the people who follow Islam. They believe in one God who created everything - he is called Allah (the Arabic name for 'God').

Muslims believe in a messenger of Allah, named Muhammad. They view him as the final prophet, following Adam, Abraham, Moses, Jesus and others.

Muhammad is believed to be the person who founded the faith of Islam, about 1,400 years ago.

The holy book in Islam is called the Our'an. A mosque is a building designed for Muslim worship.

Around 2.5 million Muslims each year take part in the annual 'hajj' pilgrimage to Mecca.



#### Answers to Important Questions and Key Vocabulary

Where do Muslims worship God?



-Muslims pray in a building called a mosque. -The word for mosque in Arabic is 'masiid.' Most masjids have at least one dome, and many also have one or two towers.

-Muslims take off their shoes before entering the mosque to pray. This is a sign of respect.

 On Fridays at noon, the most important religious service of the week is held in the mosques.

What is the Our'an?

Where do most

Muslims live in

the world?

How many

different types

of Muslims are

there?



The Qur'an is the holy book of Islam. Muslims believe that the Our'an contains the holy words of God. which teaches them the right path. Other important books in Islam are the Sunnah (about Mohammad's life) and the Hadith (the words of Mohammad).

-There are about 50 countries around the world in which Islam is the largest religion.

 The Arab world (the Middle East and Northern Africa) accounts for about 20% of all Muslims.

-There are also millions of Muslims from Indonesia, Pakistan, Bangladesh and India.

-China, Iran and Turkey also have many Muslims. After Christianity, Islam is the 2<sup>nd</sup> largest religion in most European countries.

-There are two main types of Muslims - Sunni Muslims and Shia Muslims, Although all Muslims

follow the Qur'an and the five pillars of Islam, they also have some differences. Sunni Muslims believe that leadership of the community (and the 'caliph' leader) should be elected from the community. Shig believe that leadership should stay within the prophet's family, or be chosen by Allah,

#### **Key Vocabulary**

Allah

Muhammad

**Our**'an

Five Pillars

Ramadan

Eid

Mosque

**Prophet** 

Hadith

Sunni

Shia

Caliph

#### Top 10 Facts!

- 1. Friday is the Muslim holy day. People go to the Mosque and pray.
- 2. Islam is the fastest-growing religion in the
- Muhammad was born in Mecca which is now in Saudi Arabia. It is considered a holy place.
- 4. The very first mosque was in the courtyard of the home of the prophet Muhammad.
- 5. The Ka'ba is an ancient shrine in Mecca that Muslims believe is the holiest place on earth.

- Muslims believe that Allah told Muhammad exactly what to write in the Qur'an.
- 7. The Qur'an has a total of 144 chapters. Many Muslims try to memorise the entire Qur'an!
- 8. Muslims are called to prayer by a muezzin, a man who sings through a loudspeaker.
- 9. About 23% of the global population are
- 10. The "Islamic World" refers to the Middle East, North Africa, and parts of South East Asia.

#### Muslim Beliefs



#### Laws and Customs

There are many laws and customs outlined in the Qur'an, that Muslims should follow.

-They must dress modestly, e.g. many Muslims wear long dothes that cover their bodies, and women wear a hijab which covers parts of their hair/face. Food must be halal, meaning animals must be billed in a certain way.

#### Ramadan

-Ramadan is the ninth month of the Islamic calendar. It is a month in which Muslims worldwide take part in fasting.

-For the whole of the month, Muslims do not eat during daylight hours. Instead, they devote themselves to prayer and to Allah.

#### The Five Pillars of Islam

-The Five Pillars of Islam are the behaviours and beliefs by which Muslims must live their lives. They were founded in the hadith of Gabriel.



1. Shahadah: the declaration of faith: 'There is no God but Allah, and Mohammad is his messenger.' 2. Salah: the five daily prayers. 3. Zakah: Giving money to help the poor. 4. Sawm: Committing to fasting during the month of Ramadan. 5. Hajj: A religious pilgrimage to Mecca that Muslims should undertake at least once in their lives.

#### Muhammad



- Muslims believe that God sent his final message to Earth through Muhammad, 1400 years ago. He is considered so holy that Muslims say 'peace be upon him' whenever they say or write his name.
- -When he was around 40 years old, Muhammad is believed to have been approached in a cave by the angel Gabriel, who sent 'revelations' from Allah. He continued to receive these messages, and to teach them to others.
- -The messages that Muhammad received were later collected and made into the Qu'ran. Muslims believe that they should follow the example set by Muhammad throughout their own lives.

#### Islam Timeline

Beginning of time: Allah creates the world and everything in it.

Around 570CE: Muhammad is

c.6toCE: Muhammad receives the first born in Mecca. revelation from Gabriel

c.622CE: Muhammad reaches Medina. Beginning of Islamic calendar.

c 630CE: Muhammad returns to Mecca. People accept Islam.

c.633CE: Muhammad dies. Abu-Bakr made caliph (leader).

c.655CE: Islam spreads from the Middle East through North Africa.

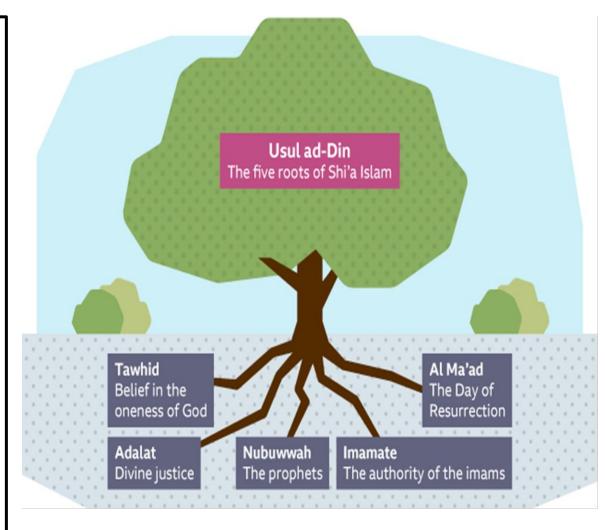
c.tt2oCE: Islam spreads to South-East Asia.

c 1979CE: Iranian Revolution forms state of Iran - first attempt at an Islamic state.

# Tawhid - Belief in one God Al Qadr - Belief Malaikah - Belief in predestination in angels The six articles of faith in Sunni Islam Kutub - Belief Akhirah - Belief in the Day of in holy books Judgement and the afterlife Nubuwwah - Belief in the prophets

# **Sunni 6 Articles of Faith**

- **1.Belief in one God (Tawhid)** This means having absolute faith in the oneness of God. Allah is simply the Arabic word for God. It has no plural in Arabic, which shows that there is only one God. Muslims believe that no being is like Allah.
- **2.Belief in angels (malaikah)** Muslims believe that God's greatness means he cannot communicate directly with humans. Instead, God passed messages, called **risalah**, to his prophets via the angels, called malaikah, who were his first creation and who always obey him.
- **3.Belief in holy books (kutub)** The holy books of Islam should be respected. This is especially true of the Qur'an, which is the unchanged word of Allah, revealed to the Prophet **Muhammad**.
- **4.Belief in the prophets (nubuwwah)** Allah is believed to have communicated with the prophets, called nubuwwah, through the angels. Muslims believe the prophets should be respected but never worshipped.
- **5.Belief in the Day of Judgement and the afterlife (Akhirah)** Muslims believe that life on Earth is a test and that, after they die, they will be judged by God and sent to either Paradise or Hell.
- **6.Belief in predestination (Al-Qadr)** This means that everything in the universe follows Allah's masterplan Muslims believe that Allah has decided everything that happens. This shows the importance of God's will: In all things the master-planning is God's (Surah 13:42). The Prophet Muhammad also told his followers: There is not one amongst you who has not been allotted his seat in Paradise or Hell (Sahih Muslim, Book 33, Hadith 6400). Muslims take this as further proof that every person's life is already mapped out in Allah's plan.



There are five key principles of faith in **Shi'a** Islam, known as the five roots of Usul ad-Din. The image of a tree with five roots is often used to show that these principles are the foundations of the faith.

#### The Five roots Usul-ad-Din in Shi'a Islam

**1.Tawhid** The belief that God is one and that he is almighty and worthy of worship. The **Qur'an** states that God cannot be thought of as having separate parts: "He is the Originator of the heavens and the earth. How could He have a son when He does not have a companion and He created all things? And He is, of all things, Knowing."

**2.Adalat (divine justice)** Shi'a Muslims believe that Allah is always right and fair (**Adalat**). Sometimes Allah may act in ways that are beyond human understanding, but ultimately the world has been designed to be fair. The Qur'an teaches that God will not burden anyone with more than they can bear because he is fair to everyone (Surah 23:62).

Muslims believe that there will be a **Day of Judgement**, where they will prove their faith and take responsibility for their actions on Earth. The Qur'an explains that all good deeds benefit the soul, but each person is also responsible for the things that they have done wrong. Allah will always judge people with justice and fairness (Surah 41:46).

**3.Nubuwwah (the prophets)** The prophets, known as **nubuwwah**, provide guidance from God and should be respected. The Prophet **Muhammad** was God's final prophet and communicated the Qur'an to human beings.

The Qur'an says the following about the messengers who were sent by God:

They were sent to stop humankind from straying from Islam and to bring good tidings and warnings (Surah 2:213). They were sent into all communities to tell people "to worship Allah and shun false gods" (Surah 16:36). They were sent to educate people who couldn't read or write (Surah 62:2). They were sent with proof, scripture, the 'scales of justice' and the 'might of iron' to see who would stand up for Allah and his messengers without ever having actually seen Allah for themselves (Surah 57:25).

**4.Imamate (authority of the imams)** The Imamate were the Twelve **Imams** who Shi'a Muslims believe were chosen by God to lead Islam after Muhammad. Shi'a Muslims believe that leaders such as imams protect the religion and help to guide Muslims along the right path. They also believe that the Qur'an is referring to imams when it says: We [God] made them leaders guiding by our command, and inspired them to do good deeds, establish prayer, and pay alms-tax. And they were devoted to Our worship."

5.Al-Ma'ad (Day of Resurrection) Al-Ma'ad is the belief that Muslims will be resurrected and judged by God: As We began the first creation, We will repeat it. [That is] a promise binding upon Us. Indeed, We will do it (Surah 21:104). The Qur'an tells Muslims that people who have lived good lives will receive a record of their life in their right hand as a token of their faith. They will go to Heaven. Those who have not offered prayers or helped the poor, and people who have told lies, will be condemned to Hell.

#### The Musculoskeletal System

- The musculoskeletal system is made up of bones, muscles and other connective tissue.
- The skeleton is made up of bones. It has 4 important functions:
  - to support the body and give it shape
  - to protect the internal organs
  - to allow body movements
  - to produce blood cells



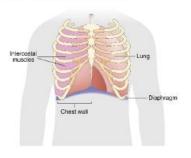
- Red and white blood cells are produced in the bone marrow of flat bones such as the pelvis.
- The skeleton and muscles interact to allow movement.
- The function of muscles is to allow movement by contracting
- 6. Antagonistic muscles work in pairs.
- An example of antagonistic muscles is the biceps and triceps.
- Joints occur where two or more bones join together.



- Cartilage in joints prevents bones rubbing together.
- An organ is made up of different tissues that work together to perform a certain function.

- We can use the force applied as a measurement of muscle strength.
- 12. A Newtonmeter can be used to measure the force exerted by a muscle.

#### Gas Exchange and Breathing



- The respiratory system is made of the organs involved in gas exchange.
- Breathing occurs through the action of muscles in the ribcage and diaphragm.
- 15. The lungs are surrounded by the ribcage.
- 16. The ribs have intercostal muscles between them. These can contract and relax to move the ribcage, changing the size of the chest cavity.
- Below the lungs sits a layer of muscle called the diaphragm.
- 18. The diaphragm can contract and relax to change the size of the chest cavity where the lungs are.
- Our respiratory system allows air to move into and out of the lungs through the nose and mouth.
- 20. Air enters the body through the nose and mouth. It then travels down the windpipe (trachea), through a bronchus then a bronchiole into an alveolus. Oxygen diffuses into the blood at the alveoli.
- 21. The trachea is the rigid tube that connects the mouth and nose to the lungs.
- 22. The bronchi (singular: bronchus) are rigid tubes that allow air to pass into each of the two lungs. These divide into smaller branches called bronchioles.
- 23. The alveoli are microscopic air pockets in the lungs lined with cells that form a very thin membrane. These surround the ends of bronchioles.

- 24. The alveoli provide an efficient exchange surface because:
  - The walls are thin, made of just one layer of epithelial cells
  - They have a large surface area: There are lots of them and they are spherical in shape
  - They have a good blood supply: There are lots of blood capillaries wrapped around them.
  - They are moist, which helps gases to diffuse across more easily.
- 25. Gas exchange is the transfer of gases between an organism and its environment
- In gas exchange, oxygen and carbon dioxide move between alveoli and the blood.
- The amount of oxygen required by body cells determines the rate of breathing.
- 28. Exercise, smoking and asthma can all affect the gas exchange system
- Parts of the gas exchange system are adapted to their function.
- The bell jar can be used to model the lungs. There are limitations to the bell jar model.
- Changes in volume and pressure inside the chest move gases in and out of the lunas.
- Asthma is a common condition where the airways (bronchi and bronchioles) become narrower.
- Asthma can be treated by inhaling a drug (Ventolin) that widens the airways to allow more air to move in and out of the lungs.

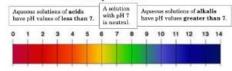
#### Drugs

- A drug is any substance that has an effect on the body
- A drug taken to treat an illness is called a medicine.
- Recreational drugs are taken by people for enjoyment. They can often be addictive
- Drugs are classified as illegal if they cause serious harm to the body.
- 38. Stimulants increase alertness and activity.
- Depressants relax the nervous system and slow down reflexes.
- Opium-related painkillers cause feelings of pleasure and trance state.
- Hallucinogens cause 'out of body' experiences and mood swings

#### The pH Scale

- Substances can be classified into acidic, alkaline and neutral solutions
- The pH scale, from 0 to 14, is a measure of the acidity or alkalinity of a solution
- The pH scale can be measured using litmus, universal indicator or a pH probe.
- 4. A solution with pH 7 is neutral.
- Aqueous solutions of acids have pH values of less than 7
- Aqueous solutions of alkalis have pH values greater than 7
- An aqueous solution is any solution in which the solvent is water





- 8. Strong acids have a pH from 0 to 3.
- 9. Weak acids have a pH of 4 to 6.
- 10. Strong alkalis have a pH from 11 to 14.
- 11. Weak alkalis have a pH from 8 to 10.
- Strong acids and strong alkalis are both corrosive.
- 13. Weak acids and alkalis are less corrosive.
- Many substances we use every day are acidic or alkaline.
- 15. Lemon juice is acidic.
- Bleach (and many other cleaning agents) are alkaline.

- Acids will turn universal indicator red or orange.
- Neutral solutions will turn universal indicator green.
- Alkaline solutions will turn universal indicator blue or purple.



#### Neutralisation

- In neutralisation reactions an acid reacts with an alkali to form a salt and water.
- 31. Neutralisation forms a neutral (pH7) solution.
- 32. A salt is a metal compound made from acid.
- A salt is formed when the hydrogen in an acid is replaced by a metal.

Acids + alkali/base  $\rightarrow$  salt + water Acronym:  $\frac{A}{A} + \frac{A}{B} \rightarrow S + W$ 

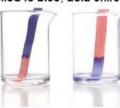
#### Indicators

- Indicators will show the pH of the substance by a colour change.
- Litmus indicator can show if a solution is acidic or alkaline.



- Litmus indicator is red in an acidic solution.
- Litmus indicator is blue in an alkaline solution.
- Litmus indicator remains the same colour in a neutral solution.
- If using litmus paper, blue litmus paper turns red in an acidic solution.
- Red litmus paper turns blue in an alkaline solution.
- To remember this, it might be helpful to memorise the rhyme

Blue to red, acid is said Red to blue, acid untrue



Acid Alkali

- 25. Universal indicator is sometimes called UI
- Universal indicator can be used as a liquid solution or as paper strips to dip into a solution.

#### Metal Carbonates

 Metal carbonates react with acids in neutralisation reactions to form a salt, water and carbon dioxide

Acids + metal carbonates  $\rightarrow$  salt + water + carbon dioxide Acronym:  $A + C \rightarrow S + W + C$ 

- 35. In an open system these products can escape, and the system is neutral
- In a closed system carbon dioxide reacts with water to form carbonic acid, which makes the system acidic

#### What will I be learning?

We will be studying Unit 3 in iClaro! This will cover:

- Likes and dislikes
- Verbs in the present tense
- Sports
- Giving opinions
- The weather

### Useful vocabulary and phrases for the units:

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

# My hobbies- Mis pasatiempos

Me gusta I like I don't like No me gusta Odio I hate Detesto I hate Me encanta I love

hobbies

programme

type

bailar salsa to dance salsa chatear en el móvil to chat on the phone descansar en casa to relax at home escuchar música to listen to music to play on the games el calor jugar a la videoconsola console to read books leer libros to surf the Internet navegar por Internet practicar deportes to do/play sports salir con mis amigos to go out with friends ver la tele to watch TV la discoteca nightclub estupendo/a wonderful favourite favorito/a interesante interesting

los pasatiempos

el programa

el tipo

hace frio hace sol hace viento hay niebla hay tormenta llueve (mucho) nieva el pronóstico el frío el invierno la Iluvia la niebla la nieve el sol la tormenta el viento cuando si

el tiempo weather ¿Qué tiempo hace? What's the weather like? hace (mucho) calor it's (very) hot it's cold it's sunny it's windy it's foggy it's stormy it's raining (a lot) it's snowing forecast heat cold winter rain fog snow sun storm wind when

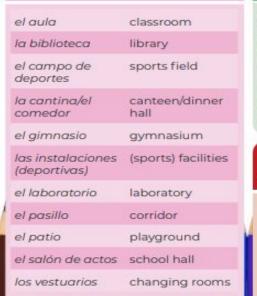


# cbac eduques Current study: School college/life

Describe tu rutina diaria.	Me levanto a y me ducho/me visto desayuno a y salgo de la casa a llego al colegio a
¿Cómo es tu colegio?	Mi colegio es muy/bastante grande/pequeño el edificio es moderno/antiguo hay profesores y alumnos. Hay muchas instalaciones, por ejemplo
¿Qué piensas de tu colegio?	Diría que mi colegio es ya que en mi opinión hay/no hay
¿Cuál es el horario del instituto?	El colegio empieza a y termina a Tenemos clases cada día y cada clase duraEn mi opinión es un día muy largo.
¿Qué haces durante el recreo?	Normalmente durante el recreo como un bocadillo/charlo con mis amigos/juego al fútbol
¿Llevas uniforme?	Desgraciadamente tenemos que llevar uniforme escolar. Tenemos que llevar En mi opinión el uniforme es
¿Qué actividades hiciste en tu colegio ayer?	Ayer fui al club de hice mis deberes jugué/practiqué/hice
¿Qué reglas hay en tu colegio?	En mi colegio hay muchas reglas, por ejemplo
¿Si pudieras, cómo cambiarías el uniforme?	Me gustaría poder llevar mi propia ropa preferiría llevar
¿Qué cambiarías de tu instituto?	Me gustaría tener un edificio más moderno cambiaría el uniforme/las reglas
¿Cómo sería tu colegio ideal?	Mi colegio ideal sería tendría habría

## School building





#### Useful verbs

asistir a	to attend	intimidar	to intimidate/ bully
empezar	to start	hacer novillos	to skip a class
durar	to last	comportarse (bien/mal)	to behave well/ badly
castigar	to punish	pasar lista	to call the register
faltar	to be absent	terminar	to finish/end

# Advantages and disadvantages of a school uniform



Aspectos positivos	Aspectos negativos
Evita problemas de discriminación.	El uniforme cuesta mucho.
Todos somos iguales.	Es incómodo y feo.
Es fácil vestirse por la mañana	Tenemos demasiado calor en el verano.
Es práctico.	No puedes escoger la ropa.

se debe + infinitive	you must
hay que + infinitive	you have to
es esencial/necesario + infinitive	it is essential/ necessary to
hace falta + infinitive	it is necessary to
(no) se puede + infinitive	you can(not)
(no) se permite + infinitive	it is (not) permitted
se podría + infinitive	you would be able to
se debería + infinitive	you should



bullying
pressure
punishment
strict teachers
homework
exams
lack of freedom/ respect/ facilities
stress
bad grades
bad behaviour

#### School rules

Tem	emos que/ Debemos
	r con puntualidad
	r el uniforme correctamente
no fo	altar a clase
traei	los materiales necesarios
no co	omer chicle/comer en clase
no u	sar el móvil
no h	ablar cuando el profe habla
resp	etar a los demás
hace	er los deberes
no lle	evar maquillaje
no co	orrer por los pasillos
ser e	ducado

#### Useful vocabulary

tratar bien a los compañeros



el/la alumno/a	pupil
la asamblea	assembly
las actividades extraescolares	extra-curricular activities
el recreo	break
la hora de comer	lunch hour
el horario	timetable
el/la compañero/a de clase	classmate
el/la profesora	teacher
el/la directora/a	headteacher
el uniforme (escolar)	school uniform
el estudiante	student
la vida escolar	school life
las reglas/las normas	rules
la rutina	routine

