

Home Learning Booklet



Knowledge Goals Year 9 Half Term 5

How to self-test

Mind mapping

- Mind mapping is simply a diagram to visually represent or outline information.
- Use information gathered from your knowledge goals booklet to create mind maps, make sure to use colour and images, keep writing to the bare minimum.

How to mind map:



Information for parents on knowledge retrieval



Flash cards

Use your knowledge goals booklet to make flash cards. Write the questions on one side and on the other record the answer. Test yourself or work with a friend to make sure you know all the key information for each topic.

How to mind map:



How should students use the Knowledge Goals booklets?

Your Knowledge Goals booklet provide the essential knowledge that you need to learn in each subject this half term. You are **expected to spend 30 minutes per subject per week 'learning' the content**. You will be assessed during lessons using 'low stake' quizzing. **Your teacher may choose to set you additional homework.**

How can parents support?

- Read through the organiser with your child – if you don't understand the content then ask them to explain it to you – 'teaching' you helps them to reinforce their learning.
- Test them regularly on the spellings of key words until they are perfect. Get them to make a glossary (list) of key words with definitions or a list of formulae.
- Read sections out to them, missing out key words or phrases that they must fill in. Miss out more and more until they are word perfect.

Subjects

Suggested Homework Schedule (1 hour of independent study per night if you have not been set homework by your class teacher). To help you get organized, we have planned out your weekly home learning to cover all subjects. You may choose to create your own version:

Week A

Day	Subject 1 (20mins)	Subject 2 (20mins)	Subject 3 (20mins)
Monday	Art	English Language	Physics
Tuesday	Biology	Technology	Maths
Wednesday	Chemistry	Spanish	Music
Thursday	Computer Science	Geography	RS
Friday	Design Technology	History	PE

Week B

Day	Subject 1 (20mins)	Subject 2 (20mins)	Subject 3 (20mins)
Monday	Drama	Personal Development	Teir 2 Vocab
Tuesday	Maths	English	Physics
Wednesday	Chemistry	English	Music
Thursday	Teir 2 Vocab	Maths	Biology
Friday			

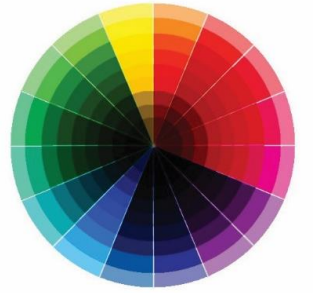
Literacy Tier 2 Vocabulary

These words are all 'tier 2' words; in other words, they are seen as 'academic vocabulary' and if you know them, can understand them and use them, you will do better in your exams and be able to communicate more precisely and effectively in life.

#	Key word	Definition
1	appropriate	
2	amend	
3	assume	
4	commission	
5	discriminate	
6	deduce	
7	emphasis	
8	facilitate	
9	occupy	
10	policy	

Colour

Theory



The Primary Colors



Primary colors, according to traditional color theory, cannot be formed by mixing any other color.

The Secondary Colors

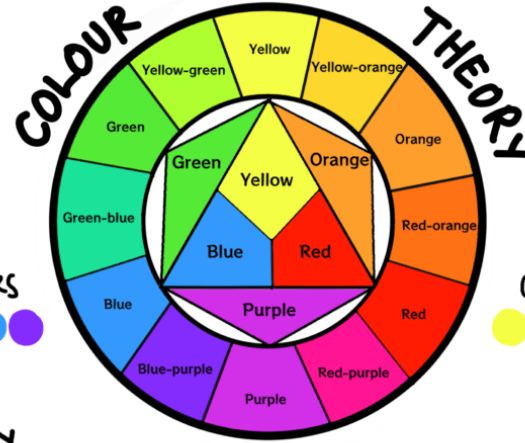


Secondary colors are the combination of 2 primary colors.

The Tertiary Colors



Tertiary colors combinations of 1 primary and 1 secondary color.



PRIMARY

Mixing different amounts of the primary colours can make all the colours of the colour wheel.



SECONDARY

Mixing two primary colours make a secondary colour



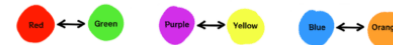
TERTIARY

Primary colours and secondary colours mixed together.



COMPLEMENTARY

Colours opposite from each other on the colour wheel.



ANALOGOUS

Colours that are neighbours on the wheel.



MONOCHROMATIC

A colour with its tints and shades. Tints are colours mixed with white. Shades are colours mixed with black.



Key words	Definition
Composition	The arrangement of elements within an art work
Value	Determines the lightness or darkness of a colour
Tone	(similar to value) describes how light or dark something is
Arrangement	A set up of components
Observational	An active acquisition of information from a primary source) eg drawing or painting from life)
Experiment	To investigate, try something out. (ideas, process or materials)
Refine	Make changes to improve
Shading	Application of tonal value to a drawing(usually using pencil)
Texture	The feel, appearance or consistency of a surface or substance
Blending	The action of mixing or combining things together eg blending one tone into another

- Primary** (Red, Yellow, Blue) three main colors
- Secondary** (Orange, Green, Purple) mix of primary colors
- Tertiary** (Yellow-green, Yellow-orange, Red-orange, Red-purple, Blue-purple, Blue-green) between secondary & primary
- Complimentary** (Red, Green) opposites on the color wheel
- Analogous** (Blue, Green, Yellow) colors next to each other
- Split Complimentary** (Purple, Red, Green) one color, with two analogous complimentary colors
- Triadic** (Yellow, Purple, Orange) forms triangle on color wheel
- Tetradic** (Red, Orange, Green, Blue) forms a rectangle on the color wheel
- Monochromatic** (Shades of Red) shades and tints of one color
- Shades** (Blue, Dark Blue, Black) base color + black
- Tones** (Blue, Light Blue, Gray) base color + gray
- Tints** (Blue, Light Blue, White) base color + white
- Warm** (Red, Orange, Yellow) reminds us of the sun
- Cool** (Blue, Green, Purple) reminds us of the sky and earth
- Neutral** (Black, White, Gray, Brown) usually not on color wheel

Formal elements of Art

The Visual Elements of line, shape, tone, colour, pattern, texture and form are the building blocks of composition in art. When we analyse any drawing, painting, sculpture or design, we examine these different parts to see how they combine to create the overall effect of the artwork

Line

Line is the beginning of all drawing. Line in an artwork can be used in many different ways. It can be used to create shape, pattern, form, structure, growth, depth, distance, rhythm, movement and a range of emotions.

Shape

Shape can be shown in a number of ways. Sometimes we can recognise the shapes, at other times, they can look like something we haven't seen before. This could be called 'abstract'.

Tone

Tone is the lightness or darkness of a colour. Tone can be changed by using white or black to make a colour lighter or darker.

Colour

Colour is the visual element that has the strongest effect on our emotions. We use colour to create the mood or atmosphere. For example, artwork that uses mainly reds and oranges, might make you feel angry.

Pattern

Pattern is made by repeating parts of the work. There are two basic types of pattern in art: Natural Pattern and Man-Made Pattern. The patterns could be made by repeating something in a certain way or completely random.

Texture

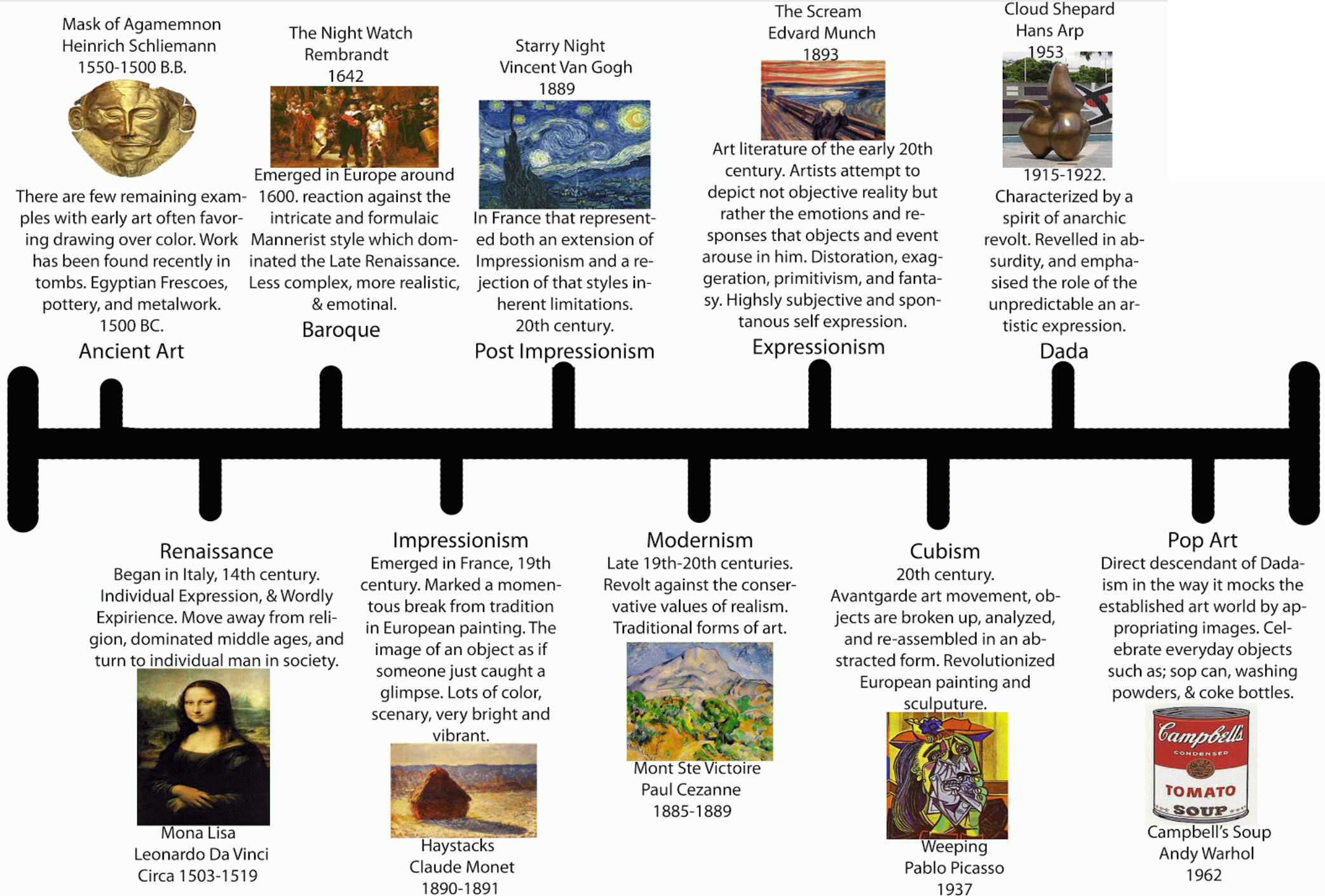
Texture is the surface effect used in art - the roughness or smoothness of the materials used to make the art.

Space

Space is an element of art by which positive and negative areas are defined or a sense of

Shape / Form	Tone	Pattern / Texture	Colour	Line
Closed	Bright	Repeated	Bright	Fluent
Open	Dull	Uniform	Bold	Free
Distorted	Light	Geometric	Primary	Controlled
Flat	Dark	Organic	Secondary	Expressionistic
Organic	Faded	Random	Cold	Strong
Deep	Smooth	Symmetrical	Warm	Angular
Positive	Harsh	Irregular	Radiant	Delicate
Negative	Contrasting	Bold	Dull	Flowing
Foreground	Intense	Bumpy	Vivid	Simple
Background	Sombre	Rough	Contrasting	Thick
Composition	Strong	Smooth	Complementary	Thin
Elongated	Powerful	Broken	Monochrome	Horizontal
Compressed	Dramatic	Fine	e	Vertical
Large		Bold	Harmonious	Broken
Small		Flat	Natural	Overlapping
2D / 3D		Grid	Saturated	Faint
Blurred			Luminous	
Movement			Opaque	
Perspective			Translucent	
			Transparent	

The Art timeline



Knowledge Goals: Biology – Circulation



Artery – takes blood away from the heart, has a thick wall withstand high pressure.

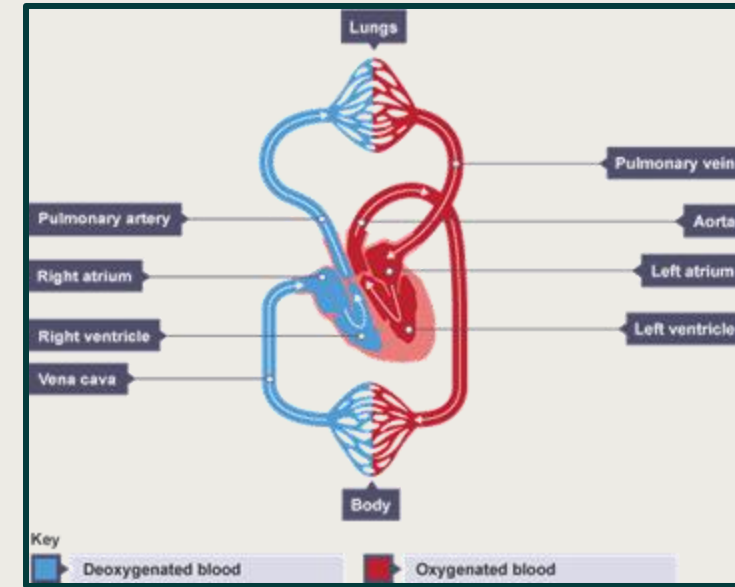
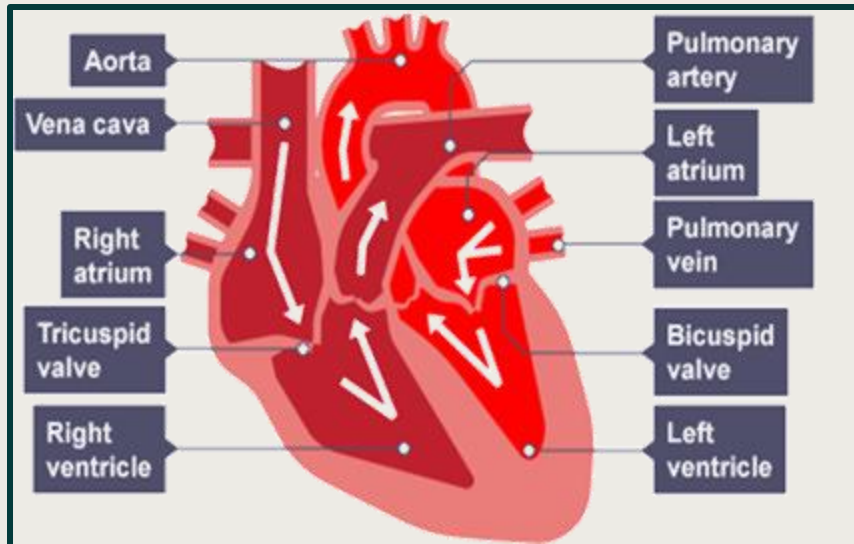
Vein – takes blood back to the heart, has a thin wall and valve to prevent backflow of blood.

Capillary – exchanges substances between the blood and cells, is one cell thick to allow quick diffusion.

The heart pumps blood to and from the lungs and body. There are 4 chambers, the top are called atria and the bottom ventricles. Blood enters the heart via the vena cava (right atrium) or pulmonary vein (left atrium) and leaves via the pulmonary artery (right ventricle) or aorta (left ventricle).

The blood, blood vessels and heart make up the **circulatory system** which transports substances to and from the body cells. The blood is composed of red blood cells, white blood cells, platelets and plasma

If there is a problem with blood flow to the heart through the coronary arteries due to fatty deposits, then doctors can either treat with statins to reduce cholesterol levels or fit a stent to open the blood vessel.



In mammals and humans, the blood vessels are arranged as a double circulatory system.

The right ventricle pumps blood to the lungs where gas exchange takes place. The left ventricle pumps blood around the rest of the body.

Knowledge Goals: Chemistry – Acids and pH

Potassium
Sodium
Calcium
Magnesium
Aluminium
Carbon
Zinc
Iron
Tin
Lead
Hydrogen
Copper
Silver
Gold
Platinum

Most reactive



Least reactive

Reactions of metals

The reactivity series of metals is a chart showing metals in order of decreasing reactivity.

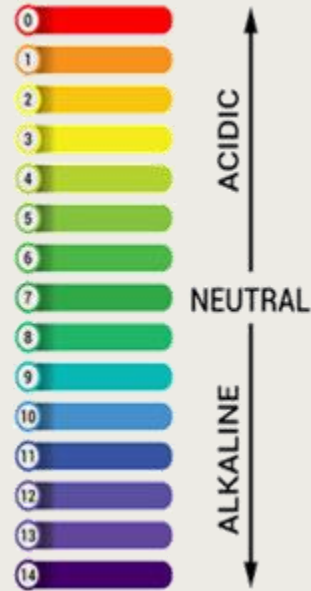
Reactions of metals with water

When reacted with water, metals produce a **metal hydroxide** and **hydrogen**.

The pH scale

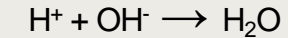
The pH of a solution gives information about how acidic or alkaline a solution is.

It ranges from 0 to 14, with a neutral substance having a pH of 7.

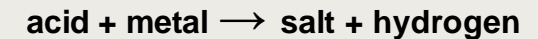
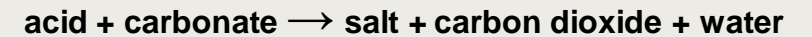
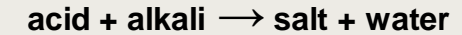
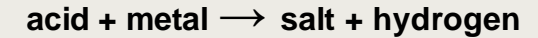


Neutralisation

When an acid reacts with an alkali a salt and water are produced. The ionic equation for the reaction of an acid and an alkali is:



The salt produced depends on the acid and alkali used in the reaction. These are the general equations of different types of neutralisation reactions:



Which salt is formed?

A salt has two parts to its name; one comes from the acid used and the other from the metal, alkali, or carbonate used.



Acids

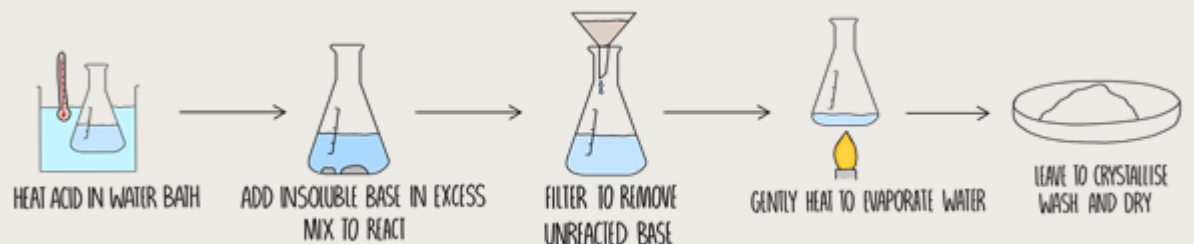
- Acids produce hydrogen ions (H^+) in water.
- Acidic solutions have a pH of less than 7.
- The stronger the acid, the lower the pH.
- As the pH decreases by one unit, the hydrogen ion concentration of the solution increases by a factor of 10.
- A strong acid is completely ionised in aqueous solution e.g. hydrochloric, nitric, and sulfuric acids.
- A weak acid is only partially ionised in aqueous solution e.g. ethanoic, citric, and carbonic acids.

Bases and alkalis

- Base is a substance which neutralises an acid.
- Alkalis are bases which dissolve in water.
- Alkalis contain hydroxide ions (OH^-).
- Alkaline solutions have a pH of more than 7.

Soluble salts from insoluble bases

Soluble salts can be made from acids by reacting them with solid insoluble substances, such as metals, metal oxides, hydroxides or carbonates. The solid is added to the acid until no more reacts and the excess solid is filtered off to produce a solution of the salt. Salt solutions can be crystallised to produce solid salts.

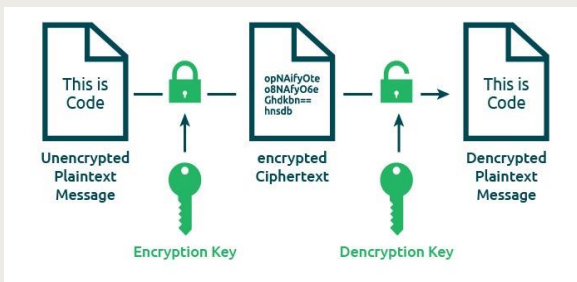


Knowledge Goals: Computer Science

Malware is malicious software that is designed to hack or damage a system. Malware can take many different forms:

Malware threat	Description
Viruses	Programs embedded (hidden) within other files. They replicate themselves and become part of other programs. Viruses often cause damage by deleting or modifying data.
Worms	Programs similar to viruses except that they are not hidden within other files. Worms often spread through emails.
Trojans	Programs which pretend to be legitimate but in reality are malware. They are often disguised as email attachments. Trojans cannot spread by themselves - instead they deceive a user into installing the program.
Spyware	Programs that monitor user activities (such as websites visited, usernames and passwords used) and send the information back to a hacker.
Ransomware	Programs that attempt to blackmail a user into making a payment to a hacker. Some types of ransomware do little but try to scare users into paying, while others go further - they encrypt documents and will not decrypt them until a ransom is paid.

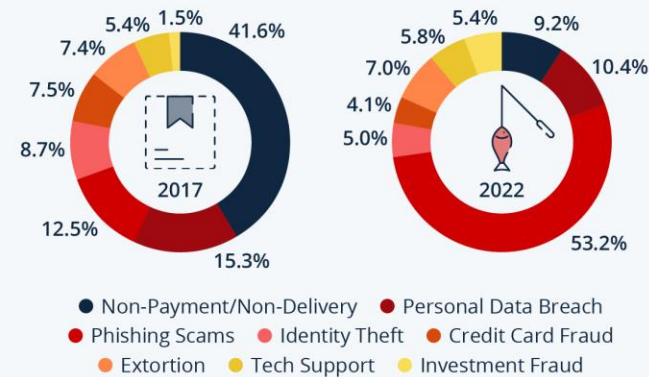
Encryption is the process of disguising a message so that it cannot be understood by anyone but its intended recipient. Encryption requires the use of a key. The key is secret as to how the message has been disguised. Unencrypted messages are referred to as plaintext messages. Encrypted messages are known as ciphertext.



Two-Factor Authentication (2FA)
[tū 'fak-tar ə-, then-ti-'kā-shən]
A security system that requires two distinct forms of identification in order to access something.

The Most Prevalent Forms of Cyber Crime

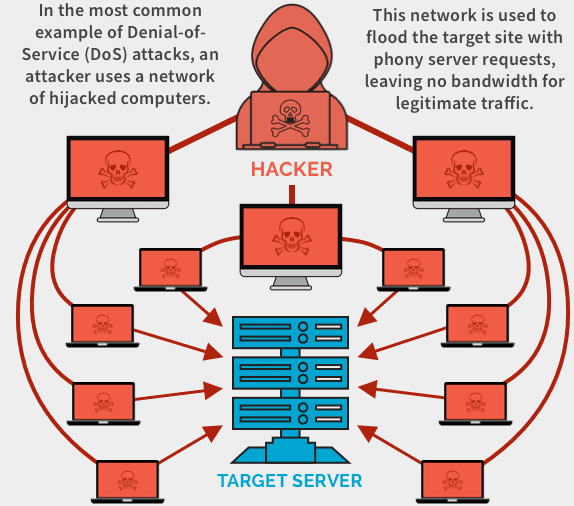
Share of worldwide cyber attacks by type



Denial-of-Service (DoS) Attack

In the most common example of Denial-of-Service (DoS) attacks, an attacker uses a network of hijacked computers.

This network is used to flood the target site with phony server requests, leaving no bandwidth for legitimate traffic.



Phishing Attacks Explained

Phishing is a cybercrime in which scammers try to lure you into giving up your personal information by impersonating a trusted source. Phishers can trick you through:



Spotting a phishing email/text/phone call:

1. Asks you to verify secret information
2. Strange attachments
3. The creation of a sense of urgency
4. Links to unrecognised website addresses - Poor spelling and grammar

Knowledge Goals: Drama

Characters:

Romeo Montague – Son of the Montague family.

Juliet Capulet – Daughter of the Capulet family.

Mercutio – Friend to Romeo – neither Capulet nor Montague.

Tybalt – Juliet's Cousin, a prominent Capulet.

Benvolio – Romeo's cousin.

Friar Lawrence – A Franciscan monk and friend to both families.

Nurse – Juliet's confidante, very close to her, motherly.

Prince Escalus – Leader of Verona, trying to keep peace between the families.



Very Brief Plot Summary:

Act 1: Set in Verona, we find two warring families – the Montagues and the Capulets. There is a ball and two young people meet and fall in love – Romeo Montague and Juliet Capulet. Their families will never allow this.

Act 2: Romeo and Juliet continue to see each other secretly. Romeo wishes he was not a Montague and they decide that they will secretly marry.

Act 3: Tybalt (Juliet's cousin) tries to argue with Romeo, who refuses. Mercutio (Romeo's friend) goads Tybalt into a fight and is killed by Tybalt when Romeo attempts to stop them. Romeo then murders Tybalt in his anger.

Act 4: Juliet asks for help from Friar Lawrence. He gives her a sleeping potion that will make her appear dead so that on her supposed wedding day to Paris she will be carried to the family vault, where Romeo will find her and whisk her away.

Act 5: Romeo doesn't receive the letter about the plan. He hears Juliet has died and obtains a poison for himself. Romeo sees Juliet (assuming she is dead) and poisons himself. Juliet awakes and realising what has happened kills herself. The two families reconcile in the wake of the tragedy.

Honour: Maintaining family honour was seen as of great importance. If you were challenged to a duel and refused, your family would be seen as cowardly and this would dishonour their status and power. This strong regard for honour could often lead to violence and unrest.

Gender: Men controlled society. Women were seen as the weaker sex and were expected to be obedient to their families and husbands.

Arranged Marriage: Arranged marriages between wealthy families were never about love. They were arranged to improve status, power and wealth.

Catholicism: Religion was very important at this time and set in Italy, the Catholic church had great influence. Marriage was sacred and could not be undone. There was a strong belief in 'damnation' for mortal sin. Suicide was considered a mortal sin.

Family and children: Children were considered property of their parents. It was also common for children to have a 'nurse' and as a result, did not often have strong bonds with their parents.

Courtly love: Courtly love was all about behaviour and was supposed to be polite, restrained and courteous. Often gifts were exchanged but there was little contact. The notion of 'courtly love' strongly opposes the passion and emotion we associated with 'real love'.

Key Quotations:

"A pair of star-crossed lovers take their life" Prologue

"My child is yet a stranger in the world" Act 1 Scene 2

"It is too rough,

Too rude, too boisterous, and it pricks like a thorn." Act 1, Scene 4

"O, she doth teach the torches to burn bright!" Act 1, Scene 5

"Did my heart love till now?" Act 1 Scene 5

"I will withdraw, but this intrusion shall, Now seeming sweet, convert to bitterest gall!" Act 1, Scene 5

"If he be married, my grave is like to be my wedding bed." Act 1, Scene 5

"My only love sprung from my only hate!

Too early seen unknown, and known too late!" Act 1, Scene 5

"But, soft, what light through yonder window breaks?

It is the east, and Juliet is the sun." Act 2, Scene 1

"Oh Romeo, Romeo! Wherefore art thou Romeo?" Act 2, Scene 1

"Deny thy father and refuse thy name." Act 2, Scene 2

"For this alliance may so happy prove

To turn your households' rancour to pure love." Act 2, Scene 1

"Parting is such sweet sorrow." Act 2, Scene 1

"These violent delights have violent ends." Act 2, Scene 5

"A plague o'both your houses!" Act 3, Scene 1

"Mercy but murders, pardoning those that kill." Act 3, Scene 1

"O deadly sin! O rude unthankfulness!" Act 3 Scene 3

"Romeo, Romeo, Romeo! Here's drink: I drink to thee." Act 4, Scene 3

My lady's dead! Oh curse the day that I was born! Act 4, Scene 5

"O happy dagger,

This is thy sheath: there rust, and let me die." "Act 5, Scene 3

"All are punished." Act 5, Scene 3

"For never was a story of more woe, Than this of Juliet and her Romeo." Act 5, Scene 3

Knowledge Goals: English



PLOT	CHARACTERS	THEMES AND CONTEXT
<p>The play of 'Noughts and Crosses' is adapted from a novel of the same name by Malorie Blackman, which alternates the narrator between Sephy and Callum. In the play, Act 1 mainly focuses on Callum's 'world' and Act 2 switches to Sephy's 'world'.</p> <p>We follow the love story of Sephy and Callum, two young people kept apart by bigotry, terrorism and injustice. Sephy is a Prime Minister's daughter from the powerful Crosses who falls for rebel Callum, son of a dangerous nought agitator.</p>	<p>The Noughts:</p> <p>Callum McGregor - in love with Sephy Jude McGregor - Callum's brother Lynette McGregor - Callum's sister Ryan McGregor - Callum's father Meggie McGregor - Callum's mother</p> <p>The Crosses:</p> <p>Sephy Hadley - in love with Callum Kamal Hadley - Sephy's father Jasmine Hadley - Sephy's mother Minerva Hadley - Sephy's sister</p>	<p>Themes:</p> <p>Racism Discrimination Friendship Love War Prejudice</p> <p>Context:</p> <p>The story of 'Noughts and Crosses' was influenced by a time in history where white people had control over black people. In the play's scenario, as in the original novel, black people (Crosses) have control over white people (Noughts).</p>
KEY TERMINOLOGY	CORE ASSESSMENT SKILLS	STUDENTS ARE AIMING TO BE ABLE TO WRITE:
<p>Dystopian – the opposite of utopian (paradise); a nightmare world.</p> <p>Discrimination – treating someone worse than others because of who they are.</p> <p>Bigotry – the holding of prejudiced and discriminatory views.</p> <p>Oppression – keeping people down through enforced control.</p> <p>Juxtaposition – two contrasting images placed together.</p> <p>Contrast – the difference between things.</p> <p>Foreshadowing – laying clues for what will happen next.</p> <p>Dialogue – interaction between characters.</p> <p>Theme – a key idea that recurs throughout a text.</p> <p>Context – the background information that helps a text make sense.</p>	<p>Reading:</p> <p>Evaluation of effectiveness of writer's choices and approach (EV)</p> <p>Analysis of writer's techniques – language and structure (WTL/WTS)</p> <p>Analysis of effect on reader/audience (ERA)</p> <p>Use of evidence (E)</p> <p>Writing:</p> <p>Ambitious vocabulary (AV)</p> <p>Ambitious punctuation (AP)</p> <p>Sentence variety (SV)</p>	<p>R: The writer effectively uses dialogue and emotive verbs to convey the desperation of the characters. When Callum says 'I need to see you,' the verb 'need' suggests there have been troubles and Callum requires Sephy's support. The connotations of the word are of desperation and may make the audience feel anxious for the characters due to the unresolved tension between them and the pleading tone that the line implies.</p> <p>W: There was uproar in the execution chamber last night as Ryan MacGregor, the Liberation Militia member accused of the Meadowview bombing, was granted a last-minute reprieve from his death sentence. An eyewitness who spoke on condition of anonymity remarked, 'He is the luckiest man alive'. Reactions were mixed.</p>

Knowledge Goals: Food Technology

A **Head Chef** is a highly skilled professional cook who oversees the operations of a restaurant or dining facility

FOOD MILES

WHAT ARE THEY AND HOW DO THEY AFFECT OUR WORLD?

AMERICAN FOOD TRAVELS AN **average** OF 1,500 TO 2,500 MILES FROM FARM TO TABLE



GROWING FOOD CLOSER TO **home** ALLOWS US TO HAVE FRESHER FOODS, AND MORE VARIETIES OF FOODS



Time + distance FROM THE POINT & TIME WHERE FOOD IS **grown** TO WHERE IT IS **consumed**. THE SMALLER THE BETTER!

60-70% OF THE COST OF YOUR FOOD GOES TO **production inputs**



(FERTILIZER, OIL/GAS, WATER, ETC.), TRANSPORTATION, AND STORAGE THAT USE **limited** RESOURCES, PETROCHEMICALS, & GENERATE GREENHOUSE GASSES.

FOOD MILES ARE AMONG THE FASTEST-GROWING SOURCES OF GREENHOUSE GAS EMISSIONS **worldwide**



FRUITS AND VEGETABLES ALLOWED TO **grow to full ripeness** HAVE MORE NUTRITIONAL VALUE THAN CONVENTIONAL PRODUCE HARVESTED EARLY AND RIPPENED WITH CHEMICAL GASSES IN TRANSPORT AND STORAGE



AVOIDING CROSS-CONTAMINATION

Chemical-to-Food

- Label chemicals clearly
- Have a designated closet for chemicals
- Keep chemicals far away from your food



Food-to-Food

- Keep ready-to-eat foods away from raw foods or food allergens
- Use designated utensils, cutting boards, etc. for raw foods and allergens
- After handling allergens or raw foods, immediately change glove and wash your hands



Pest-to-Food

- Store food at least 6 inches above the floor
- Keep foods covered
- Keep a clean, sanitized, and tidy kitchen



The role of the EHO (Environmental Health Officer)



Checking ventilation

The role of the EHO

- They can visit randomly so long as it is deemed "a reasonable time"
- They sometimes visit as a result of a complaint
- Can close a business immediately if the risk is high
- They can offer advice to business'
- They can seize and detain food
- They can prosecute business'
- They can inspect training records of staff
- Monitor hygiene and cleaning standards
- Take temperatures of fridges, inspect how waste is disposed of, hand washing facilities and food storage

Medical Reasons

Name of medical condition	Food/drinks to avoid	Reason to avoid
Diabetes	Starchy food/ high in sugar	High in saturated fat. Can lead to heart disease, while excess sugars can cause unwanted weight gain and blood sugar spikes
Nut allergy	Nuts, blended cooking oil, margarine with nuts oils and often seeds	the immune system overreacts to proteins in these foods
Lactose intolerance	Milk, cheese, yogurt, processed food	cannot metabolize lactose properly; they lack lactase, an enzyme required in the digestive system to break down lactose . Patients typically experience bloating, flatulence, and diarrhoea
Gluten intolerance (coeliac)	Wheat, wholemeal, bran, pasta, rye, beer	Celiac disease is caused by a reaction to a gluten protein found in wheat, barley, rye, and sometimes oats. Symptoms include chronic diarrhoea , weight loss and fatigue

Fats, oils and lipids:

Too much fat is bad for you, but so is not enough.

Source

Saturated Fats

(From Animal sources. They are also called unhealthy fats. They are generally solid at room temperature)
Sausages / Bacon / Lard / Dairy

Unsaturated Fats

(These are healthier. They are often liquid at room temperature.)
Monounsaturated fats
- olive oil / avocados
Polyunsaturated fats
- sunflower oil / seeds

Omega-3

These are Polyunsaturated and called "healthy" fats as your body needs them but can't make them. They are good for your heart.
- Oily fish / Nuts / Seeds

Function

Energy
Warmth
Protection of organs
Source of fat soluble vitamins
Hormone production

Dietary Reference Values		
DRI	Men	Women
Total fat	95g	70g
Sat fat	30g	20g

Too much
Obesity
Heart disease
Type 2 diabetes
Stroke
Cancer

Not enough
Vitamin deficiency (fat soluble)
Unprotected organs

Carbohydrates

There are 2 kinds, simple and complex - Sugar & Starches

Monosaccharides

Glucose, Fructose

Disaccharides

Sucrose, Maltose

Polysaccharides

Starch, Glycogen

Source

Simple - these are sugars (monosaccharides, disaccharides)
Cakes, jam, soft drinks

Complex - these are starches (polysaccharides)
Bread, potatoes, Flour, Pasta, Rice.

Function

Simple
Quick burst of energy
Complex
Longer lasting energy

Free sugars

These give you no nutritional benefit other than energy.

Not enough

Can make blood sugar level drop
• hunger,
• dizziness,
• Tiredness
• Lack of energy
Our body will use protein for energy (leads to loss of muscle)

Too much

• Excess is turned into fat
• Can cause obesity
• Too much sugar leads to dental problems
• Can lead to type 2 diabetes

Protein:

These are made up of **essential amino-acids** and **non-essential amino-acids**. (Our bodies can make non-essential amino acids, but we need to get essential amino acids from our food).

Source

HBV - these have all the essential amino acids
• Meat, fish, dairy, eggs (animal sources)
• Tofu
LBV - these are missing at least one essential amino acid
• Seeds, nuts, beans, pulses, cereals, Quorn (plant sources)

Function

Growth
Repair
maintenance



Not enough

Kwashiorkor
Oedema
Anaemia
Slow growth in children

Too much

Excess protein can be converted to energy. If unused turns to fat.

Dietary Reference Values

Age	Amount
1-3	15g
4-6	20g
7-10	28g
11-14	42g
15-18	55g
19-50	55g
50+	53g

Complementary actions

Combining 2 or more LBV proteins helps get a balance of essential amino acids. e.g. beans on toast.

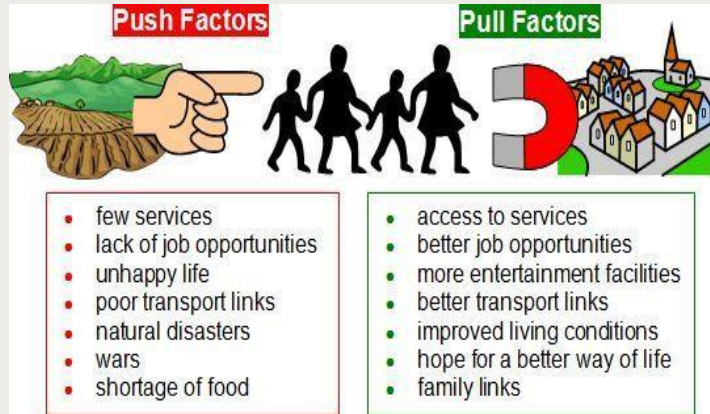
Knowledge Goals: French

La nourriture et les boissons du beurre/du fromage du lait/du pain du poisson/du poulet du yaourt de la confiture de la glace	Food and drink butter/cheese milk/bread fish/chicken yoghurt jam ice cream	de la viande de l'eau (f) des bananes/des fraises des oeufs/des pêches des poires/des pommes des pommes de terre	meat water bananas/strawberries eggs/peaches pears/apples potatoes
Les repas Qu'est-ce que tu prends pour le petit-déjeuner? Qu'est-ce que tu manges à midi? Qu'est-ce que tu manges comme casse-croûte? Qu'est-ce que tu manges le soir? Qu'est-ce que tu bois? Pour le petit-déjeuner, ... À midi, ... Comme casse-croûte, ... Le soir, ...	Meals What do you have for breakfast? What do you eat at lunchtime? What do you have as a snack? What do you eat in the evening? What do you drink? For breakfast ... At lunchtime ... As a snack ... In the evening ...	Comme dessert, ... Je prends/je mange ... des céréales du pain grillé un sandwich des chips/des biscuits des pâtes de la salade de la glace au chocolat Je bois du jus d'orange.	For dessert ... I have/I eat ... cereal toast a sandwich crisps/biscuits pasta salad chocolate ice cream I drink orange juice.
Les quantités un kilo de ... deux cent cinquante grammes de ... un litre de ... un paquet de ...	Quantities a kilo of ... 250 grams of ... a litre of ... a packet of ...	un pot de ... une boîte de ... une bouteille de ... quatre tranches de ...	a jar/pot of ... a tin/can of ... a bottle of ... four slices of ...
Les vêtements Je porte ... un blouson/un chapeau un costume un imperméable un jean (moulant) un manteau/un pantalon un polo/un pull un sac à main/un short un sweat à capuche un tee-shirt une casquette une ceinture	Clothes I wear/am wearing ... a jacket/a hat a suit a raincoat (a pair of) (skinny) jeans a coat/(a pair of) trousers a polo shirt/a jumper a handbag/(a pair of) shorts a hoodie a T-shirt a cap a belt	une chemise/une écharpe une mini-jupe/une montre une robe/une veste des baskets (de marque) des boucles d'oreille des bottes des chaussettes des chaussures des gants des lunettes de soleil en laine/en cuir rayé(e)(s)	a shirt/a scarf a mini-skirt/a watch a dress/a jacket (designer) trainers earrings boots socks shoes gloves sunglasses woollen/leather striped
Les couleurs blanc(he)(s) bleu(e)(s) gris(e)(s) jaune(s) marron mauve(s) noir(e)(s)	Colours white blue grey yellow brown purple black	orange rose(s) rouge(s) vert(e)(s) clair foncé multicolore(s)	orange pink red green light dark multi-coloured
La vie quotidienne J'ai cours tous les jours sauf ... Les jours d'école, ... je dois me lever tôt je dois quitter la maison à (7h30) Le soir, ... je dois faire mes devoirs je dois aider ma mère je peux regarder un peu la télé	Daily life I have lessons every day except ... On school days ... I have to get up early I have to leave the house at (7.30) In the evening ... I have to do my homework I have to help my mother I can watch a bit of TV	Le samedi/Le dimanche, ... je peux rester au lit je peux retrouver mes copains/copines en ville je dois ranger ma chambre je peux écouter de la musique	On Saturdays/Sundays ... I can stay in bed I can meet up with my friends in town I have to tidy my room I can listen to music
Au magasin de vêtements la taille la pointure les cabines d'essayage une taille moyenne Il y a un trou. Il y a une tache. Il/Elle est/ils/Elles sont ... trop petit(e)(s)	In the clothes shop size shoe size changing rooms medium size There's a hole (in it). There's a stain (on it). It is/They are ... too small	trop grand(e)(s) cassé(e)(s) Il/Elle ne marche pas. Je voudrais ... échanger (la jupe/le pantalon, etc.) un remboursement	too big broken It is not working/doesn't work. I would like ... to exchange (the skirt/trousers, etc.) a refund

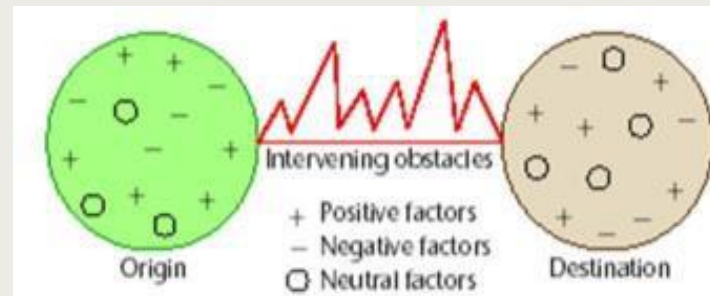
Faire les magasins ou faire du shopping en ligne? Je préfère ... faire les magasins faire mes achats en ligne parce que/qu' ... c'est mieux d'essayer les vêtements dans un magasin	Go to the shops or shop online? I prefer ... to go to the shops to make my purchases online because ... it's better to try clothes on in a shop	je peux demander l'opinion de mes ami(e)s il y a trop de monde dans les magasins on peut trouver des vêtements moins chers c'est plus facile/plus rapide	I can ask my friends' opinion there are too many people in the shops you can find cheaper clothes it's easier/faster
Les fêtes Noël la veille de Noël Pâques Diwali Hanoukka Aid-el-Fitr le 6 janvier/la fête des Rois le premier avril la Chandeleur le Nouvel An la Saint-Sylvestre la Saint-Valentin la fête des Mères le 14 juillet/la fête nationale française On est chrétiens. On est juifs. On est musulmans.	Festivals Christmas Christmas Eve Easter Diwali Hanukkah Eid al-Fitr Epiphany April Fool's Day Candlemas New Year New Year's Eve Valentine's Day Mother's Day Bastille Day, 14 July We are Christian. We are Jewish. We are Muslim.	Chez moi/nous, ... on fête (Noël/Diwali, etc.) on boit du champagne on décore le sapin de Noël on s'offre des cadeaux on ouvre les cadeaux on chante des chants traditionnels on allume des bougies on cherche des oeufs dans le jardin On prépare/mange ... de la dinde rôtie des légumes une bûche de Noël au chocolat des crêpes une galette des Rois toutes sortes de bonnes choses des choses sucrées	At my/our house ... we celebrate (Christmas/Diwali, etc.) we drink champagne we decorate the Christmas tree we give each other presents we open the presents we sing traditional songs we light candles we look for eggs in the garden We prepare/eat ... roast turkey vegetables a chocolate Yule log crêpes tart eaten for Epiphany all sorts of good things sweet things
Un repas spécial Je vais/On va apporter ... du jambon/du pâté du saucisson des baguettes des biftecks des saucisses des salades composées une salade de riz du concombre	A special meal I am/We are going to bring ... ham/pâté salami baguettes steaks sausages mixed salads a rice salad cucumber	une laitue des tomates/des oignons des poivrons des champignons des abricots des framboises du raisin des mini-gâteaux une tarte aux fruits	a lettuce tomatoes/onions peppers mushrooms apricots raspberries grapes mini-cakes a fruit tart
Les magasins le marché/le supermarché la boucherie la boulangerie	Shops market/supermarket butcher's bakery/baker's	la charcuterie la pâtisserie l'épicerie (f)	pork butcher's/delicatessen cake shop/pastry shop greengrocer's
Fêter le 14 juillet On va aller au bal. On va regarder le feu d'artifice.	Celebrating Bastille Day We're going to go to the dance. We're going to watch the fireworks.	On va s'amuser. On va inviter ...	We're going to have fun. We're going to invite ...
Félicitations! l'anniversaire (m) le mariage la fête C'était mon anniversaire. J'ai reçu beaucoup de cadeaux. Ma sœur a eu son premier bébé. Je suis allé(e) au mariage de (ma cousine).	Congratulations! birthday wedding/marriage party It was my birthday. I received lots of presents. My sister had her first baby. I went to (my cousin's) wedding.	Mon frère s'est pacé avec son compagnon. Il y avait ... beaucoup d'invités un gâteau spécial C'était ... génial	My brother entered into a civil partnership with his partner. There was/were ... lots of guests a special cake It was ... great
Les mots essentiels avec pour donc, alors car/parce que malheureusement sinon parfois quelque(s) beaucoup de	High-frequency words with for so, therefore for/because unfortunately if not, otherwise sometimes some/a few lots of	en ce moment en été avant-hier il y a (trois) jours Je suis désolé(e). bien sûr quel/quelle/quels/quelles ...? ce/cet/cette/ces	at the moment in summer the day before yesterday (three) days ago I'm sorry. of course which ...? this/these

Knowledge Goals: Geography – Is the grass really greener? Migration

Push and pull factors



Lee's model of migration



Positive factors: Pull factors

Negative factors: Push factors

Natural factors: climate, landscape

Intervening obstacles: physical distance, physical barriers, political obstacles and cultural barriers

Different types of migration

Forced migration	The movement of people from one place to another through no choice of their own
Voluntary migration	People moving by choice
International migration	The movement of people from one country to another
Rural to urban migration	People moving from the countryside to urban areas
Economic migrant	A person who moves from one place to another for economic reasons e.g. job

Life in the slums

Cramped housing - 6 to 8 people per small room. Cook, eat and live in the slums. Made from waste materials such as wood, bricks, plastic and corrugated sheeting. Family life is often difficult as there is no privacy

Sanitation – toilets are shared between as many as 50 households and often drain straight into the river. Water is often taken from this river to cook and wash with

Disease – this is often rife as garbage is often dumped in the streets. This pollutes the area and encourages rats which carry disease. Children play and people socialise in the streets

Services – Electricity and water are often not connected legally to the slums. There is often limited and expensive access to health and education. Sewerage and waste collection services often do not exist.

Challenges facing cities due to migration

Social challenges	<ul style="list-style-type: none"> • Air pollution due to traffic congestion and factories • Health issues • Overcrowding • Service provision • Poorest face biggest challenges
Economic challenges	<ul style="list-style-type: none"> • Employment • Low standard of living • Economic access to services (poverty)
Environmental challenges	<ul style="list-style-type: none"> • Deforestation • Air pollution • Water pollution • Noise pollution • Waste management

Improving the slums

Top down approaches - the government decides on the project

Examples of this include:

1. Self help schemes where the government gives loans / materials to slum dwellers to help them improve their livelihood
2. National schemes to improve water and electricity supplies
3. New homes are built and slum dwellers are moved into these before demolishing the slums

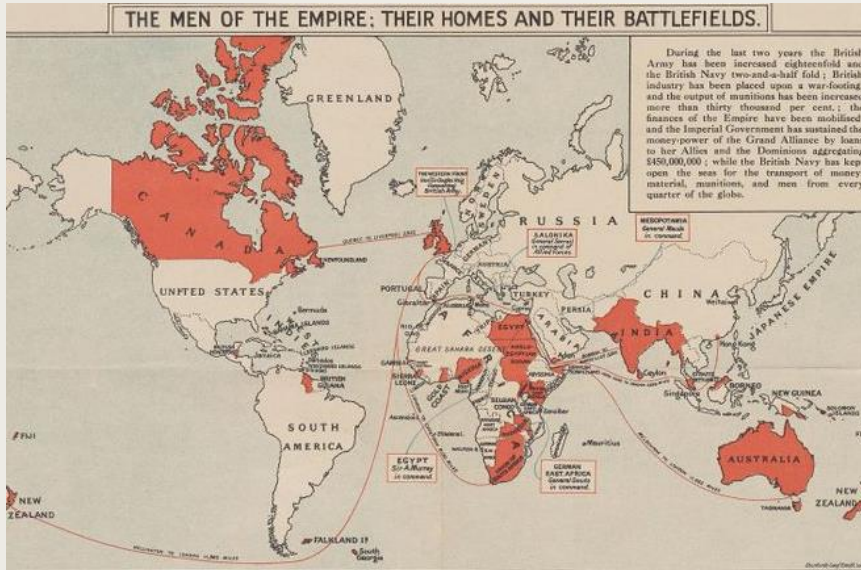
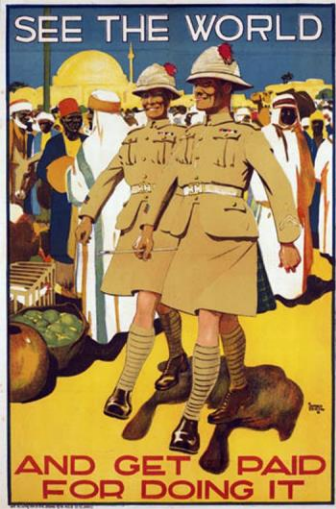
Bottom up approaches – often small scale projects that work with the local community

Examples of this include:

1. Aid agencies help provide water to the slums
2. Slum dwellers work with aid agencies to build sewers and improve their homes
3. Microloans are given out to help people improve their quality of life

Knowledge Goals: History – British Empire

An **empire** is a group of countries ruled over by a single monarch or ruling power. An empire doesn't need an 'emperor'. Between 1497 and 1763, English seamen reached places Europeans had not previously been. Britain then set up colonies and used them to trade all over the world. However the British used violence to take over these lands, many people were enslaved. The first English colonies were formed in North America in 1585 by Sir Walter Raleigh.



By 1783, Britain had established an empire which comprised of colonies in North America, including the West Indies, and the Pacific including New Zealand, trading posts in India and naval bases in the Mediterranean. However, Britain's defeat in the American War of Independence meant the loss of the American colonies.



AUSTRALIA



BRITISH RAJ



BRITISH SOUTH AFRICA



BRITISH CARIBBEAN

Australia

Throughout the 16th and 17th century voyages of discovery, the continent of Australia had remained largely undiscovered. In 1768 James Cook set off in his ship Endeavour from Plymouth in an attempt to claim land for the growing British empire. The British claimed the land of Australia, with no consideration of the aborigines. Because they did not wear clothes and never washed, the aborigines were seen as savages and inferior to the white European settlers.

India

The East India Company was founded in England in 1599 and soon began building trading warehouses in India. By the 1850s, the British ruled about 60% of India. The British banned traditional Indian ceremonies and wanted India to use the British education system. The British Raj was the rule of the British Crown on the Indian subcontinent from 1858 to 1947. The rule is sometimes called 'Crown rule in India' or 'direct rule in India'.

South Africa

In 1885, 13 Western powers were invited to a conference in Germany to settle the issue of Africa. The borders that were drawn up at this conference remain the borders within Africa that we know today. The British wanted to control South Africa because it was one of the trade routes to India. However, when gold and diamonds were discovered in the 1860s-1880s their interest in the region increased. This brought them into conflict with the Boers. Tensions between Boers and British led to the Boer War of 1899-1902. This was an extremely bloody and brutal war, which the British eventually won.

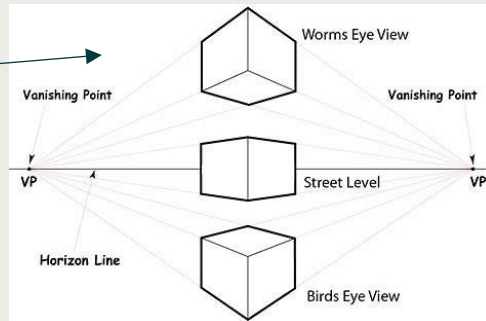
Knowledge Goals: Materials 1 - Passive Amplifier

Health and Safety

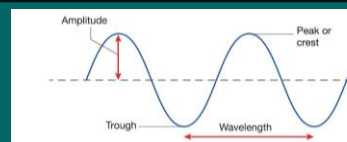
It is really important we **ASSESS** the **RISK** and **REDUCE** the **RISK** of Injury by **LISTENING** To the **TRAINING** and following the correct **PPE** usage

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- Ensure you know where the emergency stop button is
- Do not eat or drink in the workshop
- No running

Two-point perspective - This shows an object from the side with two vanishing points. It gives the most realistic view of a product as it shows the item edge on, as we would see it. It is often used to produce realistic drawings of an object.

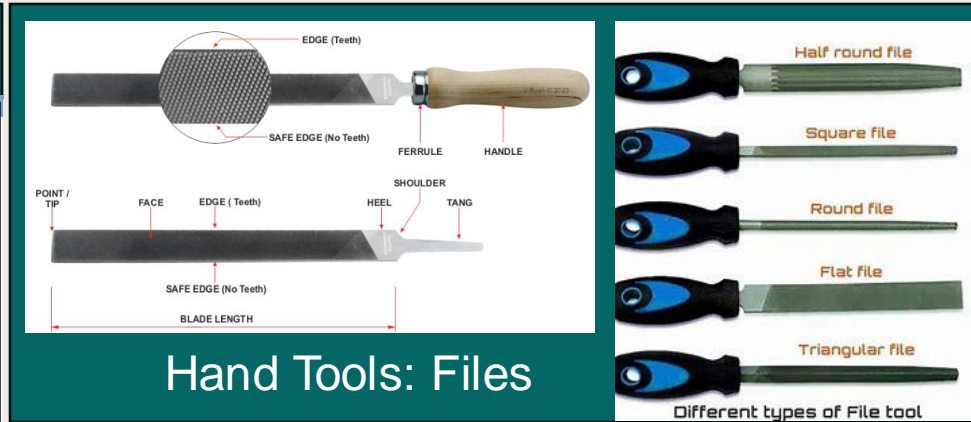


The loudness of a sound is a measure of the amplitude of the wave. The greater the amplitude, the louder the sound.



CAD – 2D Design Software

	Select Tool – Used when selecting drawing, moving drawing or lines and shapes.
	Circle Tool – Used to draw circles. Click and hold to extend the tool bar for more options.
	Line Tool – Used to draw lines. Click and hold to extend the tool bar for more options.
	Path Tool – Used to draw curves and curved lines. Click and hold to extend the tool bar for more options.
	Rectangle Tool – Used to draw rectangles and squares. Click and hold to extend the tool bar for more options.
	Double Path Tool – Used to draw curves and curved lines with a double line. Click and hold to extend the tool bar for more options.
	Text Tool – Used to add text to the design. Text style can be changes and altered to suit the design.
	Mirror Tool – Used to mirror and repeat a design. Found by holding down the Transform Tool
	Grid Lock – Used to show the grid spacing on the drawing.
	Delete Any – Deletes whole line in a drawing.
	Delete Part – Deletes part of lines to the nearest two intersections.



Hand Tools: Files

Hardwood

Hardwoods come from deciduous trees, which have large flat leaves that fall in the autumn. Hardwoods take longer to grow, are not easily sourced and are expensive to buy.

Examples: Beech (utensils), Oak (cabinet), Pine (window frame).

Manufactured boards are usually made from timber waste and adhesive. To make them more aesthetically pleasing they are often veneered. They are cheap to buy.

Examples: Oak veneer on chipboard, Plywood, Chipboard, MDF.

Softwood

Softwoods come from coniferous trees. These often have pines or needles, and they stay evergreen all year round - they do not lose leaves in the autumn. They are faster growing than hardwoods, making them cheaper to buy, and are considered a sustainable material.

Examples: Pine, Spruce, Larch.

Manufactured Board

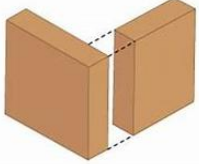
Knowledge Goals: Materials 1 - Sweet Dispenser

Wood Joints

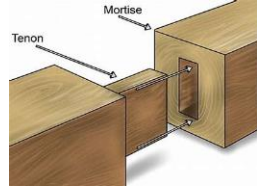
Dowel Joint



Butt Joint

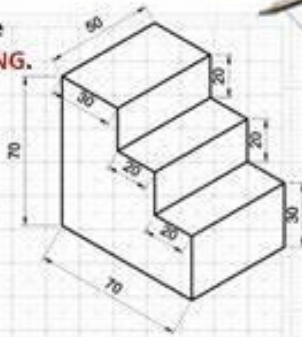


Mortice and Tenon

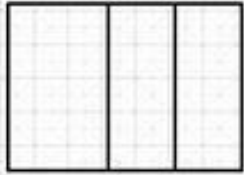


Orthographic Projection

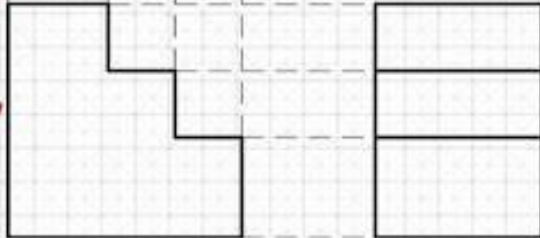
Now look at this example using a set of steps, I have included the dimensions on the **ISOMETRIC DRAWING**.



Plan View (Top)



Front View



End View (Side)



Note how the three drawings are laid out, all in line with each other and each has been drawn to scale.

Avoiding Design Fixation

SCAMPER



S SUBSTITUTE

Replace a think or concept with something else

C COMBINE

Unit? What? Who? Ideas? Materials?

A ADAPT

Adjust to a new purpose. Re-shape? Tune-up?

M MODIFY, MAGNIFY, MINIFY

Change the color, sound, motion form, size
Make it larger, stronger, thicker, higher, longer
Make it smaller, lighter, slower, less frequent, reduce

P PUT TO ANOTHER USE

Change when, where, location, time or how to use it.

E ELIMINATE

Omit, get rid of, cut out, simplify, weed out...

R REARRANGE, REVERSE

Change the order, sequence, pattern, layout, plan, scheme, regroup, redistribute...

Health and Safety

It is really important we **ASSESS** the **RISK** and **REDUCE** the **RISK** of Injury by **LISTENING** To the **TRAINING** and following the correct **PPE usage**

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- No running

6R's - Sustainability

Recycle - Take an existing product that has become waste and re-process the material for use in a new product.

Reuse - Take an existing product that's become waste and use the material or parts for another purpose, without processing it.

Reduce - Minimise the amount of material and energy used during the whole of a products life cycle.

Refuse - Don't accept a product at all if you don't need it or if its environmentally or socially unsustainable.

Rethink - Our current lifestyles and the way we design and make.

Repair - When a product breaks down or doesn't function properly, fix it.

Knowledge Goals: Maths

Unit 10 – Probability

Topic	Video	Resource
to use a probability scale with vocabulary and fractions.	Watch this	Complete Q2,5,7 (check answers by clicking at bottom of page)
to identify the probability of single events giving answers as fractions and decimals.	Watch this	Complete Q3,6,8 (check answers by clicking at bottom of page)
find the probability of mutually exclusive outcomes.	Watch this	Complete Q3,6,9 (check answers by clicking at bottom of page)
strategically list outcomes on a sample space	Watch this	Complete Q1,2,3 (check answers by clicking at bottom of page)
complete a two way table and identify probability from the information	Watch this	Complete Q1,2,5 (check answers by clicking at bottom of page)
complete a frequency tree and identify probability from the information.	Watch this	Complete Q1,2,3 (check answers by clicking at bottom of page)
Probability and Venn diagrams (Higher)	Watch this	Questions

The probability scale R

Impossible
0 or 0%

Even chance
0.5, $\frac{1}{2}$ or 50%

Certain
1 or 100%

The more likely an event the further up the probability it will be in comparison to another event (it will have a probability closer to 1)

There are 2 pink and 2 yellow balls, so they have the same probability

There are 5 possible outcomes
So 5 intervals on this scale, each interval value is $\frac{1}{5}$

Single event probability R

Probability is always a value between 0 and 1

The probability of getting a blue ball is $\frac{1}{5}$
∴ The probability of NOT getting a blue ball is $\frac{4}{5}$

The sum of the probabilities is 1

The table shows the probability of selecting a type of chocolate

	Dark	Milk	White
	0.15	0.35	

$P(\text{white chocolate}) = 1 - 0.15 - 0.35 = 0.5$

Independent events

The rolling of one dice has no impact on the rolling of the other. The individual probabilities should be calculated separately.

Probability of event 1 × Probability of event 2

$P(5) = \frac{1}{6}$ $P(R) = \frac{1}{4}$

Find the probability of getting a 5 and a red

$P(5 \text{ and } R) = \frac{1}{6} \times \frac{1}{4} = \frac{1}{24}$

Using diagrams R

Recap Venn diagrams, Sample space diagrams and Two-way tables

	Car	Bus	Wak	Total
Boys	15	24	14	53
Girls	6	20	21	47
Total	21	44	35	100

The possible outcomes from rolling a dice

	1	2	3	4	5	6
H	H1	2H	3H	4H	5H	6H
T	1T	2T	3T	4T	5T	6T

The possible outcomes from tossing a coin

Knowledge Goals: Maths

Unit 11 – Construction and loci

Topic	Video	Resource
Students will learn how to construct SSS, ASA and SAS triangles.	Watch this (SSS) Watch this (ASA) Watch this (SAS)	Complete Q1,2,3
Students will learn how to construct a perpendicular bisector.	Watch this	Complete Q1,2
Students will learn how to construct an angle bisector	Watch this	Complete Q3
Students will learn how to construct perpendicular to a given line from a given point	Watch this	Complete Q1,2,3
Students will learn how to interpret scale drawings and scales on a map.	Watch this	Complete Q1,2,3
Students will learn how to solve simple LOCI problems	Watch this	Complete Q1&2

Construct a perpendicular from a point

Use a compass and draw an arc that cuts the line. Use the point to place the compass.

Keep the compass the same distance and now use your new points to make new interconnecting arcs.

Connecting the arcs makes the bisector.

If P is a point on the line the steps are the same.

Locus of a distance from two lines

Also an angle bisector
This cuts the angle in half

From the angle vertex draw two arcs that cut the lines forming the angle.

Keep the compass the same size and use the new arcs as centres to draw intersecting arcs in the middle.

Join the vertex to the intersection.

Scale drawings

A picture of a car is drawn with a scale of 1:30

For every 1cm on my image is 30cm in real life

The car image is 10cm

Image : Real life
1cm : 30cm
10cm : 300cm

Locus of a distance from a point

All points are equidistant (the same distance) from the fixed point in the middle.

If the point is in the corner it can only make a quarter circle.

Equipment needed
The radius is the distance from the fixed point.

Knowledge Goals: Music

1. Rock		
1	Rock	Broad genre of popular music starting with Rock and Roll and splitting into many sub genres. Defined usually by an upbeat tempo, electric guitars, Drums and bass.
2	Musicians	ACDC, Black Sabbath, Green Day, Led Zeppelin

2. Grunge		
1	Grunge	Underground genre started in Seattle, America. Known for its stripped back, lo fi sound with fuzzy distorted guitars
3	Musicians	Nirvana, Soundgarden, Perl Jam, Alice in chains

3. Britpop		
1	Britpop	British guitar based music influenced by bands such as The Beatles and The Kinks. Known for its British lyrics and bright and catchy sound.
2	Musicians	Blur, Oasis, Suede, Elastica, The Verve
3	Battle of Britpop	Battle of Oasis vs Blur for top spot in the UK charts in 1995

4. Musical characteristics		
1	Distortion	Guitar effect used to create a 'Gritty sound'
2	Low fi	The quality of the sound. A deliberate choice to add imperfections in the sound quality.
4	Fuzz	Describing the timbre or sound of an electric guitar
5	Stripped Back	Not many instruments. Thin texture to the music

5. Performance Techniques		
1	Rehearsing	Practicing your part in a song to ensure it is accurate and in time. Also refers to practicing as an ensemble.
2	Timing	Playing with the pulse of the music
3	Projection	Performing with appropriate, clear dynamics
4	Fluency	Playing accurately without any hesitation or pauses
5	Balance	The dynamic levels of each instrument. Being able to hear all instruments in the performance

6. Key Vocab Musical elements		
1	Melody	The main tune, played on instruments or sung.
2	Chords	Two or more notes played at once.
3	Chord Sequence	A pattern of chords
4	Riff	A repeated musical pattern used in Rock, Pop and Jazz.
5	Dynamics	Volume of the music

7. 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..
4	Bridge	A section in a song that links two other sections.
5	Instrumental	A section in the music with no lyrics and the instruments contain the melodic interest.
6	Outro	The ending section of a song.

Other musical styles linked to this: British invasion, Pop Punk, Post Britpop, Punk, Heavy Metal, Synth Pop

Knowledge Goals Music

Don't Look Back In Anger — Oasis

19

(C - F - C - F)

(C) Slip inside the (G) eye of your (Am) mind,
Don't you (E) know you might (F) find (G), a better place to play. (C)
(Am)(G)

(C) You said that (G) you'd never (Am) been,
But all the (E) things that you've (F) seen (G), slowly fade away. (C)
(Am)(G)

(F) So I start a (F6) revolution from my (C) bed,
'Cause you (F) said the brains I (F6) had went to my (C) head
(F) Step outside the (F6) summertime's in (C) bloom
(G) Stand up beside the fireplace,
(E) take that look from off your face
(Am) 'Cause you ain't ever (G) gonna burn my (F) heart out. (G)

CHORUS

(C) So (G) Sally can (Am) wait, she (E) knows it's too (F) late
As we're (G) walking on (C) by. (Am) (G)
Her (C) soul (G) slides (Am) away, (E) "But don't look (F) back in anger."
(G) I heard you (C) say. (G) (Am) (Em) (F) (G) (C) (G)

(C) Take me to the (G) place where you (Am) go,
Where (E) nobody (F) knows (G), if it's night or day. (C)(Am)(G)
(C) Please don't put your (G) life in the (Am) hands,
Of a (E) rock and roll (F) band (G), who'll throw it all away. (C)(Am)(G)

(F) Gonna start a (F6) revolution from my (C) bed,
'Cause you (F) said the brains I (F6) had went to my (C) head
(F) Step outside the (F6) summertime's in (C) bloom
(G) Stand up beside the fireplace,
(E) take that look from off your face
(Am) 'Cause you ain't ever (G) gonna burn my (F) heart out. (G)

(CHORUS)
(F) (Fm) (C) (3x) (G) (E) (Am) (G) (F) (G) CHORUS

Don't look (F6) back in anger. Don't look (F6) back in anger -
I heard (C) you say... (G) (Am) (E) (F) (G) at least not (C) today.



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Ukulele

Piano/Guitar

EXERCISE 1: INTRO/VERSES

EASY CHORD SEQUENCE (RH)

EXERCISE 2: INTRO/VERSES

EASY CHORD SEQUENCE (RH) + EASY BASS LINE (LH)

EXERCISE 3: INTRO/VERSES

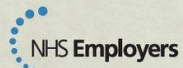
CHORD SEQUENCE (RH), RHYTHM + EASY BASS LINE (LH)

PAYING THE PRICE OF ALCOHOL

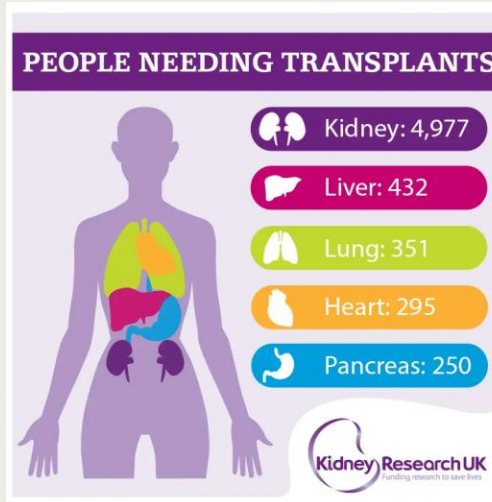
DRY JANUARY



Alcohol Concern
The charity making sense of alcohol



Knowledge goals: PDev



GOOD PERSONAL HYGIENE PRACTICES

- Brush and floss daily
- Washing hands frequently
- Wear clean clothes
- Bathe regularly
- Crop your nails
- Sleep tight
- Groom well

GROWTH ETERNAL

SHARE
grow with your friends

Understanding Schizophrenia

NHS

Schizophrenia is a mental health condition that involves a disconnect between one's own thoughts and ideas with reality.

About 220,000 people are being treated for schizophrenia in the UK by the NHS.

About 1 in 100 people will suffer an episode of schizophrenia at some point in their lives.

Schizophrenia can sometimes be passed down in families.

Those living with Schizophrenia come from all walks of life and social backgrounds.

The exact cause of schizophrenia is unknown.

HEALTHYHOSPO.COM

Childhood Vaccination Timeline

Information about vaccinations can also be found in your child's 'Red Book' health record. You will be contacted by your GP surgery when it's time to get your child protected.

NHS
Staffordshire and Stoke-on-Trent Integrated Care Board

- Age 8 weeks**
 - 6-in-1 (dose 1)** Protects against diphtheria, tetanus, whooping cough, polio, haemophilus influenzae type B and hepatitis B. Bacterial and viral conditions that babies and young children are particularly vulnerable to.
 - MenB (dose 1)** The most common form of meningitis that can lead to severe brain damage.
 - Rotavirus (dose 1)** A highly infectious stomach bug.
- Age 12 weeks**
 - 6-in-1 (dose 2)**
 - Pneumococcal vaccine** Protects from a range of bacterial infections from pneumonia to ear infection.
 - Rotavirus (dose 2)**
- Age 16 weeks**
 - 6-in-1 (dose 3)** A single dose of vaccine provides only partial protection. Your child needs all doses to receive full protection.
 - MenB (dose 2)**
- Age 1 year**
 - Hib/MenC** Protects against infections and boosts protection already gained from the 6-in-1.
 - MMR (dose 1)** Measles, mumps and rubella. All highly infectious with the potential for long-term damage.
 - Pneumococcal vaccine (dose 2)**
 - MenB vaccine (dose 3)**
- Age 2 years**
 - Flu (annual)** Nasal spray. Children can be "super-spreaders".
 - A super spreader is someone who transmits an infectious disease to an unusually large number of other people.
- Age 3 years and 4 months**
 - MMR (dose 2)**
 - 4-in-1 pre-school booster** Increases existing protection against diphtheria, tetanus, whooping cough and polio.



**English
Schools'
Athletic
Association**

Knowledge Goals: PE

Athletics



Throwing: Shot Putt, Discus, Javelin

- Grip** – I understand the correct reasons for gripping the implement and how it enhances the overall throw.
- Stance** – I can use the Power Position and maintain a high elbow throughout the throw.
- Movement** – I am able to use the circle and run way to develop greater speed when throwing the Javelin, Discus and Shot Putt.
- Delivery & Release** – I am able to release the Javelin, Discus and Shot Putt at the right angle and release speed with greater control and consistency.

Sprinting: 100m, 200m, 400m, Hurdles

- Warm Up** – I am able to design and implement a warm up that increases with intensity and takes in to consideration all the relevant actions necessary for sprinting.
- Start Technique** – I am able set up a 4 point start independently and then use a split arm technique to start the race.
- Acceleration** – I can demonstrate an efficient start technique using my arms correctly, keep my feet low to the ground and gradually become taller as I accelerate.
- Maintenance & Finish** – I understand the importance of a good knee drive keeping my toe and knee up and I can run a controlled bend with a smooth transition to straight running.



Jumping: Long Jump, Triple Jump, High Jump

- Warm Up** – I am able to design and implement a warm up that increases with intensity and takes in to consideration all the relevant actions necessary for jumping.
- Run Up** – I can use a sprinting technique with control and hit my take-off mark consistently before take-off
- Take Off** – I can take off accurately from one foot using an active foot landing, tall body position and begin to understand the use of my arms to help.
- Flight** – I am able to keep my free leg parallel to the ground when in flight and begin to practise alternative methods to gain extra distance.
- Landing** – I can land with my heels first, absorb my knees, and bring my arms down and behind on landing.

Endurance: 800m, 1500m

- Warm Up** – I am able to design and implement a warm up that increases with intensity and takes in to consideration all the relevant actions necessary for endurance.
- Technique** – I am able demonstrate a very effective technique with my arm action similar to sprinting but not as vigorous and my foot placement controlled.
- Pacing** – I am able to break a set distance into phases or use check markers and be able to run them in a set time.
- Tactics** – I can make the correct decisions during the race as to whether I am able to speed up or slow down.

Knowledge Goals: PE

Half Term 5: Tier 3 Vocabulary

#	Key word	Definition
1	Aerobic Exercise	Exercise with Oxygen
2	Anaerobic Exercise	Exercise without Oxygen
3	Fosbury Flop	A jumping technique in High Jump
4	The V grip	A type of grip in Javelin
5	Chin, Knee, Toe	Body position when setting up for throwing events; shot put & discus
6	Split Time	Some runners use splits to see if they're pacing a distance evenly and staying on track to hit a specific goal
7	4-point start	A sprint start position involving both hands and feet
8	Pocket to Socket	A sprint technique involving the arm action

Notes:

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Athletics – skills
& techniques



English Schools
Athletics
Association

Knowledge Goals: Physics – Mains electricity

Properties of mains electricity


The mains potential difference is **230 volts** (V). The mains frequency is **50 hertz** (Hz).


Equations to learn

$$\text{energy} = \text{power} \times \text{time}$$

$$\text{energy} = \text{charge} \times \text{potential difference}$$

Symbols

Fuse 

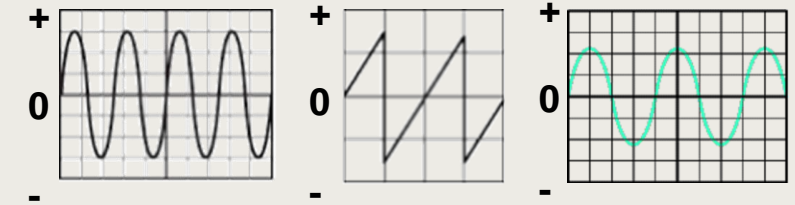
Double insulated 

Types of potential difference

A **direct** potential difference has a constant value. Examples include batteries and solar cells.



An **alternating** potential difference continually changes direction. Examples include the mains.



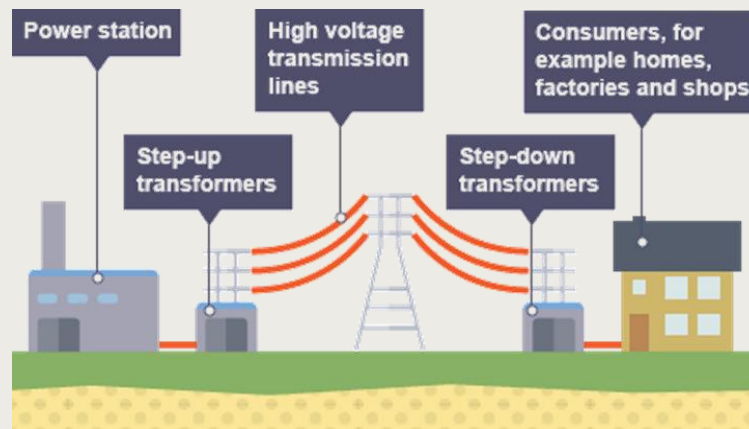
Types of wires

Appliances are wired using 2- or 3-core cables. 3-core cables are used when appliances need to be earthed because they have metal parts that users can touch. Thicker cores are needed for appliances drawing more current.

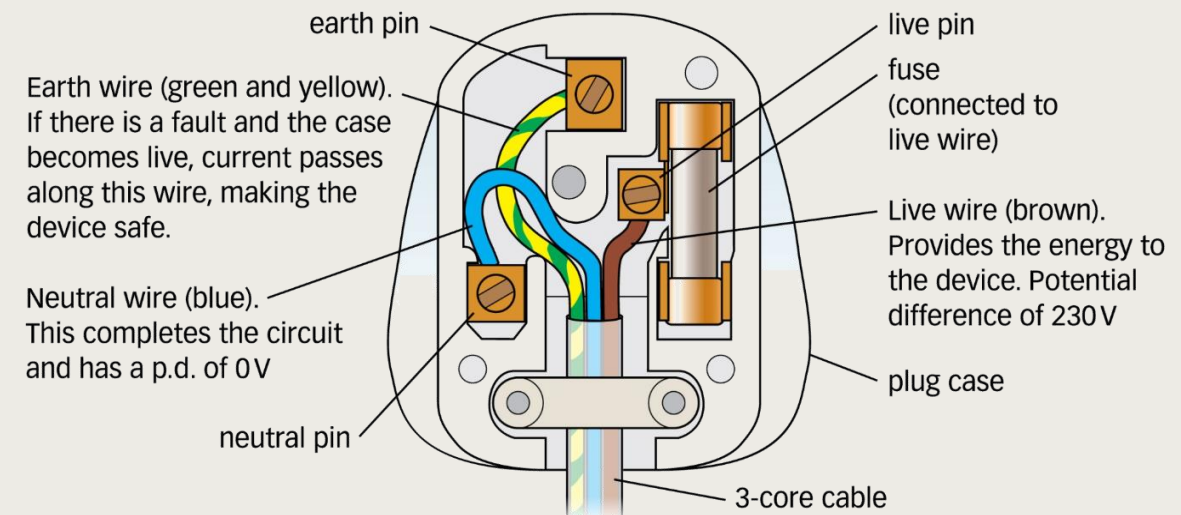


The National Grid

Electrical power is transferred from power stations to consumers using the National Grid. Step-up transformers are used to increase the potential difference from the power station to the transmission cables which means the current is reduced and less energy is wasted by heating the cables.



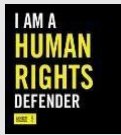
Wiring in plugs



Knowledge Goals: PRE – Living Our Best Lives

Human Rights and Social Justice – Christianity

- All people are children of God
- ‘All made in the image of God’
- Agape – selfless and unconditional love and how Christians should treat every human
- Follow the example set by Jesus who himself campaigned for social justice
- Many Christian charities follow the principles of agape ‘Love one another.’
- Christians should take a stand against unfairness and injustice
- Follow the example of Martin Luther King Jr and Oscar Romero



Martin Luther King Jr

- Baptist minister who fought racism and discrimination in the US
- Started the Civil Rights movement.
- Non-violent protest. Speeches. Marches.
- “Turn the other cheek” “all one in Christ” ‘do not seek revenge’

Human Rights and Social Justice – Humanist

- Humanists oppose racism, sexism, torture and persecution
- It is up to the individual to make a fair and just society
- Every human life has dignity
- Humanists were amongst the founders of the UN and they support many human rights organisations

Amnesty International – work to campaign for human rights worldwide. They use non-violent protest. Are against death penalty

Human Rights and Social Justice – Islam

- Muslims are expected to oppose injustice and oppression-judged on this on Judgement day
- The Qur’an and hadith says that equality is really important “equal as the teeth on a comb.”
- Humans have a duty to create a just and fair society. Every human has dignity with Islam – given by Allah
- “Whoever kills one person, it is like they have killed all of humanity. Whoever saves one, it is as if he has saved all of humanity” Qur’an 5:32
- Even criminals should not be mistreated as all deserve dignity and respect.
- The Ummah shows the bond of all Muslims in the world to care for all
- Charity encouraged- zakah and Sadaqah

Malala Yusuf

- Islamic human rights campaigner
- Wanted girls in the Swat Valley in Pakistan to have equal access to school as boys
- Used her blog and spoke to the media
- “show forgiveness and speak for justice.”
- Shot by the Taliban in the head 2012 (survived)

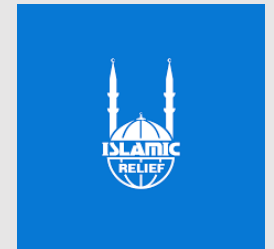
Christian Aid

- Christian charity that helps anyone in need in 60 countries
- Aims to stop poverty
- Projects, campaigns and fair-trade activities
- Christian Aid Week – fundraising in UK



Islamic Relief

- Islamic charity that helps anyone in need
- Aims to feed the poor and respond in disasters
- Emergency aid, sponsor orphans.
- Zakah – main source of funds



Oscar Romero

- Born in El Salvador in 1917. Archbishop in 1977
- Spoke out against corruption of the government and the rich. Radio.
- Murdered in the chapel where he was performing mass in 1980.
- We are all ‘one in Christ’ and should be treated fairly.

<u>Prejudice and Discrimination -Christianity</u>	<u>Prejudice and Discrimination -Islam</u>	<u>Liberation Theology</u> Jesus devoted his life to helping to liberate (free) people from unjust conditions. The belief that Christians should stand up against unfair governments – even when facing death. E.g. MLK and Malala.
<ul style="list-style-type: none"> • All humans created equal “in the image of God” • Moses told to “not deprive the foreigner of justice” – treat refugees and immigrants well • Jesus spent most of his time helping the outcasts of society – women, prostitutes, beggars, lepers • “There is neither Jew, nor gentile, male or female, for you are all one in Christ.” Bible • Racism is wrong – Story of the Good Samaritan • Work of Martin Luther King Jr 	<ul style="list-style-type: none"> • Allah made humans by sending the angels to get different coloured soil – shows diversity • Prophet Muhammad made Bilal, a freed black slave, the first Muezzin (man who says the call to prayer). • The last sermon by Muhammad challenged racism “a white person is not better than a black person, nor a black person better than a white.” • The Christian/Muslim Forum works to end racism and promote interfaith dialogue. 	

Freedom of religious expression

France has banned all religious symbols from schools. Is this right? Should religious believers be allowed to wear the symbols of their faith? Crosses? Hijabs? Niqabs (face veils)? Religious people spread their faith by:

- Taking part in a mission to spread their religion to other countries
- Evangelising – trying to convert someone to their faith
- Leaflets (tracts), door-to-door visits, preaching in public places.

Knowledge Goals: Spanish

¿Qué aplicaciones usas? Uso... para... subir y ver videos compartir fotos pasar el tiempo organizar las salidas con mis amigos contactar con mi familia descargar música chatear aprender idiomas controlar mi actividad física publicar mensajes Es / No es... cómodo/a	What apps do you use? I use... (in order) to... upload and watch videos share photos pass the time organise to go out with my friends contact my family download music chat learn languages monitor my physical activity post messages It is / It isn't... handy / convenient	divertido/a peligroso/a práctico/a rápido/a fácil de usar popular útil gratis adictivo/a mi red social preferida una pérdida de tiempo la mejor app Estoy enganchado/a a...	fun dangerous practical quick easy to use popular useful free addictive my favourite social network a waste of time the best app I am hooked on...
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¿Qué estás haciendo? Estoy... tocando la guitarra hablando por teléfono jugando con mi móvil comiendo pizza tomando el sol esperando a... viendo una peli	What are you doing? I am... playing the guitar talking on the phone playing on my phone eating pizza sunbathing waiting for... watching a film	leyendo durmiendo escribiendo pensando en salir actualizando mi página de Facebook editando mis fotos	reading sleeping writing thinking of going out updating my Facebook page editing my photos
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¿Quieres salir conmigo? No puedo porque... está lloviendo tengo que... visitar a (mi abuela) cuidar a (mi hermano) quiera... subir mis fotos	Do you want to go out with me? I can't because... it's raining I have to... visit (my grandmother) look after (my brother) I want... to upload my photos	quedarme en casa dar una vuelta ¡Qué pena! ¿A qué hora quedamos? ¿Dónde quedamos? En la plaza Mayor. Vale	to stay at home to go for a wander What a shame! What time shall we meet? Where shall we meet? In the main square. OK
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¿Qué te gusta leer? los tebeos / los cómics los periódicos las revistas las novelas de ciencia ficción	What do you like reading? comics newspapers magazines science fiction novels	las novelas de amor las historias de vampiros las biografías	romantic novels vampire stories biographies
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¿Con qué frecuencia lees? todos los días a menudo de vez en cuando una vez a la semana dos veces al mes	How often do you read? every day often from time to time once a week twice a month	una vez al año nunca un ratón de biblioteca un(a) fan del manga	once a year never a bookworm a manga fan
---	--	--	---

¿Qué es mejor, e-books o libros en papel? Los e-books... cuestan menos que los libros tradicionales son más... transportables ecológicos cansan la vista usan batería	What is better, e-books or paper books? E-books... cost less than traditional books are more... portable environmentally-friendly tire your eyes use battery	Las páginas... no tienen números una ventaja una desventaja Leer en formato digital... protege el planeta es más barato depende de... la energía eléctrica	The pages... don't have numbers an advantage a disadvantage Reading in digital format... protects the planet is cheaper depends on... electricity
---	--	--	---

La familia el padre la madre el padrastro la madrastra el hermano la hermana el hermanastro la hermanastra el abuelo la abuela el tío la tía	Family father mother step-father step-mother brother sister step-brother step-sister grandfather grandmother uncle aunt	el primo la prima el sobrino la sobrina el marido la mujer el hijo la hija el nieto la nieta mayor / menor	male cousin female cousin nephew niece husband wife son daughter grandson granddaughter older / younger
---	--	--	---

¿Cómo es? Tiene los ojos... azules verdes marrones grises grandes pequeños Tiene el pelo... moreno castaño rubio rojo corto largo rizado liso ondulado	What is he/she like? He/She has... eyes blue green brown grey big small He/She has... hair dark-brown mid-brown, chestnut blond red short long curly straight wavy	Tiene... pecas Lleva... gafas barba bigote Es... alto/a bajo/a delgado/a gordito/a gordo/a calvo/a moreno/a rubio/a castaño/a pelirrojo/a No es ni gordo/a ni delgado/a	He/She has... freckles He/She wears... glasses a beard a moustache He/She is... tall short slim chubby fat bald dark-haired fair-haired brown-haired red-haired He/She is neither fat nor thin
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¿Cómo es de carácter? Como persona, es... optimista pesimista trabajador(a) perezosa/a hablador(a)	What is he/she like as a person? As a person, he/she is... optimistic pessimistic hard-working lazy chatty	tímido/a divertido/a serio/a gracioso/a generoso/a fiel	shy fun serious funny generous loyal
---	---	--	---

¿Te llevas bien con tu familia y tus amigos? Me llevo bien con... No me llevo bien con...	Do you get on well with your family and friends? I get on well with... I don't get on well with...	Me divierto con... Me peleo con...	I have a good time with... I argue with...
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¿Cómo es un buen amigo / una buena amiga? Un buen amigo / una buena amiga es alguien que... te ayuda te apoya te conoce bien te acepta	What is a good friend like? A good friend is someone who... helps you supports you knows you well accepts you	te hace reír te dice la verdad Conoci a... mi mejor amigo/a hace (cuatro) años tenemos mucha en común	makes you laugh tells you the truth I met... my best friend (four) years ago we have a lot in common
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Knowledge Goals: Textiles

Frayer Model Template

Definition	Characteristics
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____
Examples	Non-examples

Frayer Model Template

Definition	Characteristics
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Examples	Non-examples

The image shows a Frayer Model Template, a tool used for learning new vocabulary words. It is a large rounded rectangle divided into four quadrants by a vertical line and a horizontal line. The quadrants are labeled as follows: top-left is 'Definition', top-right is 'Characteristics', bottom-left is 'Examples', and bottom-right is 'Non-examples'. Each quadrant contains ten horizontal lines for writing. In the center, where the two lines intersect, there is a smaller rounded rectangular box.

Frayer Model Template

Definition	Characteristics
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Examples	Non-examples