BRISTOL METROPOLITAN ACADEMY

Knowledge Organisers 2020-21 Year 7 – Term 5

19th April 2021	Week A
26th April 2021	Week B
3rd May 2021	Week A
10th May 2021	Week B
17th May 2021	Week A
24th May 2021	Week B

Complete your homework on the night stated e.g. if it is a Monday week 1 you will complete DT and English homework.

	Week A	Week B
Monday	English/DT	Science/MFL
Tuesday	Maths/Drama	ICT/PE
Wednesday	Science	English
Thursday	RS/Music	Geography/Art
Friday	History	Maths

How to use your knowledge organiser

Top tips:
1. Focus on the information you are most unsure of first
2. Follow the timetable in your homework book to make sure you are revisiting subjects equally
3. Don't panic if you don't remember all the information first time, keep revisiting it
4. You can ask your parents/carers to test you/check your work

Look

What topic/subject are you focusing on?

What task have you been set?

Write

Complete the task in your homework book.

Make sure to write the date, subject and topic you are focusing on (and underline them).

Check

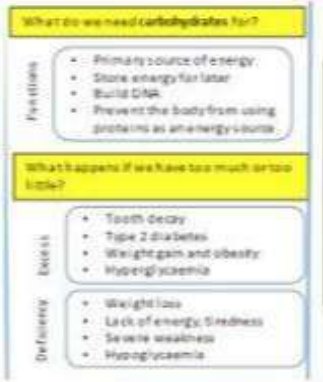
Once you have finished go back and check your work against the knowledge organiser. Make any corrections crossing out mistakes with a single line.

Why not ask someone at home to check your work with you?

Self quizzing

You need to create 5 questions (with their answers) about the content on the knowledge organisers.

Top tip! Use subject specific language e.g. function. If you aren't sure what they mean, look it up, ask an adult or ask your teacher.



Questions you might consider:

1. What is a key function of carbohydrates?

It is our primary source of energy.

Revision

Here you are recording key facts/concepts to help you remember them.

You might write these key events out like a timeline.

Key events

5th January 1066 Edward the Confessor dies, leaving no heir to the English throne.

6th January 1066 Harold Godwinson is crowned King of England

Keyword/theme development

Here you are focusing on keywords/ themes and practising memorising them.

Key Terms	Definitions
State of matter	Matter is divided into three states: solid, liquid, and gas
Melting	Change of state from solid to liquid
Freezing	Change of state from liquid to solid
Evaporation	Change of state from liquid to gas
Condensation	Change of state from gas to liquid

Copying these words into your book can help you to remember them.

MORE HELP AND IDEAS AT THE BACK OF THIS BOOKLET!

Contents:

DRAMA

Rote play

This is the oct of pretending to be somebody else, of toking on a *role,* The role may be from a script Or a character you hove created. Thinki• 9. ^«' ng and even feeling differently to your *ordinary* self con help you empothise with thot person and better understand on issue or theme.

This explorotive strotE'9r woUld be effective if you were using the work of Konstontin Stonistavski as your chosen style. He took the approach thot the actor should inhabit the role that they're ploying. The actor shouldn't only know what lines they need to soy and the motJvotfon for those lines, but shoutd also know every detail of thot character's life offstoqe as well as onstage.

You could use a role on the wall diogro m to help you. Divide an outline of a person in two from top to bottom. Write down what the character thinks and feels on one side and what other characters think and Beef about your character on the other side. You con also include factual information about the role you ore playing around the Outside of the figure. This wil(help you understand your character better.

Cross-clotting

Cross-cuNing is a device to move between two or more scenes staged in the space at the some time. It's important thot the oudfente know which port <•f the oction they should follow so one port of the action remains in still image while another scene Is played out, directing the audience's *Mac us.* Using this technique you con move backwards and forwards between seporote locations and time fromes.

Kor example, a theatre company is creating a piece of wark exploring Christmas. The production team wont to show the differences between a rich ond poor family on this day. Two separate scenes ore developed and placed onstoqe. Instead of P*^Y'^9 *'multoneously the rich fnmily scene ploys first with children opening mony presents. This freezes in a still image and the poor family come to life with their simple qifts providing a contrast. This scene ends in o still imoge ond the group cross-cut to the rich family once again who ore having a lavish Christmas dinner. They freeze and the poorer family's dinner is enacted.

Cross-cutting is on excellent way to explore the contrast between situations by making differences clear for tne audience. JL con also be used to give them additional information. It enobles performers to move quickly between locotions and scenes witt\out inter r uptfng the flow of the dr0mo they're creating. Whilst it*s a performance technique it con also be used within a workshop to pfoce cherocters within different time fromes for explorotive purposes.

Hot-seating

This is on exercise to deepen understanding of chorocter. An actor sits in the hot-seat and is questioned **in role**, spontaneously answering questions they may not hove considered before.

Hot-seating helps on actor become more familiar with their role. The questioners should also oct as observers as feedback can be very useful.

Ask questions that force the actor to consider the life of their chorocter in depth and beyond the world of the play. You could ask them about home life, childhood, family relationships, hopes, fears, hobbies and how they feel about other characters.

Make a note of any mannerisms that emerge which can be incorporated into performance, such as twisting hands out of nervousness or speaking slowly with a serious tone of voice and fixed eye contact. If something works for the chorocter you are playing, keep it.

Narrating

Narrating is odding a spoken commentary for the audience about the oction onstoge. A narrotor is like a storyteller informing the audience about the plot.

Norretion is useful in making a story more understondable for the audience. It also makes the drama **stylised**. This means thot it becomes non-naturolistic because the audience are owore throughout that a story is being told and the **fourth wall** is broken.

Norroting con make a drama more understondable or stylised in a number of ways:

- an actor con speok the commentary over the action happening in the drama
- a character con say out loud what they think the audience needs to know about the characters or the situation of which they're a part, which is known as self-narrating
- an actor can just tell the audience what they need to know in between scenes
- a character con read or write a diary or letter that informs the audience what is important for them to know about what is happening or going to happen

This explorative strategy would be effective if you were using Brecht, Theatre in education, Musical theatre or Artaud as your chosen style. Try it out in rehearsal to see if it works in your performance.

Still image

This is a frozen picture which communicates meaning. It's sometimes called a **freeze frame** or tableau. It can provide **insight** into character relationships with a clear focus upon use of space, levels, body language and facial expression.

Still images can be used in a variety of ways. During a long speech they might be used to punctuate the words with clear imagery, making the drama onstage more interesting by adding a visual dimension to the work. They can also be used for marking the moment to explore a key moment in time.

You could use still images to create a photo album as an insight into a character's post life and relationships. It would be possible to use them to break down a complicated plot into clear snapshots of its key moments in development. Still image is also a useful way to **storyboard** early devised work.

Still images can be **naturolistic**, a photograph of an important moment or **obstract**, more representational of feelings or an event.

A picture paints a thousand words. Condensing emotions, events or relationships into an image is an excellent way of ensuring these are communicated in a detailed and effective way.

Using mime and gesture on stage

Mime is the art of demonstrating an action with an object that doesn't exist. It's a very disciplined and precise act. The actor must pay real attention to detail for it to be effective. If you want the audience to 'believe' you're using an object, make sure that it doesn't just simply 'vanish' after you've finished with it. If you're miming drinking at a party and then need your hands for something else, put the imaginary glass down first.

The set can also be mimed and again, the same principles apply. If a table is mimed the actors need to be fully aware of where that 'table' is onstage. They mustn't move through it or the illusion is broken. They should all be able to place things on it so we see that it is a consistent size and height.

Messy mime can look amateurish. If you do use mime in a piece of theatre, ensure that you practise making your movements precise so that the audience can clearly see what it is you are doing.

Drama Year 7 Term 5 & 6 Knowledge organiser

Characterisation

Every person is a unique individual. Your role may have similarities to you but may also be vastly different. The way a person feels, thinks and the experiences they have had affect the way they move and speak.

Think about the role you are playing in detail. Consider where the person is from, what sort of accent they have and how old and how confident they are. Ask yourself how this affects their pace, weight on the ground and posture. No two characters are ever completely alike. A skilled actor is versatile and able to change vocal and physical characteristics to communicate a role effectively.

Mime

Mime could mean:

- working in silence, or with few sounds or words, to show activities, eg painting a wall or opening a door.
- working with dialogue but while miming any props or set, eg using the audience as a mirror to apply make-up while addressing another character onstage.
- Physical theatre, which often incorporates mime techniques and where actors can also mime items of set or props

Thought-tracking and hot-seating

A thought-track is when a character steps out of a scene to address the audience about how they're feeling. Sharing thoughts in this way provides deeper insight into the character for an audience.

In rehearsal it's an effective way of exploring characters and scenes in greater depth. Stopping the action and sharing thoughts enables the actor to fully understand how their character thinks or feels at any given moment. Sometimes the character might feel something different to the words they're speaking. This is called **subtext** and thought-tracking is a useful way of exploring it to realise the many layers within a scene.

Year 7 D&T – Gumball Machine Project

Analyse the above Gumball Machines using ACCESS FM.

We use **ACCESS FM** to help us write a **specification** - a list of requirements for a design - and to help us **analyse and describe** an already existing product.

ACCESS FM - Helpshee

A is for **Aesthetics**

Aesthetics means **what does the product look like?**
What is the: Colour? Shape? Texture? Pattern? Appearance? Feel? Weight? Style?

C is for **Cost**

Cost means **how much does the product cost to buy?**
How much does it: Cost to buy? Cost to make?
How much do the different materials cost? Is it good value?

C is for **Customer**

Customer means **who will buy or use your product?**
Who will buy your product? Who will use your product?
What is their: Age? Gender?
What are their: Likes? Dislikes? Needs? Preferences?

E is for **Environment**

Environment means **will the product affect the environment?**
Is the product: Recyclable? Reuseable? Repairable? Sustainable? Environmentally friendly? Bad for the environment?
6R's of Design: Recycle / Reuse / Repair / Rethink / Reduce / Refuse

S is for **Size**

Size means **how big or small is the product?**
What is the size of the product in millimeters (mm)? Is this the same size as similar products? Is it comfortable to use? Does it fit?
Would it be improved if it was bigger or smaller?

S is for **Safety**

Safety means **how safe is the product when it is used?**
Will it be safe for the customer to use? Could they hurt themselves?
What's the correct and safest way to use the product? What are the risks?

F is for **Function**

Function means **how does the product work?**
What is the products job and role? What is it needed for? How well does it work? How could it be improved? Why is it used this way?

M is for **Material**

Material means **what is the product made out of?**
What materials is the product made from? Why were these materials used? Would a different material be better? How was the product made? What manufacturing techniques were used?

Target Market

A **target market** is the market segment (group of potential customers) which a particular product or service is marketed (advertised) to.

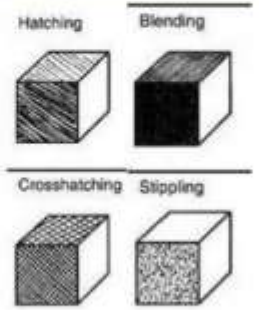
It's better to use materials from renewable resources — ones that are replaced naturally as fast as we use them up. For example, pine from well-managed plantations is quite a sustainable choice. (But if the timber has to be transported a long way that'll probably use up a lot of fossil fuels.) Natural fibres used for textiles (e.g. cotton) are all renewable.

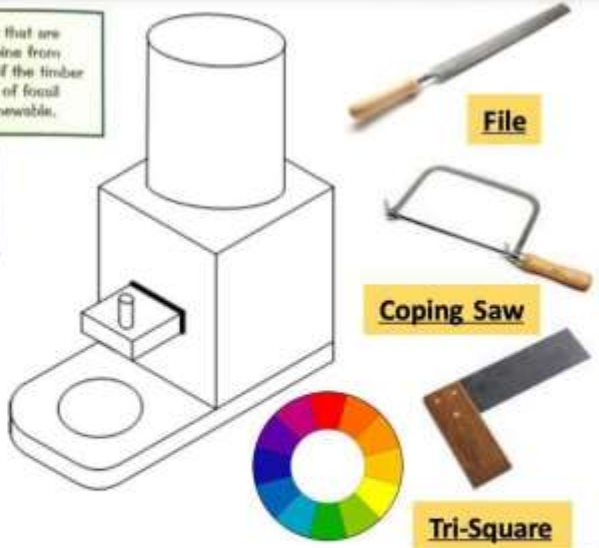
Using recycled materials means that fewer new resources are needed, and often less energy is used. For example, recycling old food cans takes much less energy than mining and processing new metal.

1 km = 1000 m

1 m = 100 cm

1 cm = 10 mm





PINE: **Pine** is a softwood which grows in most areas of the Northern Hemisphere. There are more than 100 species worldwide. **Properties**: **Pine** is a soft, white or pale yellow **wood** which is light weight, straight grained and lacks figure. It resists shrinking and swelling.

Evaluation

Designers evaluate their finished products or prototypes in order to test whether they work well and if the design can be corrected or improved. Whatever you have designed it is important to evaluate your work constantly during the project.
Evaluation can take a variety of forms:

- General discussion with other pupils, staff and others.
- Questionnaires / surveys carried out at any time during the project.
- Your personal views, what you think of existing designs.
- Most important of all - what do you think of your designs, prototypes and finished products ?
- Can you think of any other ways of evaluating your work ?

Remember to always suggest improvements when evaluating!

Testing

Testing a prototype / developed design is a very important part of the design and manufacturing process. Testing and evaluation, simply confirms that the product will work as it is supposed to, or if it needs refinement.

In general, testing a prototype allows the designer and client to assess the viability of a design. Will it be successful as a commercial product? Testing also helps identify potential faults, which in turn allows the designer to make improvements.

File

Coping Saw

Tri-Square

Tenon Saw

Bench Hook

Pillar Drill

Vertical Sander

ENGLISH

Plot Summary - The Tempest by William Shakespeare

1. A ship is caught in a tempest and begins to sink.
2. Prospero tells Miranda that he caused the storm.
3. Ariel fetches Ferdinand, who falls in love with Miranda.
4. Antonio and Sebastian plot to kill Alonso, the King of Naples.
5. The ship's jester and butler meet Caliban and feed him alcohol.
6. Caliban suggests that they should kill Prospero, and Ariel overhears.
7. Prospero uses magic to scare Alonso and spoil Caliban's plot.
8. Prospero forgives the passengers for their former betrayals.

Characters

Prospero	The play's protagonist, and father of Miranda. Twelve years before the events of the play, Prospero was the duke of Milan. His brother, Antonio, with Alonso, king of Naples, usurped him, forcing him to escape in a boat with his daughter. The honest lord Gonzalo aided Prospero in his escape. He uses magic to punish his enemies.
Miranda	The daughter of Prospero, Miranda was brought to the island at an early age and has never seen any men other than her father and Caliban. Because she has been away from the world for so long, Miranda's ideas of other people tend to be chi\dishly positive. She is compassionate, generous, and loyal to her father.
Ariel	Prospero's spirit helper. Often called "he", his gender and physical form are ambiguous. Rescued by Prospero from a tong imprisonment by the witch Sycorax, Ariel is Prospero's servant until Prospero decides to release him. He is mischievous and everywhere, able to travel the length of the island in an instant and to change shapes at will. He carries out virtually every task that Prospero needs accomplished in the play.
Caliban -	Another of Prospero's servants. Caliban, the son of the witch Sycorax, welcomed Prospero to the island. Caliban believes that the island rightfully belongs to him and has been stolen by Prospero. His speech and behaviour is sometimes coarse and brutal, as In his drunken scenes with Stephano and Trincuto.

Themes

Forgiveness + repentance - Antonio, his brother, wronged him by dethroning and banishing some twelve years ago. Antonio was supported by Alonso and Sebastian. These three characters get punished.

The difficulty of distinguishing "Man" from "Monster" - The identity of Caliban remains ambiguous in this play. Sometime he is addressed as monster and in some places he is called man.

Context

Famous storm	Shakespeare's portrayal of the catastrophic storm that opens the play probably comes from reports of a real shipwreck which occurred in Bermuda in J609. The Tempest directly references Bermuda in Act I, scene ii, when Ariel says Prospero asked him to make a storm.
Collonialfsm/ period of discovery	Shakespeare was Inspired by Michel de Montalgne's "Of the Cannibals". Gonzalo's speech in Act II envlsions how he would rule the island- by rejecting the usual rules of a civilized society, and instead copying a "primitive" society.
Shakespeare's final play	The imagery of Propspero throwing down his staff has been interpreted as Shakespeare giving up his craft at the end of his career.

Vocabulary and Terminology

Usurped - take (a position of power or importance) illegally or by force.	Ambiguous open to more than one interpretation; not having one obvious meaning.
Colonialism - taking control over another country, occupying it with settlers, and exploiting it economically.	Enchantment - the state of being under a spell; magic.
Prose - written or spoken language in its ordinary form, without metrical structure.	Verse - writing arranged with a metrical rhythm, typically having a rhyme.
Comic relief - humorous content in a play intended to offset more serious episodes.	Betrayal - the action of betraying one's country, a group, or a person; treachery.

FOOD

What do we need proteins for?

Functions
- Build enzymes and hormones
- Build cell membranes
- Repair and maintain tissues
- Defend the body (antibodies)
- Secondary source of energy

What happens if we have too much or too little?

Excess
- Kidney and liver diseases
- Weight gain

Deficiency
- Kwashiorkor
- Slowing growth rate
- Swelling

Protein alternatives

Vegetarians and **vegans** don't consume meat so instead they use protein alternative products which are manufactured in order to provide protein in a diet and protein rich foods.

Soy chunks

Tofu

Textured vegetable protein (TVP)

Tempeh

Beans, lentils, chickpeas

What do we need carbohydrates for?

Functions
- Primary source of energy
- Store energy for later
- Build DNA
- Prevent the body from using proteins as an energy source

What happens if we have too much or too little?

Excess
- Tooth decay
- Type 2 diabetes
- Weight gain and obesity
- Hyperglycaemia

Deficiency
- Weight loss
- Lack of energy, tiredness
- Severe weakness
- Hypoglycaemia

What do we need fats for?

Functions
- Source of energy
- Insulation
- Dissolve vitamins
- Build hormones
- Build cell membranes

What happens if we have too much or too little?

Excess
- Obesity
- Hypertension
- Coronary heart disease
- Fatty liver disease
- Type 2 diabetes

Deficiency
- Weight loss
- Vitamin deficiency
- Heart disease
- Feeling cold

There are two different types of fats

Visible fats

Fats you can see, such as on meat are often saturated.

Invisible fats

Unsaturated fats you cannot see, such as in nuts and avocados. They are often good for the brain,

Saturated
-  Butter
-  Cream
-  Eggs

Unsaturated
-  Olive oil
-  Avocado

Keywords:
Macronutrients – nutrients we need in large amounts: carbohydrates, proteins, fats.
Food miles – how far food has travelled from farm to fork.
Intensive farming - a method of farming aimed at increasing the amount of food produced.
Food provenance (origins) – how food is grown, reared and caught and how it is produced and transported.
Allergen – a substance or food that may cause an allergic reaction.
Food intolerance - a reaction to food.
Coeliac disease – an intolerance to gluten.
Allergy – when the body reacts suddenly and seriously to an allergen.
Vegan: Someone who doesn't include any products from an animal in their diet.

Food miles: The distance from the field to the plate of the consumer – importing food products from distant countries increases food miles.

Food provenance (UK):

Food that is caught: Fish such as mackerel, haddock and salmon and shellfish such as mussels and scallops.
Food that is grown: Crops: wheat and barley. Fruit and vegetables: apples, potatoes, carrots, lettuce, sprouts and soft fruits like raspberries and strawberries.
Food that is reared: cows for milk and meat, sheep, pigs and chickens for meat and eggs.

Organic farming

- ✓ No chemicals
- ✓ Few or no pesticides
- ✓ No artificial fertilisers
- ✓ No herbisides
- ✓ No GM feed or seeds
- ✓ Antibiotics only used when necessary
- ✓ Animal welfare standards are kept

Carbon footprint

A **carbon footprint** is defined as: The total amount of greenhouse gases produced to directly and indirectly support to produce a product. This is usually expressed in equivalent tons of **carbon** dioxide (CO_2)

14 common allergens.

Factors that affect food choice

Coeliac – cannot eat products containing gluten.
Lactose intolerance – the body can't digest the sugar lactose in dairy products.
Vegetarian: No meat in the diet
Vegan: No products from animals in the diet e.g. meat, milk or honey.
Religion :
Islam: Requires Halal meat, no alcohol, no pork
Judaism: Requires Kosher food, no meat and dairy together, no pork
Hinduism: No beef

The **eatwell guide** (formerly the eatwell plate) has been produced by the government. The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet.

The eatwell guide is split into the following categories:
- ❑ Fruits and vegetables
- ❑ Potatoes, bread, rice, pasta and other starchy carbohydrates
- ❑ Oils and spreads
- ❑ Dairy and alternatives
- ❑ Beans, pulses, fish, eggs, meat and other proteins.

FRENCH

Free time activities - Year 7 French ARE 5 vocab list

Quand?	When?
Normalement	Normally
D'habitude	Usually
Tous les jours	Every day
Deux fois par semaine	Twice a week
De temps en temps	From time to time
Rarement	Rarely
Souvent	Dften
Quelquefois / parfois	Sometimes

Quels temps fait-il?	What is the weather like?
Il fait beau	It is good weather
Il fait chaud	It is hot
Il fait froid	It is cold
Il fait 25 degrés	It is 25 degrees
Il fait mauvais	It is bad weather
Il pleut	It is raining
Il neige	It is snowing
Il y a des nuages	There are clouds
Il y a des orages	There are storms
Il y a du soleil	It is sunny
Il y a du vent	It is windy
Il y a du brouillard	It is foggy

Quel sport aimes-tu?	What sport do you like?
Jouer au foot	To play football
Jouer au rugby	To play rugby
Jouer au tennis	To play tennis
Jouer au golf	To play golf
Jouer au volley	To play volleyball
Jouer au basket	To play basketball
Jouer au ping-pong	To play table tennis
Faire du vélo	To do some cycling
Faire du ski	To do some skiing
Faire du patin â glace	To do some ice skating
Faire de la natation	To do some swimming
Faire de la gymnastique	To do some gymnastics
Faire de l'équitation	To do some horse-riding
Faire de l'athlétisme	To do some athletics

Qu'est-ce oue tu aimes retarder?	What do you like to watch?
J'aime retarder	I like to watch
Les actualités	The news
La comédie	The comedy
Le dessin animé	The cartoon
Le documentaire	The documentary
L'émission (f)	The programme
Le feuilleton	The soap opera
Le film comique	The comedy film
Le film d'amour	The romantic film
Le film d'action	The action film
Le film d'horreur	The horror film
Le film policier	The detective film
Lejeu télévisé	The game show
La série	The series

Qu'est-ce que tu aimes faire?	What do you like to do?
Regarder la télévision	To watch TV
Ecouter de la musique	To listen to music
Aller au cinéma	To go to the cinema
Lire un livre	To read a book
Faire du shopping	To go shopping
Aller au parc	To go to the park
Aller au gymnase	To go to the gym
Rencontrer des amis/copains	To meet friends
Jouer du piano	To play the piano
Visiter ma famille	To visit family
Aller en ville	To go to town
Faire la cuisine	To cook
Chanter	To sing
Nager	To swim
Faire mes devoirs	To do my homework
Télécharger de la musique	To download music
Surfer sur Internet	To surf the Internet
Jouer aux jeux-vidéos	To play video games
Tchatter avec mes amis	To chat online with my friends
Prendre des photos	To take photos
Regarder des vidéos marrantes	To watch funny videos
Envoyer des textos	To send texts
Acheter en ligne	To buy online
Regarder des clips Youtube	To watch Youtube videos
Ecrire un email	To write an email
Utiliser mon portable	To use my mobile phone

Free Time Activities Year 7 French ARE 5 Knowledge Organiser

Sports and other hobbies with opinions + inf. including jouer and faire
Weather.

Cabot Learning Federation

Finir, jouer & vendre are regular verbs which follows the patterns below; which we have seen before. The verb "faire" is irregular but important, especially for this topic with sports.

Pronouns	**Finir**–to finish	**Jouer** – to play	**Vendre**–to sell
je (I)	Je fin**is**– I finish	Je jou**e** – I play	Je vend**s**– I sell
tu (you)	Tu fin**is**– you finish	Tu jou**es** – you play	Tu vend**s**– you sell
il (he), **elle** (she), **on** (we)	il/elle/on fin**it** - He/she/we finishes	il/elle/on jou**e** - He/she/we play	il/elle/on vend– he/she/we sell
nous (we)	Nous fin**issons**– we finish	Nous jou**ons** – we play	Nous vend**ons**– we sell
vous (you) (pl. or formal)	Vous fin**issez**– you finish (pl. or formal)	Vous jou**ez** – you play (pl. or formal)	Vous vend**ez**– you sell (pl. or formal)
ils/elles (they)	ils/ elles fin**issent**– they finish	ils/ elles jou**ent** – they play	ils/elles vend**ent**– they sell

Faire – to do

Je fais - I do
Tu fais – you do
Il/elle/on fait – he/she does/we do
Nous faisons –we do
Vous faites – you (pl) do
Ils/elles font – they do

Now you should be able to create some of your own questions using the question words below.

Quand? – When?
Qui? – Who?
Où? – Where?
Combien? – How many?
Qu'est-ce que...? What?
Comment? – How?
Pourquoi? – Why?
Que? – What?
Quel(le)? – Which?

How to improve your writing?
When writing in French, you can make your sentences better by adding the following:

- Range of opinions and reasons
- Connectives to extend your sentences
- Qualifiers e.g. très, assez
- Comparisons
- Rather than just using 'je', write verbs using other pronouns

GEOGRAPHY

Year 7 Geography

Term 5

Why is Russia a vast wilderness?

A climate graph **shows average annual** precipitation **(rainfall) and** temperature **throughout the year for a particular area.**

Russia has a continental climate **with tWO main seasons:**

Long, dark, cold winters

Brief, often warm, summers.

Biomes of Russia	
Steppe	**An area of grassland, too dry for forests but with really fertile, good for farming soils called chernozems**
Taiga	**An area of** coniferous **trees (evergreen) that covers 60% of Russia.**
Temperate forest	**An area containing deciduous trees, such as oak and ask, can be found in the west of Russia**
Tundra	**An area found in the north, where temperatures drop to -50°C in the winter. Trees cannot grow because the ground is frozen all year, this is called permafrost.**

- **Russia shares borders with many countries including: China, Ukraine, North Korea and Norway.**
- **Russia is the largest country in the world, in terms of land area and covers 17 million km²**

Physical landscapes of Russia

Russia's longest river is the Volga. at 3692km long (Europe's longest river).

Caucasus Mountains **where the highest peak is** Mount Elbrus

Lake Baikal was formed **by a rift valley.** It is the **oldest and deepest lake in the WOFId**

Ural Mountains **form a spine**

Kamchatka peninsula has 70 volcanoes **and is a wilderness of rivers**

Adaptations — **how do plants and animals survive in the tundra?**

Grow close to ground to protect them from the wind and cold

Large, hard hooves to break ice to find water

Two layers of fUF tO trap heat

Darker leaves help absorb energy from SLJFI

Cottongrass

Shallow root system because soil is often frozen

Musk ox

Huddle together in winter to retain heat

Cabot Learning Federation

My Free Time
German Knowledge Organiser

Freetime	activities
Was machst du gern in deiner Freizeit? **Ich spiele gern am Computer/ Fu§ball/Tennis/Rugby/Basketball/Klavier/im Orchester.** **Ich hore gern Musik im Radio/am Computer.** **Ich schwimme gern/tanze gern/chatte gern im Internet/teile gern Fotos auf Instagramm/bastele gern/male gern...** **Ich gehe gern ins Kino/ins Café/in die Stadt/einkaufen**	What do you do in your freetime7 I play on the computer I play football etc **I like listening to music on the radio/ On my computer** **I like to swim, dance, chat on the** internet, share photos on Instagram, **make models.** I like going to the cinema, cafés, into town, shopping

Expressing likes using Ich mag

Ma gst du Sport?

Ja, ich mag Ta nzen/Fun bal l/Tenn is/Ba sketball

Rugby mag ich nicht. Das ist zu gefa hrl i ch.

Ich mag Schlittschuhlaufen/Schneeboard-fahren/Skatebaardfahren/Pferde-reiten/Spazierengehen/laufen undtaulenzen

Do you Ike Sport?

Yes, I :ike Dancing etc

I don't like rugby. It's too dangerous

I like Ice skating, snowboarding, skateboarding, horse riding, running and chilling

Leute	People
Mit	**With**
meinen Freunden	**My friends**
Meinen Eltern	**My parents**
meiner Familie	**My familie**
Meinem Bruder	**My brother**
Meiner Schwester	**My sister**

Orte

I m Park/in der Stadt/inn Garten/zu Hause/bei mir

Places

In the park/ in town/in the garden/at hone/at my house

Regular Verbs

spielen

Ich spiele

Du spielst

Er,sie,es,man spielt

wir spielen

ihr spielt

Sie,sie s pielen

Other useful verbs

machen, horen, basteln, schwimmen, tanzen, gehen...

Irregular verbs

sehen

Ich sehe
Du siehst
Er,sie,es,man sieht

wir sehen

ihr seht

Sie,sie sehen

Other irregular verbs

lesen (du liest), nehmen (du nimmst), fahren (du fahrst), tragen (du trdgst)

Ich fahre gern rad, Ich sehe gem fern, ich lese gem Romane und Comics.

**Siehst du gern fern*
Liest du gem Romane? Fa hrst du gern rad***

HISTORY

Enquiry: Why did the reformation matter?

History —Year 7 Knowledge Organiser Topic 5

MET

Summary

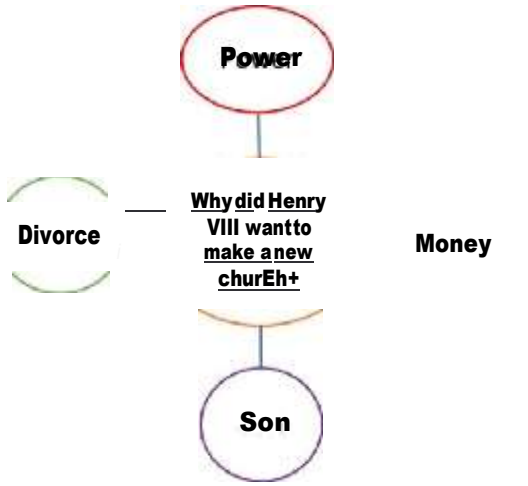
1	The reformation	**Attempts to reform the Catholic Church and the development of Protestant Churches in western Europe are known as the Reformation.**

Key Events

2	1509 — Henry VIII becomes King of England
3	1517 - Martin Luther **nailed 95 problems with the Catholic church to a church door sparking the** Protestant Reformation.
4	**25'h January 1533 — Henry VIII secretly married Anne Boleyn.**
5	**23 May 1533 — Henry VIII marriage to Catherine of Aragon was annulled, they were divorced.**
6	**1536-1540 — The closure of English Monasteries by Henry VIII.**

Key People

7	Martin Luther	**A German monk that thought that the Catholic Church had too much power and was corrupt he set up the** new Protestant **churchs**
8	**Pope Ciement II**	**The head of the Catholic Church that refused to give Henry VIII a divorce.**
9	**Henry VIII**	**King of England from 1509-1547. Head of the Church of England.**
10	Thomas Cromwell	**Henry VIII put him in charge of getting rid or the monasteries.**



PEE Paragraphs

To write a paragraph you explain your points in history we use PEE.

Point: **Make your point to answer the question.**

One *reason Henry VIII made a new church was because he needed money.*

Evidence: Give facts that support your p O Rt

He didn't have any money because...

Explain: Give reasons why this evidence backs up your point.

By making a new church Henry *VIII knew he would be oble to gain money*

Key Terms

11	heir	**Next in line to the throne.**
12	Roman Catholic	**The Christian church of which the Pope, or bishop of Rome, is the supreme head.**
13	Protestant	**Someone who follows the principle of Christianity using beliefs developed from the Reformation.**
14	Break with Rome	**Henry VIII decided to do this when the Pope would not authorise his divorce from Catherine of Aragon. He decided to break away from the Catholic Church and become head of the Church of England.**
15	Dissolution of the Monasteries	**The monasteries that were run by the Catholic Church and were homes for Monks and Nuns were closed down. They also provided hospital care and charity to the local people.**

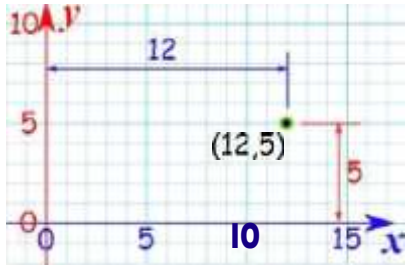
Six Wives of Henry VIII

Coordinates

A set of values that show an exact position.

On graphs it Is usuaJly a pair of numbers. the first number shows the distance along, and the second number shows the distance up or down.

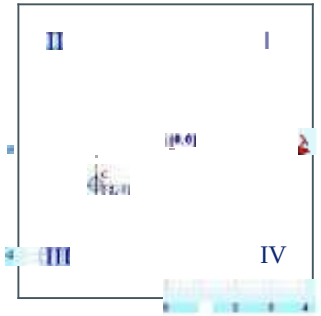
Example: the point {1Z,5) Is 12 units along, and 5 units up.



The Origin

The point (0,0} is given the special name "The Oriqin ", and is sometimes given the lerter "0".

Four Quadrant When we include negative values, the x and y axes divide the space up inta 4 pieces:



Quadrant	(horizontal)	(vertical)
I	Positive	Positive
zz	Negative	Positive
IIE	/Vegar/ve	Negative
zv	Positive	/Negacive

Useful Links

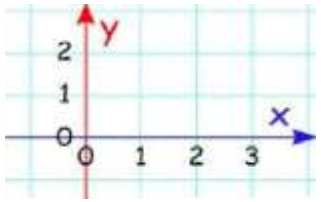
httos://vle.mathswatch.co.uk/vle/ https://corbettmaths.com/contents/

https://www.bbc.co.uk/bitesize/guides/zg3rd2p/revision/1

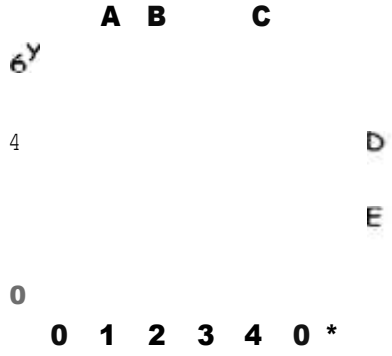
)5

The /e/r-r/phr horizontal} direction is commonly callecl X.

The up-down (vertical) direction is commonly called Y.



Write **the equaTions for each of these lines.**

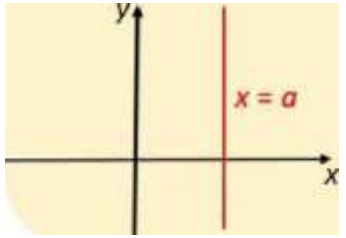


A	x = 1
B	x = 2
C	x = 4
D	y = 4
E	y = 2

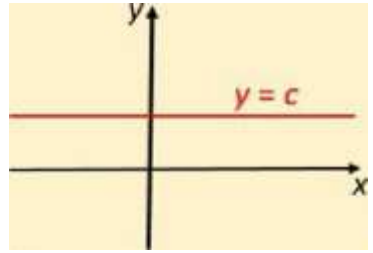
Keywords

Quadrant: four quarters of the coordinate plane
Coordinate: a set of values that show an exact position
Horizontal: a straight line from left to right (parallel to the x axis)
Vertical: a straight line from top to bottom (parallel to the y axis)
Origin: (0,0) on a graph. The point the two axes cross
Parallel: Lines that never meet

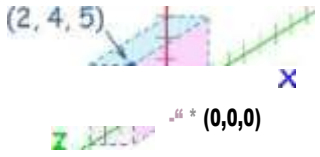
A vertical line has an equation of the form x = o. It has a an undefined slope.



A horizontal line has an equation of the form y = c. It has a slope of 0.



3D coordinates — Cartesian coordinates can be used for locating points in 3 d imensians



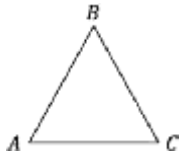
Here the point (2, 4, 5} is shown in three-dImonsfonal Cartes lan coordmates

Angle and Line notation

When we describe angles and lines we use mathematical notation.

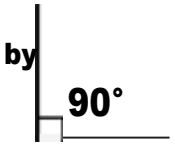
Triangles:

We can describe this triangle as *bABC*



Right Angle (90°)

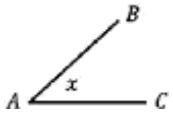
We can show a right angle by using a small square.



Angles:

We can describe angle z as *zBAC*

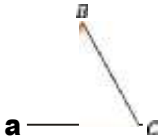
This is an angle produced by drawing a line from vertex B to A, then to C. We could also describe this angle *SCAB*



Sides

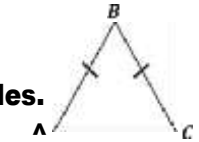
We can use describe the orange side of this triangle as side AB

It goes between vertex A and vertex B

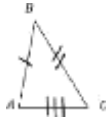


Sides of equal length

We can use small lines to show equal sides. In this triangle side AB and BC are equal

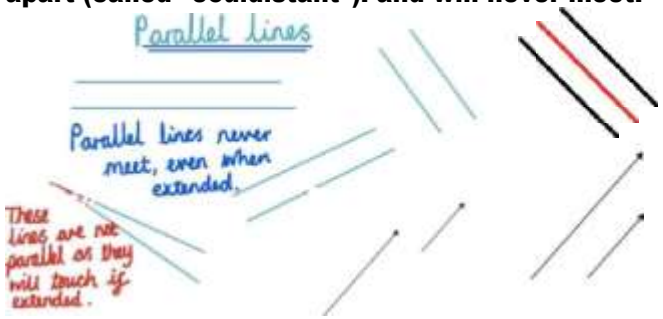


This triangle has no equal sides.

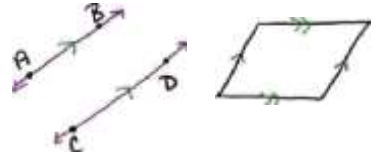


Parallel and Perpendicular Lines

Lines are parallel if they are always the same distance apart (called "eouidistant"). and will never meet.



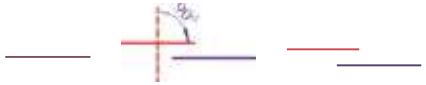
We use arrows to show lines are parallel to each other.



This parallelogram has two sets of parallel lines, shown hv the twn sets nf

Lines are perpendicular if they are at a right angle (90°) to each other. We use the right angle symbol to show this

What is the difference between perpendicular and parallel lines?

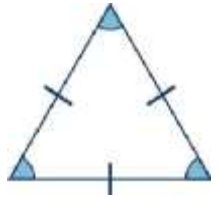


When we rotate a perpendicular line by 90° it becomes parallel (but not if it touches!) Likewise, parallel lines become perpendicular when one line is rotated 90°.

Properties of Triangles

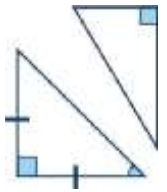
A vertex, is point where two or more line segments meet. This is often called a corner.

TrinnQ Yes hnve 3 sides o nd 3 vertices. The **total o} the ang(es in a triangle is 180°.**



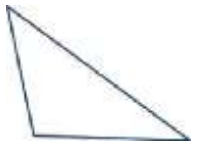
An eqiivtnternt **triangle is a reg ular** pot9go n. It hns sides o{ equnl length end eoch eng te is 60 ’

An isoscetes triangle hos two stdes o{ equol length ond two nngles oJ equnl size.



A right-angled triangle always has one 90 ' angle.

It con be tsosceles o r scnlene.



A scolene triangle has no equa(sides or angles.

Useful links

BBC Bitesize

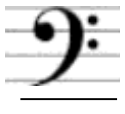
MathsWatch

Maths is fun

Music Notation – Year

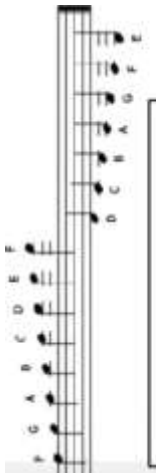
KEY:

- Music is written on the staff
- Bar lines divide the music into different bars
- The time signature tells you how many beats per bar
- The clef tells you which set of notes you are using
- Notes tell you how long to play
- Rests tell you not to play (and for how long)



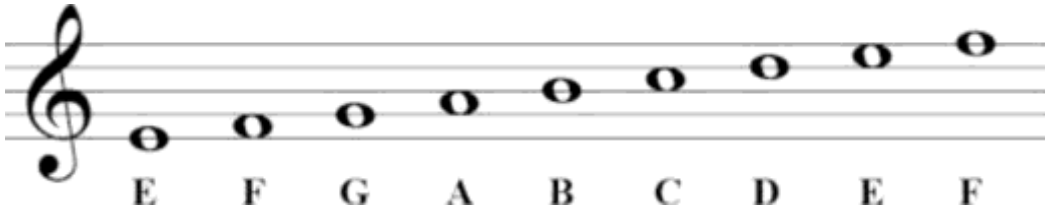
Bass clef pitches are played with your LEFT ahnd

Treble clef pitches are played with your RIGHT hand

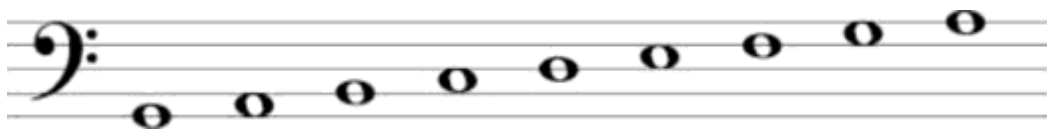


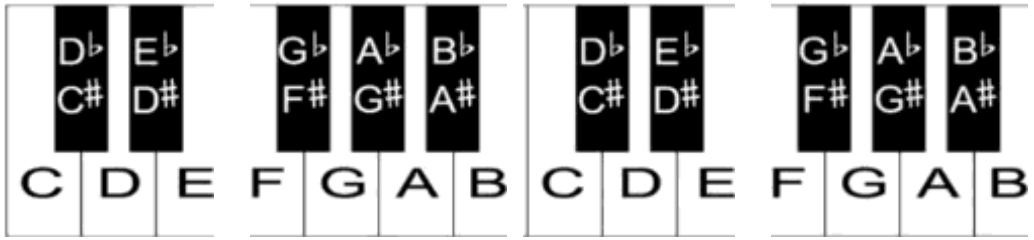
Ledger lines are short dashes (-) used when the music is too high or low to fit on the staff

Treble Clef Notes

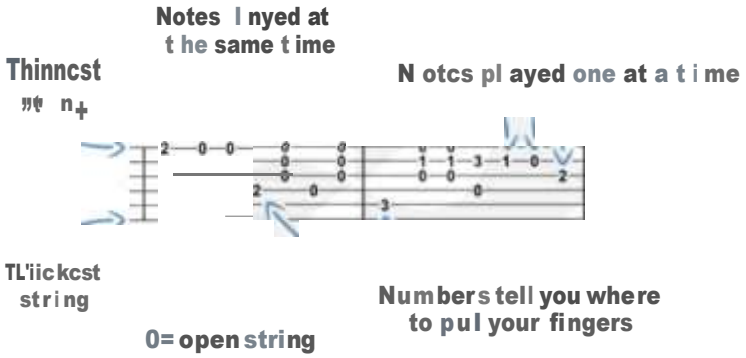


Bass Clef Notes



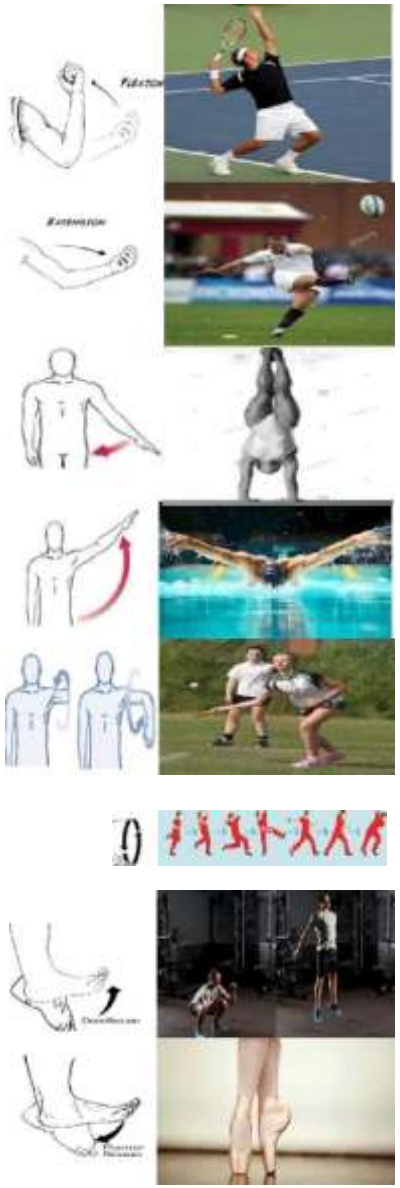


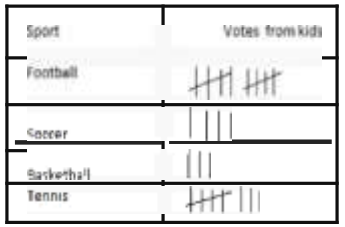
Guitarists sometimes use a different kind of music notation called Tablature or TAB

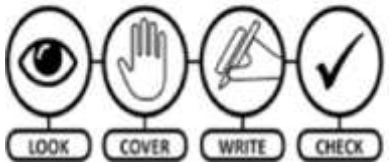


Key Stage 3 Knowledge organiser — Year 7 Core PE Unit 3: Analysis Of Performance

Anatomical Movements		
1	Flexion	Decreasing the angle at the joint.
2	Extension	Increasing the angle at the joint.
3	Adduction	Limb moves towards the mid-line of the body.
4	Abduction	Limb moves away from the mid-line of the body.
5	Rotation	A circular movement around a fixed joint.
6	Circumduction	When the limb moves in a circle.
7	Dorsi Flexion	Bending the foot up towards the shin.
8	Plantar Flexion	Bending the foot downward towards the ground.

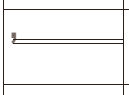
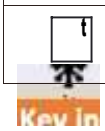


Methods of Performance Analysis			
	Method of analysis	Explanation	Example
9	Verbal feedback	Spoken feedback used to improve performance levels.	
10	Tally chart	Visual information on the number of items or happenings.	
11	Peer observation	When someone else in the class watches you perform and feeds back to you.	



RS

Philosophy, Religion and Ethics: 7.4: Who are the Sikh Gurus?

Picture	Key Concept	Meaning
	1) Guru	Tmach«r. Sikhs have t0 hurran Gurus and one Guru which is a book.
	2) Guru Granth Sahib	The Sikh holy book, which is the final Guru.
	3) Langar	The food that is freely shared at †he 6urdwara and the kitchen and hall where the Si kh community ea†.
	4) Khalsa	The community of baptised Sikhs thot was started by Guru Gobhind Singh.
	5) Waheguru	This is the Sikh name for the one 6od. It Orleans †he 'grea† teacher who brings light and ends darkness'.
	6) Gurdwara	The Sikh place of worship, it rreans 'the doorway †a the Guru' because the Guru Granth Sahib is kept there.
{	7) Equality	The bdief †hat all people are equdly valuable because †hey havo God's spark in them, for exarrgle in Sikhism both worren and men can join the Khalsa.
	8) Xhanda	The Sikh symbol showing 3 swords and the kara - it represents Sikh responsibili ty to God and to protect the weak in society.

9l Nanak was born in an area of India called the Punjab in 1469. his family was Hindu. There were Sikhs and MuslirrB living in the Punjab and they were often in conflict.

Nanak was sent to a school for Hindu boys, but he left because he only wanted to learn about God.

Nanak's father gave him a job looking after cows, one day the cows ate all the crops in a poor man's field. The poor man got angry and went to see how much damage there had been in the field. When he got there was no damage and no crops missing. Sikhs think this was a miracle.

When he was 30 Nanak went to the river to wash and pray, but he vanished and his friends thought he had died. He reappeared after 3 days and said he had talked to God. Nanak said:
"There is no Hindu or Muslim, only man. Whose path shall I follow? God is not Hindu or Muslim, I shall follow Gods path"

People started following Nanak and called him Guru. He taught that although there are many religions there is only one God. Guru Nanak was a pluralist(someone who believes there are many ways to God.)

When Nanak died he told the Muslims and the Hindus to plant flowers around his grave. The Muslims would plant on one side and the Hindus would plant on the other. Nanak said the flowers would bloom on the side that represented the correct religion. The day after he dies, flowers bloomed on both sides of his grave.

10	Caste system	A system from ancient Indi a used predominantly by Hindus whereby people are born into different classes. Most Hindu's do not follow this today.
11	The festival of Vaishakhi	A Spring festival for Sikhs and Hindus, for Sikhs it marks the formation (creation) of the Khalsa (community of Sikhs).
12	AmrR ceremony	An initiation ceremony that Sikhs go through to join the Khalsa.
13	Singh	Once Sikh men have been through the Amrit ceremony to join the Khalsa they take on the surname Singh which translates as lion. Having thesame surname creates more equality and rejects the caste system.
14	kaur	Once Sikh women have been through the Amrit ceremony to join the Khalsa they take on the surname Kaur which translates as princess. Having thesame surname creates more equality and rejects the caste system.
15	Kanga	One of the 5 k's, it is a special comb that represents cleanliness.
16	kesh	One of the 5 k's, the uncut hair that symbolizes spiritual power.
17	Xara	One of the 5 k's, a steel bangle representing unity, of self and a process of constant learning.
18	Xirpan	One of the 5 k's, a Sikh sword, a symbol of respect and justice.
19	Xachera	One of the 5 k's, a special pair of shorts, a symbol of modesty.
20	Reincarnation	The Sikh, Hindu and Buddhist belief that when you die, a part of you is reborn into a new body. The ultimate goal is to be released from the cycle of reincarnation.

1. Safety

- When handling acids and alkalis in the lab we need to take safety precautions, for example wearing goggles.
- Concentrated Acid is corrosive, and will destroy skin cells.
- Dilute acids have lots of water added, they are an irritant and cause redness or blistering of the skin.

4. pH Scale

- The pH scale measures the strength of acids and alkalis, it runs from 0-14
- neutral solutions are pH 7 exactly
- acidic solutions have pH values less than 7
- alkaline solutions have pH values more than 7
- the closer to pH 0 you go, the more strongly acidic a solution is
- the closer to pH 14 you go, the more strongly alkaline a solution is

2. Acids (pH 1-6)

- **Acids** are a family of chemicals, examples are lemon juice, vinegar and Coca Cola. There is also acid in our stomach.
- Acids contain Hydrogen (H^+) ions.
- **Strong acids** like hydrochloric acid are very corrosive this means they destroy skin cells and cause burns.
- **Weak acids** like vinegar are safe to eat but are still irritant to sensitive parts of the body.

KS3 Science

Acids & Alkalis

5. pH Indicators

- **Indicators** are chemicals that show whether a substance is an **acid or an alkali**
- There are many different indicators, for example **litmus paper and universal indicator**
- There are also natural indicators such as **red cabbage**

3. Alkalis (pH 8-14)

- Alkalis, are a family of chemicals that have a soapy feel, they are also corrosive, examples of these are toothpaste, soap and oven cleaner.
- Alkalis contain Hydroxide (OH^-) ions.
- Alkalis are bases that dissolve in water. Therefore not all bases are alkalis.

6. Neutralisation

- A chemical reaction happens if you mix together an acid and a base. The reaction is called **neutralisation**. A neutral solution is made if you add just the right amount of acid and base together.
- Neutralisation reactions form **salts** the name of the salt depends on the name of the acid, and the metal in the base
- Hydrochloric acid makes **"chlorides"**, Nitric acid make **"nitrates"**, Sulphuric acid makes **"sulphates"**

General equations for neutralisation reactions:

Acid + Metal Hydroxide → Salt + Water

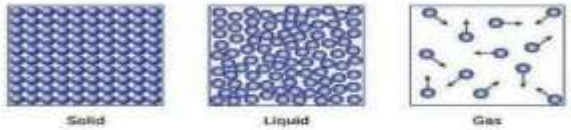
Acid + Metal Oxide → Salt + Water

Acid + Metal Carbonate → Salt + Water + Carbon dioxide

Farmers use lime (calcium oxide) to neutralise acid soils.
Your stomach contains hydrochloric acid, too much of this causes indigestion. Antacid tablets contain bases to neutralise the extra acid.
Wasp stings are alkaline, they can be neutralised using vinegar.

1. Particle Theory

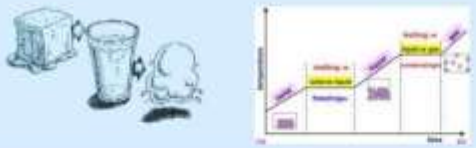
All matter is made up of particles.



- Solids - arranged in a regular pattern and can only vibrate in a fixed position.
- Liquids - arranged randomly but are still touching each other, can move.
- Gases, particles are far apart and are arranged randomly.

2. Physical Changes

In a physical change, the matter's physical appearance is changed, but no chemical bonds are broken or formed. For example, when water is heated from liquid water to gaseous steam, only the appearance of water is changed – both steam and liquid water have the chemical formula H_2O.



3. Chemical Changes

- Chemical reactions create **new** substances.
- Chemical reactions can also be used to **transfer energy** by burning fuels.
- In a chemical reaction the atoms **rearrange** themselves and then **join back together** in a different way.

4. Conservation of Mass

The Law of Conservation of Mass states that mass cannot be created or destroyed.
Therefore, mass stays the same before and after a change of state. For example, 10g of ice melts into 10g of water and 10g of water evaporates into 10g of water vapour. The same applies to other substances.

KS3 Science

Physical and Chemical Changes

5. Conservation of mass in chemical change

No **atoms** are created or destroyed in a chemical reaction. Instead, they just join together in a different way than they were before the reaction, and form **products**. This means that the total **mass** of the products in a chemical reaction will be the same as the total mass of the **reactants**.

6. Diffusion

Diffusion is the movement of particles from a higher concentration to a lower concentration.

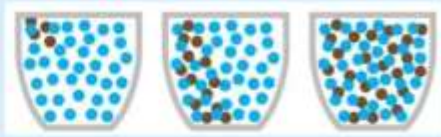
Diffusion will stop when particles spread themselves evenly. Diffusion occurs in liquids and gases but not in solids, because particles in a solid are not free to move.

Diffusion

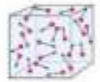
7. Factors affecting Diffusion

There are 2 factors affecting the rate of diffusion:

- Temperature: When temperature increases, particles gain more energy. They can then move and spread out at a higher rate.
- Concentration: When concentration increases, the rate of diffusion increases because there is a steeper concentration gradient.



8. Brownian Motion



Particles in fluids (liquids and gases) move randomly. This is called Brownian motion. They do this because they are bombarded by the other moving particles in the fluid. Larger particles can be moved by light, fast-moving molecules.
Brownian motion is named after the **botanist Robert Brown**, who first observed this in 1827. He used a microscope to look at pollen grains moving randomly in water. At this point, he could not explain why this occurred.

KS3 Science
Magnetism

1. Magnetic Materials

Most materials are not **magnetic**, but some are. A magnetic material can be magnetised or will be attracted to a magnet. These metals are magnetic:

- Iron
- Cobalt
- nickel

Steel is mostly iron, so steel is magnetic too.

26	27	28
Fe	Co	Ni
Iron	Colbalt	Nickel

2. Permanent magnets

A bar magnet is a **permanent magnet**. This means that its magnetism is there all the time and cannot be turned on or off. A bar magnet has two magnetic poles:

- **north pole** (or north-seeking pole)
- **south pole** (or south-seeking pole)

3. Attract or repel?

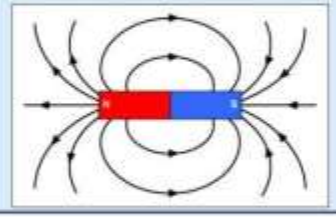
Magnets have two poles, a North pole (N) and a South pole (S).

- **opposite poles attract** (N and S)
- **like poles repel** (N and N, OR S and S)

How can you test if a piece of metal is actually a magnet? Seeing if it sticks to a magnet is not a good test, because unmagnetised iron, steel, cobalt and nickel objects will also do this. So you can only show that an object is a magnet if it **repels a known magnet**.

4. Magnetic fields

A magnet creates a **magnetic field** around it. You cannot see a magnetic field, but you can observe its effects. A force is exerted on a magnetic material brought into a magnetic field. The force is a **non-contact force** because the magnet and the material do not have to touch each other.



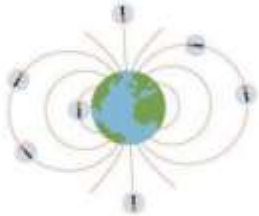
5. More Magnetic Fields

Although we cannot see magnetic fields, we can detect them using iron filings and plot them with a plotting compass

- field lines point from north to south pole
- field lines are more concentrated at the poles.
- The magnetic field is strongest at the poles, where the field lines are most concentrated.

6. The Earth's Magnetic Field

The Earth behaves as if it contains a giant magnet. It produces a magnetic field in which the field lines are most concentrated at the poles. This magnetic field can be detected using magnetic materials or magnets.



7. Navigating with a compass

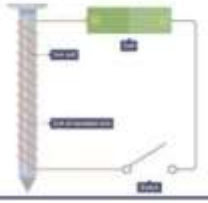
A compass comprises:

- a magnetic needle mounted on a pivot (so it can turn freely)
- a dial to show the direction

The north pole (north-seeking pole) of the compass needle points towards the Earth's north pole. If the needle points to the N on the dial, you know that the compass is pointing north. This lets you navigate outdoors using a map.

8. Electromagnets – extra content

When an electric current flows in a wire, it creates a magnetic field around the wire. This effect can be used to make an **electromagnet**. A simple electromagnet comprises a length of wire turned into a coil and connected to a battery or power supply.



KS3 Science

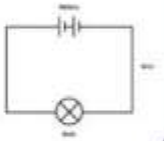
Electricity and Circuits

1. Electric current

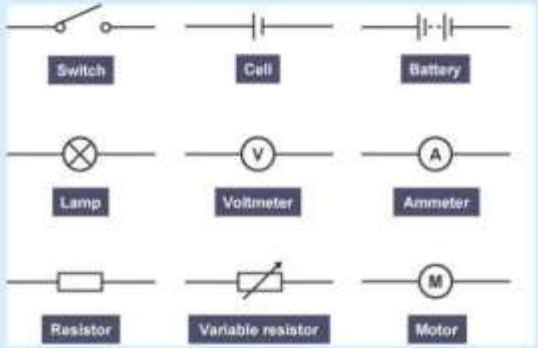
An **electric current** is a flow of charge, and in a wire this will be a flow of electrons. We need two things for an electric current to flow:

- something to transfer energy to the electrons, such as a battery or power pack
- a complete path for the electrons to flow

To do something useful with the electric current, you need to put an electrical component into the circuit (such as a lamp), that can use the current in a useful way

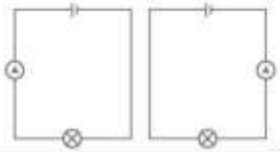


2. Circuit symbols



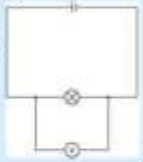
3. Current

Current is a measure of how much electric charge flows through a circuit. The more charge that flows, the bigger the current.
Current is measured in amperes (amps), the symbol is A.
To measure the current flowing through a component in a circuit, you must connect the ammeter **in series** with it.
Current is not used up in a circuit



4. Potential difference

Potential difference is a measure of the difference in energy between two parts of a circuit. The bigger the difference in energy, the bigger the potential difference.
Potential difference is measured in **volts**, the symbol is V.
Potential difference is measured using a device called a **voltmeter**, unlike an ammeter, you must connect the voltmeter **in parallel** to measure the potential difference across a component in a circuit.

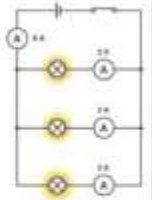


5. Series circuits

A series circuit contains components connected one after the other, like the episodes of a series on TV.
In series circuits, if one component fails, all the components stop working.
Current is the same everywhere in a series circuit.
Current is shared between the Components in a series circuit.
Series circuits use less wire than parallel circuits.

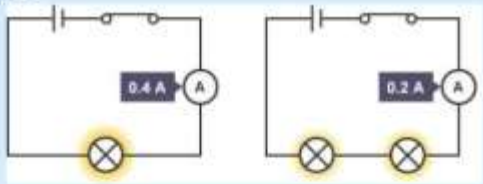
6. Parallel Circuits

Components in parallel circuits are connected on different branches of the circuit.
If one component connected in parallel fails, the other components are not affected.
Current is shared between the components in a parallel circuit.
Parallel circuits are useful if you want to switch components on and off independently, our homes are wired this way.



7. Resistance

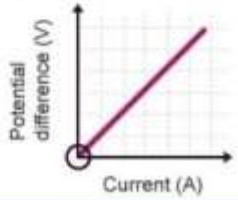
The wires and the other components in a circuit reduces the flow of charge through them. This is called resistance.
The unit of **resistance** is the **ohm**, and it has the symbol Ω
Resistance increases if you add more components to a circuit.



8. Calculating resistance

The equation for calculating resistance is:
Resistance = current x potential difference

If you plot a graph of current against potential difference for a wire, you get a straight line.



SPANISH

Free time activities - Year 7 Spanish ARE 5 vocab list

¿Cdando?	When?
Normalmente	Normally
Generalmente	Us ually
Todos los dias	Every day
Dos veces a la semana	Twice a week
De vez en cuando	From time to time
Rara vez	Rarely
Cuando puedo	When I can
Jamas/nunca	Never
A veces	Sometimes

¿Qué te gusta7	What do you like?
Jugar al futbol	To play football
Jugar al rugby	To play rugby
Jugar al tenis	To play tennis
Jugar al golf	To play golf
Jugar al voleibol	To play volleyball
Jugar al baloncesto	To play basketball
Hacer ciclis mo	To do some Cycling
Hacer esqui	To do some skiing
Hacer patinaje	To do some ice skating
Hacer natacion	To do some swimming
Hacer gimnasia	To do some gymnastics
Hacer equitacion	To do some horse-riding
Hacer atletis mo	To do some athletiCS

¿Qde tiempo hace?	What is the weather like?
	It is good weather
Hace buen tiempo	It is hot
Hace calor	It is sunny
Hace sol	It is cola
Hace fn'o	It is 25 degrees
Hace 25 grados	It is bad weather
Hace mal tiempo	It is raining
Llueve	It is snowing
Nieva	It is windy
Hav viento	There are clouds
Hay nubes	There are storms
Hay tormenta	

¿ Qué te gusta ver?	What do you like to watch?
Me gusta ver	I like to watch
Las noticias	Tne news
La comedia	Tne comedy
El dibujo animado	The cartoon
Eldocumental	The documentary
El programa	The programme
La telenovela	The soap opera
La pelfcula romântica	The romantic film
La pelicula de accion	The action fil m
La pel icula de terror	The horror film
La pelicula policiaca	The detective film
La programa de juegos	The game s how
La serie	The series

¿ Qué te gusta hacer?	What do you like to do?
Ver la television	To watCh TV
Escuchar musica	To listen to music
Ir al cine	To go to tne cinema
Leer un libro	To read a book
Ir de compras	To go shopping
Ir al parque	To go to the park
Ir al gimnasio	To go to tne gym
Ir al polideportivo	To go to the spoKs centre
Salir con mis amigos	To go out with my friends
Tocar el piano	To play the piano
Visitar mi familia	To vis it family
Ir al centro	To go to town
Hacer l a cocina	To cook
Cantar	To s ing
Nadar	To swim
Hacer mis deberes	To do my homework
Desca rgar mdsica	To download music
Navegar por Internet	To surf the Internet
Jugar a los vɔdeojuegos	To play video games
Chatear con mis amigos	To chat online with my friends
Sacar fotos	To take photos
Ver los videos divertidos	To watch funny vi deos
Mandar mensajes	To send texts
Comprar en linea	To buyonline
Ver las videos de youtube	To watch Youtube videos
Escribir un correo electronico	To write an email
usar mi movil	To use my mobi le phone

Year 7 Spanish ARE 5 Free Time Activities Knowledge Organiser

Sports and other hobbies with opinions + inf. including. jugar and hacer
Weather.

Cabot Learning Federation

Llevar, vivir & comer are a regular verbs which follow the pattern below. The verbs "jugar" and "hacer" are irregular but important verbs, especially for this topic on sports.

Pronouns	**llevar**– to wear	**vivir**– to live	**comer**– to eat
Yo (I)	Llev**o** – I wear	Viv**o**– I live	Com**o** – I eat
tú (you)	Llev**as** – you wear	Viv**es** – you live	Com**es** – you eat
el (he), **ella** (she),	Llev**a** - He/she wears	Viv**e** - He/she lives	Com**e** – he/she eats
nosotros (we)	Llev**amos** – we wear	Viv**imos** – we live	Com**emos** – we eat
vosotros (you) (pl. or formal)	Llev**áis** – you wear(pl. or formal)	Viv**is** – you live (pl. or formal)	Com**éis** – you eat (pl. or formal)
Ellos/ellas (they)	LLev**an** – they wear	Viv**en** – they live	Com**en** – they eat

Hacer– to do

Yo hago - I do
Tu haces – you do
Él/ella hace – he/she does
Nosotros hacemos –we do
Vosotros hacéis – you (pl) do
Ellos hacen – they do

Jugar– to play

Yo juego- I play
Tu juegas – you play
Él/ella juega – he/she plays
Nosotros jugamos –we play
Vosotros jugáis – you (pl) play
Ellos/ellas juegan – they play

Now you should be able to create some of your own questions using the question words below. Don't forget the upside down question mark at the beginning of a question.

¿Cuándo? – When?
¿Quién? – Who?
¿Dónde? – Where?
¿Cuántos? – How many?
¿Qué? What?
¿Cómo? – How?
¿Por qué? – Why?
¿Cuál? – Which?

How to improve your writing?
When writing in Spanish, you can make your sentences better by adding the following:

- Range of opinions and reasons
- Connectives to extend your sentences
- Qualifiers e.g. muy, bastante
- Comparisons
- Rather than just using 'yo', write verbs using other pronouns

Year 7 Textiles

Design Brief: You have been asked to design and make a monster themed cushion using the textiles technique 'applique'.

Contextual Inspiration

Jan Pienkowski

Roger Hargreaves

Mark Bradley

Eric Carle

Mark Bradley

Alex Scheffler

Claire Freedman

Monika Philipina

Artist Analysis

- I have researched the work of.. *(artists name)*
- I selected this artist because...
- The artist's work relates to my project theme because...
- *...(artists name)...* 's artwork is *(abstract, surreal, expressionist, minimalist etc.)*
- The techniques the artist has used include...
- The artist has used the following media... *(name the materials and combination of materials if you know it)*
- By looking at the work of this artist, it has given me ideas for my own work. These include...
- I was particularly drawn to the work of this artist over the others because...

Keywords

Textiles

Plain **seam**
analyse
sustainable
embellishment
Woven/ bonded/ knitted
Free machine function
embnNdery **devcop**
Complementary colours
contrast environment
fastening
compare embroidery
equipment
iron
context appliqué
effect improve
colour design shape
machine
oattem line Texture
tone
theme
th...d **Fabric**
sew

Work your way up to use technical language and improve your textiles literacy

Sentence starters

I have designed....
The context of my design is...
My research is useful because...
By researching, I am able to.....
By researching I have found out....
I researched into....
My design is suitable for.....
My design is based upon...
I have planned to..
The order I will work in is...
The most enjoyable part of m project was...
The area I found most challenging was...
I am most pleased with...
***I am pleased with my finished project** because...*
Equipment I used was...

The formal elements

Vear 7 The Natural World

Content: In this project you will

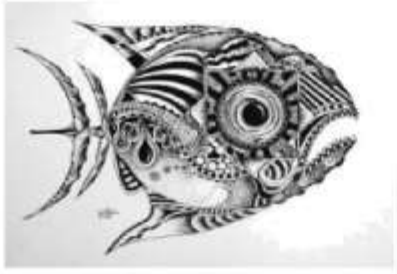
Knowledge—learn about different styles of drawing

Understand—The **processes and techniques artists u5e to create their work and how to critically analyse artists work.**

Skills—observational drawing, illustrative drawing, shading, mark making, and print making showing the influence of other artists in your own work and presentafion.

Printmaking **is the process of creating artworks by** printing, **normally on paper. A prinhng block can be carved from wood, lino, foam or even a potato Artists use print making so they can reproduce the same image several times. Artists sometimes use print making to cre ate a repeat pattern.**

Dmojo **is a street artist from Kuala Lumpar, Malaysia He uses acrylic paint and spray paint to create his murals. He draws his designs in a sketch book small before creating his murals (wall art). He uses pattern and colour in the background of his work fordecoration.**



MARK MAKING IDEAS

Mark making **is a term used to describe the different lines, patterns, and textures we create in a piece of art. It applies to any art material on any surface, not only paint on canvas or pencil on paper.**

Keywords

Natural—existing in or derived from nature; not made or caused by humankind

Mural-a painting **or other work of art executed directly on a wall.**

Illustration-a **picture illustrating an idea in a book, newspaper or leaflet etc.**

Louis Renard's 'Book of Fantastical Fish' was first published in 1719. This was the first known book of colourful ftsh illustrahons.

The boak supposedly shows marine life from the East Indies in 1719 when Europe knew very liftle about nature in that regian. The marine life and fish paintings in the boak have received a certain amaunt of artistic license. A few are even complet ely fictitio us inCl ud ing a po rt ra i t of a m er maid.

Louis Renard's created these ish paintings without ever visiting the East Indies. He based the p a in fi n gs o n d ra w i ng s a n d s cie ntifi c n ote s of at h er artists.

Year 7 - Computer Systems

Strong Passwords

Prevents unauthorised access to a computer system.

- *Uppercase letters*
- *Lowercase letters*
- *Numbers*
- *Symbols*
- *8 or more characters*

Saving Files

It is important to regularly save files/work so that you do not lose your work.

How to save a file?

- Save in your area on the computer
- Save in your documents
- Save with an relevant file name
- Saved in an appropriate folder structure
- Save the file in a folder that is relevant to the topic

Save and Save As

- "Save" updates a file
- "Save As" creates another version of the file

Internet

The Internet is a network of computers around the world.

Networks

Computers connected together that share data and resources.

Social Network

- A network of social interactions and personal relationships.
- A dedicated website or other application which enables users to communicate with each other by posting information, comments, messages, images, etc

Personal Information (Safe to Share)

Information that cannot be used to identify you e.g. your favourite food

Private Information (NOT Safe to Share)

Information that can be used to identify you e.g. Mothers maiden name, Date of Birth, Phone number

Cloud Storage

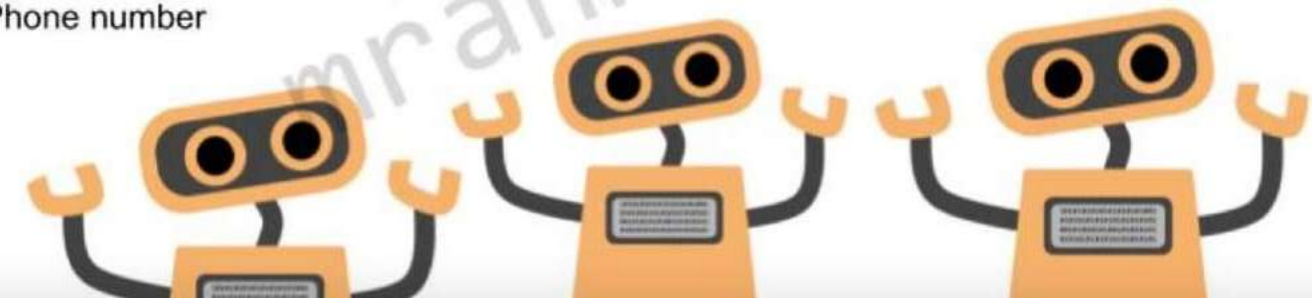
Cloud computing is storage that you can access through the Internet.

Advantages

- Files can be accessed from anywhere
- You have unlimited storage space and can store for free
- Allows you to create more local storage
- Good form of a backup storage
- Does not require expensive hardware

Disadvantages

- You need internet access
- Has the potential to get hacked
- Data could be seen by a third party
- Can be expensive long term



Year 7 - Hardware

Hardware

Any physical component of a computer system.

Internal Hardware: Found inside the computer

External Hardware: Found outside the computer

Peripheral Device

Addition hardware connected externally.

Input Device

Hardware used to put data into a system.

Output Device

Hardware used to present data to a user.

Embedded System

A computer inside of a larger system

Example: Microwave, Dishwasher, Fridge

RAM

Primary Memory - Memory accessed directly by the CPU

Volatile memory (lost when the power is off) used to store data in current use. The CPU fetches data from the RAM.

Storage Devices

Secondary Storage - Long term data store.

Non - Volatile memory (stays when off)

Magnetic - Data on magnetic disks

\+ Relatively cheap

\- Can be damaged easily

Solid State - Data on ROM chips

\+ Fast, shockproof, energy usage

\- Expensive

Optical - Data on disks, read by laser

\+ Cheap and portable

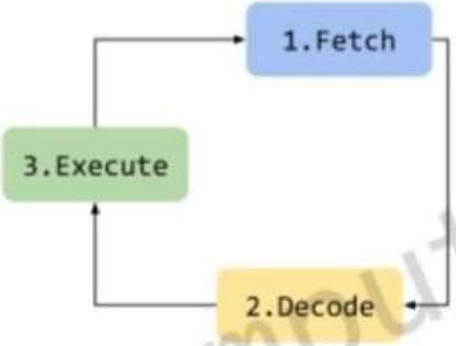
\- Easily damaged

CPU

CPU is a component that processes data

The processor works by using the "Fetch Decode Execute Cycle".

- Instructions are fetched from memory.
- Instructions are then decoded to find out what processing needs to be done.
- Instructions are the executed.

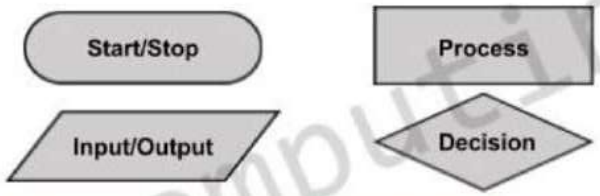


mrahmedcomputing.co.uk

Year 7 - Computational Thinking

Flowcharts

Using symbols to represent algorithms.



Computational Thinking

Algorithm
Step by step list of instructions to complete a task

Abstraction
Process of removing unnecessary details

Decomposition
Process of breaking down tasks into smaller sub tasks

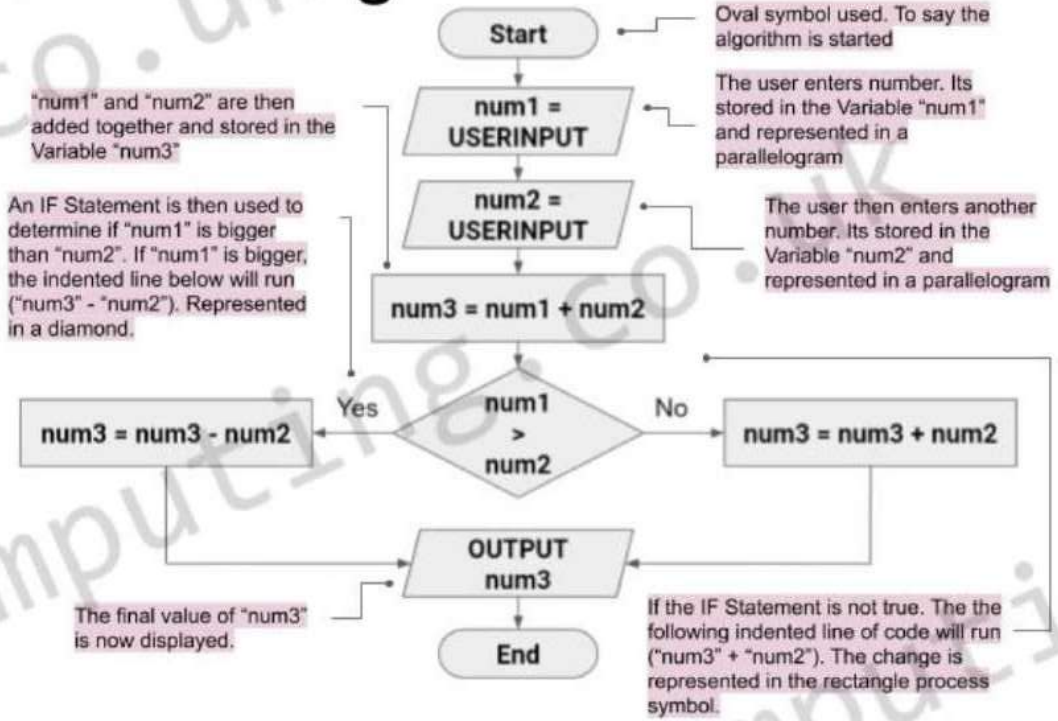
Pattern Recognition
Finding the similarities or patterns among small, decomposed problems

Pseudocode

Representing algorithms using a common language.

```
1.   Get name
2.   IF name = "Mr Ahmed":
3.       Display "You are cool"
4.   ELSE:
5.       Display "You are kind of cool"
```

Flowchart Example



Pseudocode Example

```
1.   num1 = USERINPUT
2.   num2 = USERINPUT
3.   num3 = num1 + num2
4.   IF num1 > num2 THEN
5.       num3 = num3 - num2
6.   ELSE:
7.       num3 = num3 + num2
8.   END IF
9.   Display num3
```

The user enters a number. Its stored in the Variable "num1"

The user then enters another number. Its stored in the Variable "num2"

"num1" and "num2" are then added together and stored in the Variable "num3"

An IF Statement is then used to determine if "num1" is bigger than "num2". If "num1" is bigger, the indented line below will run ("num3" - "num2")

If the IF Statement is not true. The the following indented line of code will run ("num3" + "num2")

The final value of "num3" is now displayed.

Year 789 - Data Representation

Number Bases

Denary
Base 10 Numbers - 23, 5

Binary
Base 2 Numbers - 01010101

128	64	32	16	8	4	2	1		
0	0	0	0	1	0	1	0	=	10
0	0	1	1	1	1	1	0	=	62
1	0	0	0	1	1	1	1	=	143
0	0	0	0	0	0	0	1	=	1
1	1	1	1	1	1	1	1	=	255

Binary Arithmetic

Rules of Addition
0 + 0 = 0
0 + 1 = 1
1 + 0 = 1
1 + 1 = 0 Carry 1
1 + 1 + 1 = 1 Carry 1

					1	1	1		
	0	0	0	0	1	1	1	0
+	1	0	1	0	0	0	1	0
	1	0	1	1	0	0	0	0

			1	1	1	1		
	1	1	0	1	0	0	1	1
+	0	0	0	0	1	1	1	0
	1	1	1	0	0	0	0	1

1			1	1	1			
	1	1	0	0	1	1	0	0
+	1	0	0	1	1	1	0	1
1	0	1	1	0	1	0	0	1

OVERFLOW ERROR
When and extra bit is created to represent a number

Storage Units

The more bits of Binary you use, the higher the file size.

÷8	↓	**Bit**		
÷1000	↓	**Byte**	↑	x8
÷1000	↓	**Kilobyte**	↑	x1000
÷1000	↓	**Megabyte**	↑	x1000
÷1000	↓	**Gigabyte**	↑	x1000
		Terabyte	↑	x1000

2Mb to Bits

2	x	1	0	0	0	=		
2	0	0	0					
2	0	0	0	x	1	0	0	0
2	0	0	0	0	0	0		
2	0	0	0	0	0	0	x	8
1	0	0	0	0	0	0	0	

2Mb = 10000000 Bits

ASCII and Unicode

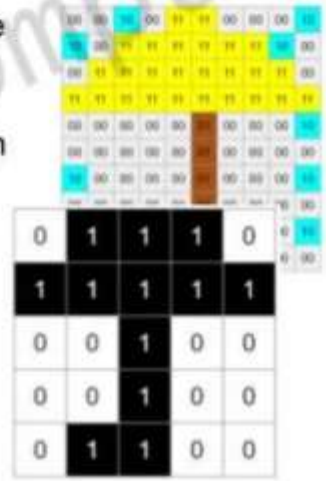
ASCII
7 bit ASCII used to represent 128 characters in binary. Only enough for English language.

Unicode
Created to extend binary values for other languages using 16 bit numbers. This allows for 65,536 characters to be encoded.

	A	S	C	I	I															
	C	=	67	=	0	1	0	0	0	0	1	1	=	8	bits		8	x	4	
	A	=	65	=	0	1	0	0	0	0	0	1	=	8	bits		=	32	bits	
	T	=	84	=	0	1	0	1	0	1	0	0	=	8	bits		32	/	8	
	!	=	33	=	0	0	1	0	0	0	0	1	=	8	bits		=	4	bytes	
	U	N	I	C	O	D	E													
	ơ	=	0	0	0	0	1	0	0	1	1	1	1	1	1	0	1	0	(2554)	
	裕	=	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	(4167)	

Representing Images

Pixel - Small dot on of colour on an image
Resolution - Amount of pixels on an image
Colour/Bit Depth - Amount of bits in each pixel (amounts of colours available)



Factors that affect the quality and file size:
Increasing resolution and colour depth means the quality will improve. It also means the file size will increase.

Working out file size:
File size (bits) = Resolution x Bit Depth

Questions and activities – hints and tips

Summarising a lesson:

Answer the following questions to help you summarise your learning in a lesson. This will help you recap and think again about your learning, and will be useful to look back on in the future.

- What key words did you use in the lesson?
- Can you define those key words and use them in a sentence?
- What new content did you cover?
- How does this link to your previous learning?
- Can you summarise your learning into one sentence?

Revision:

If you have an MCQ approaching, you could create some revision material based on your knowledge organiser.

Can you get down the key information in a spider diagram?

Can you use diagrams, pictures, symbols etc to recall your knowledge?

Knowledge quizzes:

Create a set of questions using the information from your knowledge organiser, or from your lesson.

You could make them about key words, and maybe even give multiple choice answers.

Go over the questions you keep getting wrong.

Try the questions out with those at home, or maybe your teacher could use them for their starter quiz in class.

Keyword Development:

Practise the spellings of key words. Use the look-cover-write-check method to help you.

Can you explain what the key words mean?

Can you link the key words together?

Copy out the key words with their definitions.

What might it look like?

Geography — Thursday 1st October

Topic: Our Place in the World

Lesson Summary:

Longitude - the distance, in degrees, E or W of the Prime Meridian.

Latitude - the distance, in degrees, N or S of the Equator.

Today we learnt about how the world is divided up using lines of latitude + longitude. The Equator is an 0° latitude, and the poles are 90° N +S.

This links to our previous learning because now I can say where the contents are using longitude + latitude to find them on a map.

Lesson summary:

Knowledge Quiz:

Science

Topic: Cells — Monday 28th September

Knowledge Quiz:

1.) What is the name of the part of the microscope where the specimen is placed?
A= Stage

2.) How many cells are there in a 'unicellular' organism?
A= one

3.) What does the 'cell membrane' do?
A= controls movement of substances in + out of the cell

4.) Where does photosynthesis take place in a cell?
A= Chloroplast

5.) What is the function of the red blood cells?
A= to carry oxygen

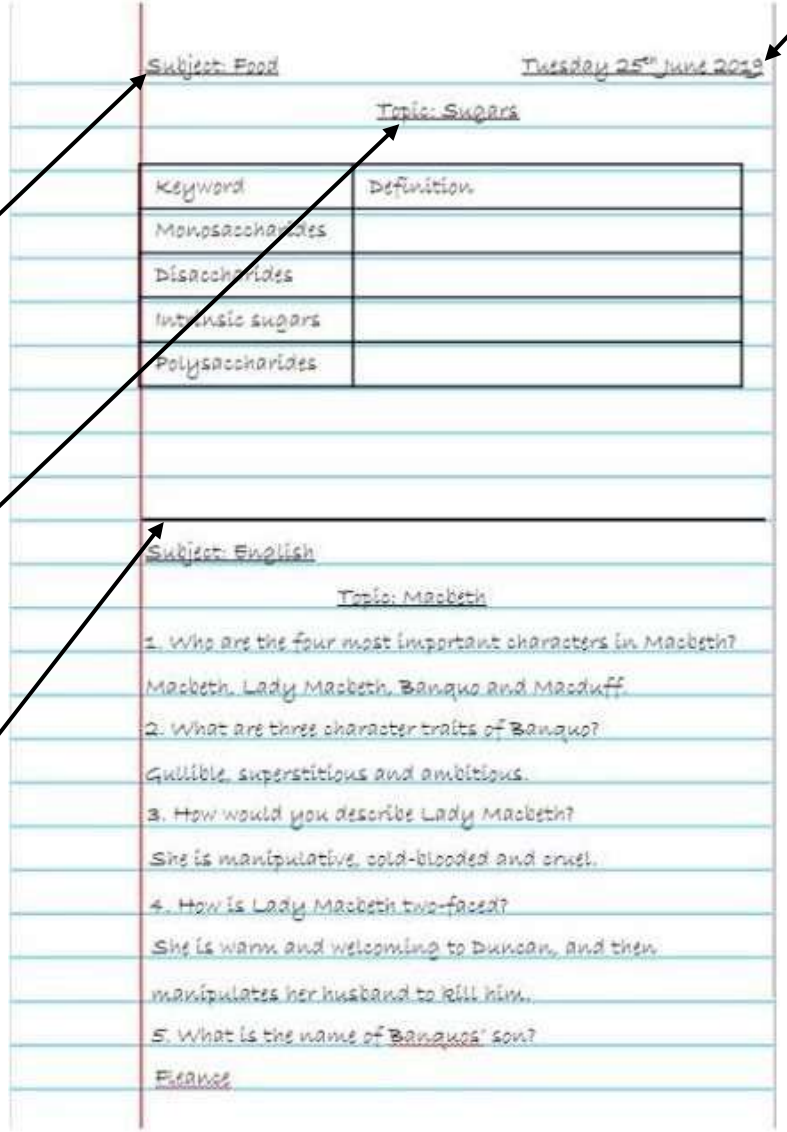
How to present your homework:

Date written fully on the right hand side of the page and underlined – this should be the day you complete the homework.

Subject written on the left-hand side of the page and underlined.
For example: Food

Topic written on the centre of the page and underlined.
For example: Sugars

One single straight line between both pieces of homework.



Subject: Food — Tuesday 25th June 2019

Topic: Sugars

Keyword	Definition
Monosaccharides	
Disaccharides	
Intrinsic sugars	
Polysaccharides	

Subject: English

Topic: Macbeth

1. Who are the four most important characters in Macbeth?

Macbeth, Lady Macbeth, Banquo and Macduff.

2. What are three character traits of Banquo?

Gullible, superstitious and ambitious.

3. How would you describe Lady Macbeth?

She is manipulative, cold-blooded and cruel.

4. How is Lady Macbeth two-faced?

She is warm and welcoming to Duncan, and then manipulates her husband to kill him.

5. What is the name of Banquos' son?

Fleance

Notes