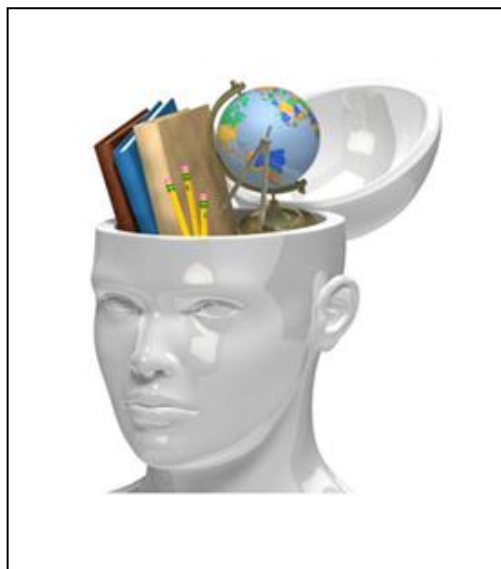


Name:

Form class:

Year 7

Knowledge Organiser Autumn Term



Instructions for using your Knowledge Organiser

Self-testing

You can use your knowledge organisers and exercise book in a number of different ways but you should not just copy from the Knowledge Organiser into your book.

Below are some possible tasks you could do in your workbooks

- Ask someone to write questions for you
- Write your own challenging questions and then leave it overnight to answer them the next day
- Create mindmaps
- Create flashcards
- Put the key words into new sentences
- Look, cover, write and check
- Mnemonics
- Draw a comic strip of a timeline
- Use the 'clock' template to divide the information into smaller sections. Then test yourself on different sections
- Give yourself spelling tests
- Definition tests
- Draw diagrams of processes
- Draw images and annotate/label them with extra information
- Do further research on the topic
- Create fact files
- Create flowcharts

Presentation

You should take pride in how you present your work; each page should be clearly labelled with underlined title and date. There should be an appropriate amount of work.

The Knowledge Organisers are designed to help you learn a wide range of knowledge which in turn will mean you are more prepared for your lessons as well as the new style GCSEs that you will sit in the future.

To get the most out of your Knowledge Organiser, you should be learning sections and then self testing in your workbook.

Do not just copy into your workbook

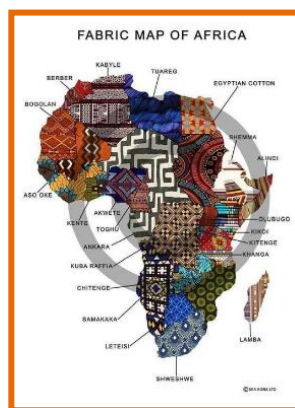
Always check and correct!

In this project you will learn to develop an idea using source material and use a range of clay techniques. You will also be researching Masks from a specific country and associating colours from a wide range of African cultures.



Just some African Countries

Algeria, Angola, Benin, Botswana, Cameroon, Congo,
Ethiopia, Egypt, Gambia, Gabon, Ghana, Kenya, Libya,
Nigeria, Madagascar, Malawi, Morocco, Mozambique,
Rwanda, Senegal, Sierra Leone, Seychelles, Somalia,
South Africa, Sudan, Tunisia, Uganda, Zimbabwe.



Relief clay process

- ✓ **Manipulation**
- ✓ **Slab**
- ✓ **Score/scar**
- ✓ **Buttering/slip**
- ✓ **Pinching**
- ✓ **Texturing**
- ✓ **Patterns**

Key Skills & Knowledge

By the end of the project you should have gained the skills and knowledge to be able to do the following:

1. Understand what is meant by **Manipulating** clay and **Relief**.
2. Can demonstrate how to **Manipulate** clay.
3. Successfully build/add and the joining clay pieces.
4. **Present** your work to a high standard.
5. Can demonstrate and apply the Manipulation of clay and **Health & Safety** whilst handling clay.
6. Know what earthly colours are popular in African cultures.
7. Can decorate with care and cover Mask with PVA glue once finished.
8. Have written in more than **20 words** on what, how and why you have done a African Clay Mask.

Knowledge Organiser—Year 7 – Computing – E-safety

Section A

- E-safety- Staying safe online. Making sure that people are protected from harm of using any electronic device for online purposes.
- Email- Is short for electronic mail. An email is sent from one computer to multiple computers through the use of email addresses.
- Malware- Short for Malicious Software. Malware can be various different programs which will try to do something unwanted to your computer.

Three Main Types of Malware:

- Virus- Like a normal common cold a virus spread from one computer to another through programs. It can work by slowing your computer down or in severe cases you could lose all your programs and documents.
- Trojan- A Trojan horse will actually pretend to be a useful and safe program but it actually will try and attack your device.
- Worms- Very similar to viruses as they do duplicate and spread. However, they can do this hundred and thousands of times and infect other computers in minutes through email attachments.
- Phishing- Trying to trick someone into handing over sensitive information through the use of emails.



Section B

- Mobile Phone Uses- Mobile phones used in today's world allow users to send and receive text messages, emails, photos and video as well as access the Internet, play games, listen to music and many more.

Advantages of Mobiles

- Communication
- Good in Emergencies
- Alarms, reminders and notes.

Disadvantages of Mobiles

- Cyberbullying
- Spending more time online than with family.
- Sleepless nights and tiredness.
- Talking to people who are not who they say they are.

Section C

- Cyberbullying- bullying someone through any use of technology.

Types of Cyberbullying:

- **Harassment:** Using text messaging, instant messaging and email to harass, threaten or embarrass the target.
- **Impersonating someone:** Developing a screen name that is similar to the victim's screen name and then posting rude or hurtful remarks while pretending to be the victim.
- **Creating Websites:** Spreading rumours, lies or gossip about the victim online through websites or blogs.

Ways to Prevent Cyberbullying:

- **Notice:** Recognize if there has been a change in mood or behavior and explore what the cause might be.
- **Talk:** Ask questions to learn what is happening, how it started, and who is involved.
- **Report:** Most social media platforms and schools have clear policies and reporting processes. If a classmate is cyberbullying, report it the school.
- **Support:** Peers, mentors, and trusted adults can sometimes intervene publicly to positively influence a situation where negative or hurtful content posts about a child.

You must be able to identify a wide range of hardware, software and peripherals required to create and view multimedia.

Hardware Requirements

Use and purpose

CPUs	Central Processing Unit (CPU) is an essential part in any computer. It is considered as the brain of computer, where processing and synchronization of all activities takes place. The efficiency of a computer is judged by the speed of the CPU in processing of data. For a multimedia computer the latest processor is preferred because of its higher efficiency.
Monitors	The text or graphics in a monitor is created as a result of an arrangement of tiny dots, called pixels. Resolution is the amount of details the monitor can reproduce. Resolution is defined in terms of horizontal and vertical pixels (picture elements) displayed on the screen.
Video Cards	Video cards convert the information from the CPU into images that can be displayed on the monitor. They have their own specialist high speed processors (Graphics Processor Unit or GPU) and have their own high speed
Sound Cards	Sound cards convert the digital representation of sound into an analogue signal that we can hear. The quality of sound reproduction is also depended on how fast and accurately the sound card converts digital to analogue.
Storage	Secondary storage, such as hard disk drives (HDD) and Solid State Disk Drives (SSD) are required to store the computer software and to save multimedia files. Peripheral storage is used to back up multimedia files, such as USB drives, CD-ROMs, DVDs or Blu-ray discs. More recent Blue-ray discs can store larger files.
Touchpads	Touchpads are commonly used for controlling photo editing by professionals. They are touch and pressure sensitive and are more accurate than mice.



Monitors are required to reproduce the multimedia. Photographic monitors are able to reproduce most of the colours accurately



High speed (clock speed) and multiple core CPUs will reduce the time taken to edit and produce multimedia products.



Video cards use high speed GPUs and fast memory to do the maths needed to create high resolution, high colour depth images in fractions of a second.



High quality sound cards are needed for professional audio recording and playback. They will have several inputs for instruments, microphones and outputs for monitors.



SSD drives are the latest technology for storing computer files and software. They use computer chips that are faster at reading and writing data than conventional HDDs which use magnetic spinning disks.



Touchpads are specialist input devices that are used predominantly for photo editing. They use a pen to select and mark-up edits. They are more flexible than mice and sense how hard the pen is pushed

- This list contains some examples. You should be able to use your notes to identify other items.
- Hardware, software and peripherals that are used to create multimedia are typically different to those which are used to view multimedia.

You must be able to identify a wide range of hardware, software and peripherals required to create and view multimedia.

Peripheral Devices

A peripheral device is something that can be added to a computer that has a specific purpose. Its purpose will be to add additional **functionality** or to aid a computer system with a specific task.

Peripheral devices are typically hardware systems that are considered to be **auxiliary** (provides help or support) to a system, for examples, a multimedia computer.

Peripheral devices can be input devices, output devices or a combination of output and input devices known as hybrid devices.



Multi function devices are examples of hybrid peripheral devices. They are not just printers because they also have scanners built into them. A scanner is used to create a digital image of a document or photograph which can be then edited in multimedia software. Many will be able to produce photographic quality prints.

A peripheral device is essentially any device that can be unplugged from a computer system, such as; mice, cameras, speakers, video cameras, microphones or keyboards. These provide a specific purpose, they are generally easy to upgrade as technology improves. For example, external hard drives are becoming faster and are increasing in storage capacity.

Examples of Audio Software



Audacity: Free audio editing software. Ideal for creating podcasts.



Adobe Audition: Professional Audio editing for studio broadcast quality music and voice.



Spotify: Streaming audio playback software.



iTunes: Audio file online purchase and playback software

Examples of Video Software



Blender: A free multiplatform video editing software for 3D animation and modelling.



Adobe Premiere Pro: Industry standard professional video editing used for broadcast quality programmes and movies.



Final Cut Pro: Apple Mac professional video editing software.



iMovie: Apples consumer video editing software that is available iPhone, iPad and Mac

Examples of Image Software



Adobe Photoshop: Leading software for editing and creation of bitmap images.



Adobe Lightroom: Leading software for developing digital photographs.



Capture One: Professional photographer image capture and editing of large digital photographs.



Adobe Illustrator: Leading software for editing and creation of vector images.

Key Terminology	Definition
Still Image	Being frozen during a performance to highlight a key moment.
Facial Expressions	Using your facial features to show emotion to the audience.
Blocking	Ensuring you are not covering your own face from the audience.
Posture	The alignment of your body/back to show emotion and status.

Assessment Question:

How can you apply a variety of performance skills and theatrical conventions to entertain a young audience.

The Six Golden Rules of a Still Image:

- Still
- Silent
- Facial Expressions
- Body Language
 - Levels
 - Focus

Jack and Jill

Jack and Jill went up the hill
To fetch a pail of water;
Jack fell down and broke his crown,
And Jill came tumbling after.

Up got Jack and home did he trot,
As fast as he could caper;
Went to bed and bound his head,
With vinegar and brown paper.

When Jill came in how she did grin
To see Jack's paper plaster;
Mother vexed, did whip her next;
For causing Jack's disaster.



How to Learn Lines



Reading Material



Versatile Vocabulary

Mortal/Immortal	Will die/Will live forever
Protagonist/Antagonist	Main character/Opponent or enemy
Stable/Unstable	Unlikely to change/Likely to change
Immoral/Moral	Bad behaviour/Good behaviour
Oppressed/Emancipated	Freedoms limited/Freed from restrictions
Uncivilised/civilised	Cruel or rude behaviour/Calm, polite, fair
Captivity	Imprisoned, trapped
Monstrous	Huge, powerful, ugly, frightening
Vengeance	Harming someone who harmed you
Duplicitous	Two faced, a liar
Deceive	Make someone believe a lie
Barbaric	Extremely cruel
Tyrant	A cruel and unfair ruler
Impotent	No power
Subversive	Destroy the authority of leader
Disobedient	ignore instruction
Misogyny	Hatred towards women
Innocent	Did not commit a crime
Wild	Not controlled
Naïve	Lack experience, expect things to be easy
Enchanted	Delighted by
Superficial	Do not think deeply
Avaricious	Greedy for money
Exploit	Treat you unfairly, give you little in return
Manipulate	Persuade you to do what they want
Cruel	Causes deliberate pain
Victim	Suffered due to someone's actions
Reconciliation	Two enemies become friends
Annihilation	Total destruction
Authentic	Deep and important

Context:

~ Ancient Greece was 2,500 years ago. They lived in Greece and other countries around the Mediterranean Sea. It was a time of great thinkers, warriors, writers, actors, athletes, architects and politicians.

~ The Greek Gods, myths and philosophies are still used in literature and films today.

The Primordial Deities

Chaos	Personified as female, the primal feature of the universe
Erebus	Son of Chaos, personified chaos and darkness
Nyx	Daughter of Chaos, personified night
Gaia	Daughter of Chaos, personified earth, Mother of Ouranus and Titans. Punished Ouranus for putting their 3 children in Tartarus by asking Chronus to castrate him.
Tartarus	Son of Chaos, personified hell. Where Gods imprisoned their enemies.

The Titans

Ouranus	Created by Gaia, personified the sky. Father of 1 st generation Titans. Imprisoned 3 youngest in Tartarus. Castrated by his son Chronus.
Chronus	Son of Gaia and Ouranos, god of the harvest. Threw body parts of his Father in the sea, from which Aphrodite was born. Ruled with his sister Rhea as King and Queen. Swallowed all his children to prevent losing power. Rhea hid son Zeus in Crete, who eventually overthrew him. Ticked into swallowing a stone and vomited back his own swallowed children
Rhea	Daughter of Gaia and Ouranos, goddess of female fertility. Sister and wife of Chronus, and the mother of 1 st generation of the Olympian gods (Hestia, Demeter, Hera, Hades, Poseidon, and Zeus). Known as the "Great Mother"
Prometheus	Champion of mankind. Sided with Zeus and the Olympians. Tricked Zeus into eating bones wrapped in fat, which became the original sacrifice to the Gods. Zeus stole fire from Mankind and Prometheus gave it back. Punished by Zeus. Chained to a rock for eternity where an Eagle would eat his liver every day after it regenerated.
Epimetheus	Brother of Prometheus & lacked intelligence. Received Pandora as a gift from the Gods.
Atlas	Sided against the Olympians in the war. Punished by Zeus to hold up the sky for all eternity on his shoulders.

The Olympians

Zeus	Vengeful King of the Gods. God of the sky and thunder. Overthrew Titans. Punished Prometheus. Athena born from his head. Had children with various wives.
Poseidon	God of the Seas. Violent and ill-tempered. Competed with Athena for Athens and lost.
Hera	Goddess of Marriage. Tricked by Zeus into marriage. Tried to rebel against him by having him tied up, but later turned her wrath on Zeus's lovers. Tricked Hercules to kill his own children.
Hade	God of the Underworld. Abducted Persephone (Demeter's daughter) because he fell in love with her.
Demeter	Goddess of the Harvest, the cycle of life. Mother of Persephone.
Persephone	Queen of the Underworld and fertility. Daughter of Demeter and Zeus. Abducted by Hades and imprisoned in the Underworld for 6 months of the year, creating the seasons.
Hephestus	Blacksmith God. Married to Aphrodite, who had an affair with Ares.
Artemis	Goddess of the hunt and the moon. She guarded her chastity through her whole life. Actaeon the hunter saw her bathing naked. She transformed him into a stag and set his hounds against him. She killed her only potential lover Orion for trying to remove her clothes.
Athena	Goddess of wisdom, war and crafts. Never swayed by love or passion. Competed with Poseidon to be patron of Athens. She planted an olive tree, which the King judged as superior. Competed with Arachne at weaving and turned her into a spider. She also became the main helper of heroes.
Aphrodite	Goddess of love and beauty. Created from Ouranus' body parts. Object of desire of all the other Gods. Zeus married her to Hephaestus. Had affairs with Ares, Poseidon and Hermes. Mortals fell in love with her.
Hermes	Messenger God. Capable of crossing boundary between living and dead. Ushered souls to the underworld.
Apollo	God of music, sun, poetry & truth.
Dionysus	God of wine, madness and theatre. Only
Nymphs	Beautiful creatures, most often young women, who had some of the powers of gods.

Heroes

Perseus	Son of Zeus and Danae. Slayed the Medusa, assisted by Athena. Acrisius locked Perseus and Danae in a chest and floated them to sea. A fisherman Dictys took them in and looked after them. Polydectes ruled the island and wanted to marry Danae, but wanted to get rid of Perseus. Polydectes asked Perseus to slay the Gorgon Medusa and bring back her head as a gift and he agreed. Perseus received a mirror-like shield for his journey, to avoid looking into the Gorgon's eyes, which turned men into stone.
Heracles	Cursed by Hera. Son of Zeus and Alcmena. Zeus disguised himself as Alcmena's husband to get her in bed. Brought by Athena to Hera (in spite of her hatred) and fed by her. Her milk gave him superhuman powers, but he suckled so strongly Hera pushed him away and her milk sprayed the sky, which created the stars. Killed his own children. Gained immortal glory by completing 12 labours. 1) Slay the Nemean Lion; 2) Slay the nine-headed Hydra; 3) Capture the Golden Hind of Artemis; 4) Capture the Erymanthian boar; 5) Clean the Augean stables in a day; 6) Capture the Cretan Bull; 9) Steal the Mares of Diomedes; 10) Obtain girl of Hippolyta; 11) Obtain the cattle of the monster Geryon; 12) Steal the apples of the Hesperides; 12) Capture and bring back Cerberus.
Achilles	The Greek hero of the Greek side in the Trojan war. He kills the Trojan hero Hector outside the gates of Troy. He is finally defeated and killed by an arrow to the heel, his one weakness. This is where we get the phrase Achilles heel.

In this project you will learn to use The practical activities which involve food preparation and cooking will give student an insight into the role of different types of **chefs**. For example, within the kitchen brigade, they are the **executive head chef, sous chef, chefs de partie, commis chef, butcher, vegetable chef, fry chef, cold food and pantry chef, grill chef, pastry chef, fish chef, roast chef and sauté chef**. Some of the job roles (e.g. executive chef and sous chef) are suited for the higher attainers in the subject and these student will be given leadership responsibilities. These skills required by chefs will be developed by students following recipes to make dishes using a variety of commodities. These activities will be supported by teacher demonstrations and video clips.

Weighing and measuring are skills needed by **food scientist** and **chefs** and are practised during the mise en place stage of cooking. This is facilitated by teacher demonstrations and students following recipes. The investigative work done on the impact of cooking methods on nutritional value also links to the job role of a **food scientists**.

By studying about nutrients and healthy eating using the Eat well guide as a framework, students are to the role of a **dietitian** and a **nutritionists**. These lessons will be delivered through home learning, group work activities, power points presentations and a visiting speaker.

Researching where our food comes from give students the opportunity to hone the skills of a **food writer, culinary librarian and food journalist**. This piece of work will be done through classwork (market place activity and home learning).

Food presentation skills are encouraged by adding a finishing technique to dishes made. This is within the remit of a **food stylist, food photographer, food artist** as well as a **molecular gastronomist**.

Students practise being a **health and safety officer** when conducting risk assessment of the food room before their practical tasks. Through role play, students will study the role of an **Environmental Health Officer**. Linked to these two careers, is the unit of work on health and safety and bacteria and food poisoning.

Conducting sensory analysis gives students insights into the job of a **food taster** and a **quality assurer**. This activity is conducted after practical activities in class as well as at home.

Careers in the hospitality industry include managers, administrators, front house staff as well as back house staff. These careers are studied at KS4 through power point presentations, trips, role plays, independent work and home learning activities.

Key Vocabulary

Equipment	Food Safety
Knife	Use by date
Table spoon	Best before date
Butter Knife	Frozen Food
Measuring Jug	Chilled Food
Chopping Board	High risk foods
Saucepan	Low risk foods
Mixing Bowl	Salmonella
Wooden Spoon	E Coli
Frying pan/Wok	Vitamins & Minerals
Food Mixer	Carbohydrates
Baking tray	Gluten in
Rolling Pin	Gluten

Key Skills & Knowledge

By the end of the project you should have gained the skills and knowledge to be able to do the following:
 Preparing for a practical including health and safety
 Weighing and measuring
 Eat well guide
 Assessing diet sheets
 Make recommendations for healthy eating
 Practical activities –making food dishes
 Sensory analysis

Influential Chefs Gordon Ramsey, Jamie Oliver



Classroom Language

1	il faut parler en français	you must speak in French	16	j'adore le français	I love French
2	il faut lever la main	you must raise your hand	17	c'est lundi	it's Monday
3	il faut écouter le prof	you must listen to the teacher	18	j'ai fini mes devoirs	I've finished my homework
4	il faut faire les devoirs	you must do your homework	19	je suis fatigué(e)	I'm tired
5	il ne faut pas parler en anglais	you must not speak in English	20	je suis malade	I'm ill
6	il ne faut pas arriver en retard	you must not arrive late	21	j'ai beaucoup de devoirs	I've got lots of homework
7	ça va?	how are you?	22	il fait beau	It's nice weather
8	ça va bien	I'm well	23	il fait mauvais	It's bad weather
9	ça va formidable	I'm great	24	est-ce que je peux...	can I...
10	ça va super	I'm super	25	m'asseoir	sit down
11	ça ne va pas	I'm not well	26	faire les points	do the points
12	ça va mal	I feel bad	27	partir	leave
13	ça va fatal	I'm awful	28	avoir un point	have a point
14	bof	OK	29	répondre à la question	reply to the question
15	parce que	because	30	parler en anglais	speak in English

Classroom Language

31	être volontaire	be a volunteer	46	j'ai envie de	I want
32	avoir un mouchoir	have a tissue	47	on va chanter	we are going to sing
33	ramasser les cahiers	collect the books	48	on va écouter	we are going to listen
34	changer	change	49	on va parler	we are going to speak
35	je suis	I am	50	j'ai gagné	I won
36	cool	cool	51	j'ai perdu	I lost
37	sympa	nice	52	je suis d'accord	I agree
38	timide	shy	53	je ne suis pas d'accord	I don't agree
39	intelligent(e)	clever	54	c'est correct	it's right
40	amusant(e)	funny	55	ce n'est pas correct	it's not right
41	sportif/ve	sporty	56		
42	travailleur/se	hardworking	57		
43	bavard(e)	chatty	58		
44	tranquille	calm	59		
45	fantastique	fantastic	60		

The United Kingdom

- The world is made up of **7 continents** (South America, North America, Europe, Africa, Asia, Oceania/Australasia, Antarctica and Antarctica).
- The **United Kingdom** is made up of four countries (**England, Wales, Scotland and Northern Ireland**). London is the capital city of the United Kingdom.
- The **UK** is located in the continent of **Europe**.
- Europe is the **3rd largest** continent in **population** but only **6/7** for **space**.

Each continent has different features:

- The continent with the biggest population and land mass is **Asia**.
- Asia's current population is **4.6bn**.
- The climate in Asia can range from **tundra to tropical**.
- In the north of Asia, the climate is mainly **tundra**.
- In the South of Asia in countries such as **India and Indonesia** the weather is mainly tropical.
- North America is **bigger in landmass and population** compared to South America.
- The UK is in Europe which has a mainly **deciduous** climate.

How and why might population size of continents change in the future?

- Climate change.** *Land is flooded, leaving less space for more people.*
Mass migration.
- Natural disasters.** *Areas are unsafe to live in, mass migration, overcrowding in other countries.*
- Natural increase.** *World population increases, less space for more people.*
- Diseases like Corona Virus.** *Some continents (LIC's/poor continents) suffer more.*
- Increased wealth.** *As some continents like Asia get wealthier they can build more cities.*

How to describe locations using physical and human features.

- Use compass points to state what the location is next to
- State the physical features in the area
- State the human features in the area.

Types of settlement:

Hamlet-one or two farms with large space in-between.

Village: small settlement, with a population of up to a few thousand people. They are usually surrounded by rural fields and forest.

Town: Urban settlements with populations of up to over 10,000 people.

City: large urban settlements made up of different neighbourhoods. If a city has a population of over 10 million, it is known as a Megacity. The UK has many cities – the largest is London.

Urban - A built up area (e.g. town or city)

Rural - A sparsely populated area (such as a village or hamlet)

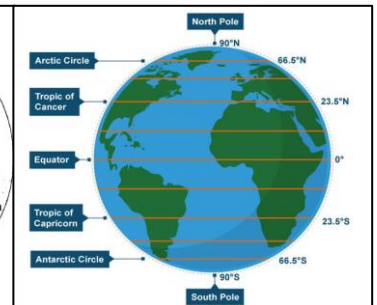
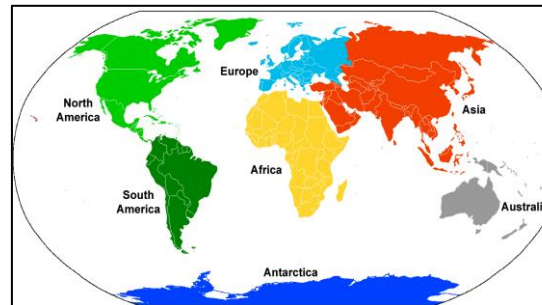
Human Geography of London.

- At **risk of flooding** due to **urban development** and **climate change**.
- Not enough houses to meet demand.
- Densely populated** resulting in **unemployment**.
- London is nearly a **megacity**-9.6m people.
- Lots of cultural events e.g. Notting Hill Carnival.



Physical Geography of London.

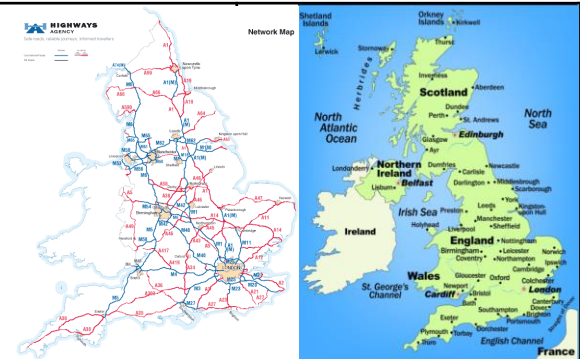
- Lowland area**
- Area is **easy to build on** as it is flat.
- UK's second longest river**, River Thames - 215miles long
- Easily flooded** due to being flat.
- Thames Barrier** has been built to prevent flooding.



Human Geography of the UK

Human features have been created by humans (*towns cities roads and railways*).

- London (city)
- Birmingham (city)
- M1
- M25



Physical Geography of the UK

Physical features are natural features of the land that have not been created by humans (*rivers, lakes, mountains and oceans*). Physical features are shown on a relief map. Relief is the geographical word that tells us the lay of the land (slope steepness, altitude (height above sea level)).

- Ben Nevis, Scarfell Pike, Showdown
- River Thames, River Trent



How does the physical and human landscape affect where people in the UK live?

Physical factors:

- Flat land is easier to build on/farm.
- The south has warmer drier climate, this is ideal for farming.

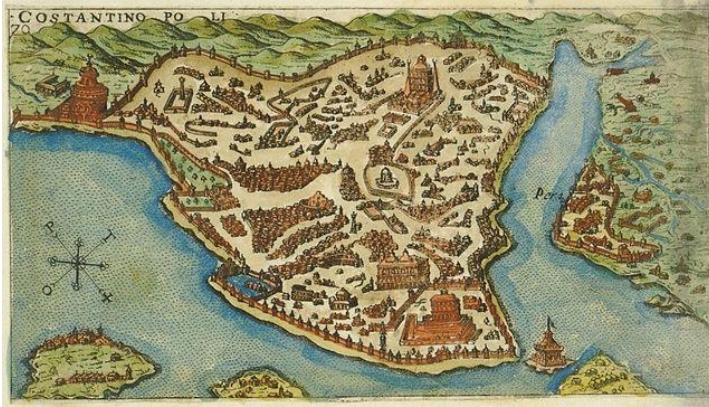
Human factors:

- In the South of England is the capital city London, this provides more job opportunities, social activities and entertainment.
- Best Universities in the UK are in the South, Cambridge and Oxford.

Better transport links, making it easier to travel and see people.

By 2040, 70% of the UK will live in urban areas. Do you think this is a good idea or do you think more people should live in rural areas?

- Isolation during pandemics like COVID vs. better access to technology and wi-fi-homeschooling during lockdown.
- Protecting areas for nature vs. overcrowding in cities and towns.



What was Constantinople in the 10th century?

- Cities in the year 1000 could be large and diverse. Constantinople was possibly the grandest of these cities
- Constantinople possessed many features of ancient Rome, including a hippodrome where games would be practiced
- Constantinople was a storehouse for ancient texts from Ancient Greeks. Works by thinkers like Euclid were translated here
 - Constantinople was a natural center of gravity between East and West
 - Christianity had become the dominant religion in Europe by 1000
- Constantine's acceptance of Christianity allowed the religion to physically manifest across Europe, through the building of churches
- Christianity in Constantinople had developed differently to Christianity in Latin Christendom. The most obvious point of difference was the presence of a Pope in Rome and a Patriarch in Constantinople
- The churches of Constantinople and the wider Byzantine Empire allowed for relics to be stored and the practice of Christianity to be formalized
 - Other powers had attempted to conquer Constantinople for hundreds of years
 - By the year 1000 Constantinople was no longer the powerhouse it had once been
 - Constantinople was threatened in both the East and the West

Year 7 History Term 1



Map A – A political map of Europe in the year 0 (2000 years ago). The red colour represents the Roman Empire. It was at this time that the Roman Empire was at its most powerful. As you can see, almost all of Europe was controlled by the Romans!



Map B – A political map of Europe in the year 400 (1600 years ago). The red colour represents the Roman Empire, but you can see that they are considerably less powerful than they had been 400 years earlier. Rome has also split into an Eastern half and a Western half. The Eastern half is coloured purple, and its capital is in Constantinople.



Map C – A political map of Europe in the year 600 (1400 years ago). The Roman Empire has collapsed and no longer exists. Meanwhile the Eastern Roman Empire is now called the Byzantine Empire and is incredibly powerful. Western Europe is made up of lots of different kingdoms known collectively as Latin Christendom.

Unit 1 – Numbers and Numerals

No.	Question	Answer
1.1	What is analogue display?	Like a clock face
1.2	What is digital display?	Using digits
1.3	How many digits do 24 hour clocks always have?	2
1.4	What does am mean?	Morning
1.5	What does pm mean?	Afternoon
1.6	With which clock do you use am and pm?	12 hour clock
1.7	How many seconds in a minute?	60
1.8	How many minutes in an hour?	60
1.9	How many hours in a day?	24
1.10	Write the following in order from biggest to smallest? Minutes, days, seconds, hours	Days, hours, minutes, seconds
1.11	What does > mean?	Greater than e.g. $3 > 2$
1.12	What does < mean?	Smaller than e.g. $2 < 3$
1.13	What does = mean?	Equal to
1.14	What is place value?	The value of where the digit is in the number
1.15	How do you write one?	1
1.16	How do you write ten?	10
1.17	How do you write one hundred?	100
1.18	How do you write one thousand?	1000
1.19	How do you write ten thousand?	10,000
1.20	How do you write one hundred thousand?	100,000
1.21	How do you write one million?	1,000,000

Unit 2 – Axioms and Arrays		
No.	Question	Answer
2.1	What is multiplication?	Equal groups, parts of measures
2.2	What is division?	Splitting into equal parts
2.3	What is commutativity?	The operation can be applied to two numbers in any order
2.4	What two operations are commutative?	Multiplication and addition
2.5	What is associativity?	Grouping numbers to make the calculation easier
2.6	What is distributivity?	Multiplying a number by a group of numbers added together
2.7	What is a conjecture?	An educated guess

Unit 3 – Factors and Multiples		
No.	Question	Answer
3.1	What is a factor?	A factor of a number divides that number exactly leaving no remainder
3.2	What is a prime number?	A prime number has 2 factors, itself and 1
3.3	What is an abundant number?	The sum of an abundant number's factors is larger than itself
3.4	What is a square number	A square number is the result of multiplying an integer by itself
3.5	What is a multiple?	Multiples of a number are found in the number's times-table
3.6	What is co-prime?	Two numbers are co-prime if they have no common factors others than 1
3.7	What is a counter example?	An example which contradicts the original statement
3.8	What are twin primes?	We call two numbers twin primes if they are prime numbers which have a difference of 2
3.9	Perfect number	A perfect number can be written as the sum as all of its factor

Unit 4 – Order of Operations		
No.	Question	Answer
4.1	Which operation has equal priority with addition?	Subtraction
4.2	Which operation has equal addition with multiplication?	Division
4.3	What do brackets mean?	Do this part first!
4.4	How do you find the area of a rectangle?	Base x perpendicular height
4.5	What does the vinculum mean?	Divide the numerator by the denominator
4.6	What is a variable?	A letter which represents an unknown number

MAD T-SHIRT – How every piece of music is constructed

MELODY

Register– high or low
Range – wide or narrow
Sequence
Ascending/descending
Scalic or broken chord
movement
Steps or leaps
Ornaments
Melodic ostinato/riff

ARTICULATION

Strummed
Finger-picking
Sustained
Stab
Staccato
Legato
Slurred
Pizzicato/arco
Accents

DYNAMICS

Pianissimo
Piano
Mezzopiano
Mezzoforte
Forte
Fortissimo

Crescendo
Diminuendo

TIME/TEMPO

Number of beats in a bar
Tempo
Accelerando/
rallentando

STRUCTURE

How many sections
What order
Which sections are the same
Ternary form: ABA
12-bar blues
Pop song structure:
intro/verse/chorus/bridge/
outro

HARMONY

Major or minor
Inversions
Consonant or dissonant
Key change
Added notes in chords
Harmonic rhythm
Drone/pedal note
'Blue' notes

INSTRUMENTS

Strings: violin/viola/cello/double
bass/harp
Woodwind:
flute/oboe/clarinet/bassoon/piccolo
Brass: trumpet/horn/
trombone/tuba
Percussion: timpani/snare/
cymbals (and many others)
Voices: soprano/alto/tenor/bass
Keyboards: piano/harpsichord/
organ/synthesiser
Rock/pop: electric/acoustic guitar/
bass guitar, drumkit, loops/samples

RHYTHM

Duration: long or short
notes
Even or uneven rhythms
Dotted rhythms
Triplets
Syncopation
On a particular beat of
the bar
Rests/pauses
Rhythmic ostinato/riff

TEXTURE

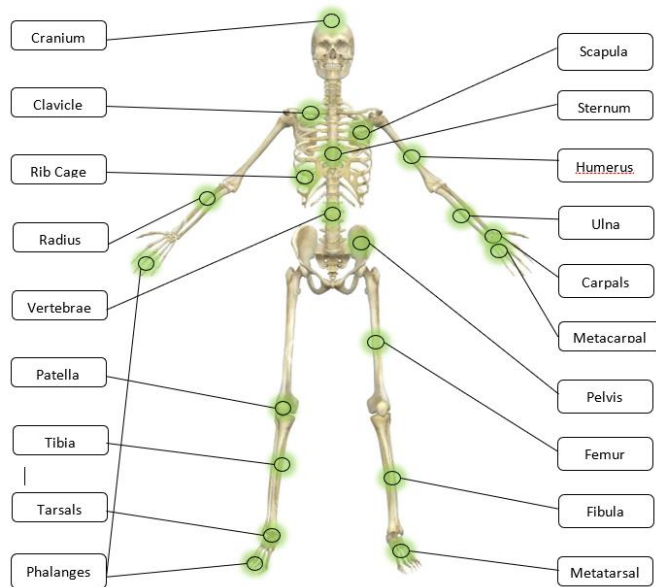
Note or chord
Bass/chords/melody
Thick/thin
Simple/complex
Melody + accompaniment
Counter melody
Parallel/contrary motion
Unison
Imitation
Call & response

1.1a – The Structure and Function of the Skeletal System

Component	% of overall GCSE (9-1) in Physical Education (J587)			
	AO1	AO2	AO3	AO4
1: Physical factors affecting performance	12.5	10	7.5	0
Assessment Objectives				
AO1	Demonstrate knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport.			
AO2	Apply knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport.			
AO3	Analyse and evaluate the factors that underpin performance and involvement in physical education and sport.			

1.1a – The Structure and Function of the Skeletal System

The Skeletal Structure



The Skeletal Functions

1. Support – the skeleton keeps the body upright and provides a framework for muscle and tissue attachment.
2. Posture – the skeleton gives the correct shape to our body.
3. Protection – the bones of the skeleton protect the internal organs and reduce the risk of injury on impact. For example, the cranium protects the brain, the ribs offer protection to the heart and lungs, the vertebrae protect the spinal cord and the pelvis offers protection to the sensitive reproductive organs.
4. Movement – the skeleton allows movement of the body as a whole and its individual parts. The bones form joints and act as levers, allowing muscles to pull on them to produce movement. The bones of the skeleton provide surfaces for the attachment of muscles.
5. Blood cell production – certain bones in the skeleton contain bone marrow which produces red blood cells, white blood cells and platelets. Examples of bones that contain marrow are the pelvis, sternum, humerus and femur.
6. Storage of minerals - the bones store minerals such as calcium, iron, potassium and phosphorous and release them into the blood when the body needs to use them.

1.1a – The Structure and Function of the Skeletal System

Synovial Joint Structure (Freely Moveable Joints)

Synovial joints (freely movable joints):

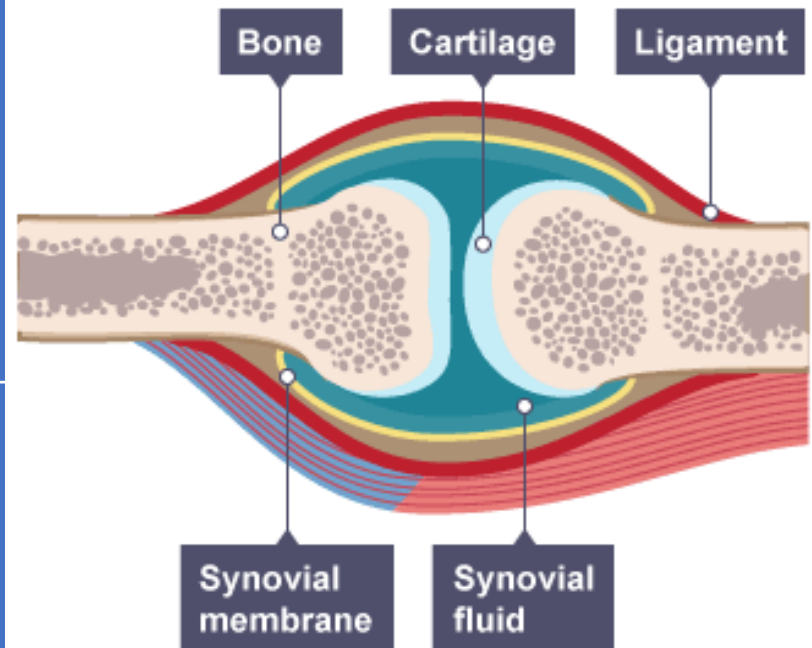
- Enable the free movement to perform skills and techniques during physical activity.
- Have synovial fluid in the joint cavity that lubricates or 'oils' the joint, so it moves smoothly. Synovial fluid is made by the synovial membrane.
- The ends of the bones are covered with cartilage which cushions the joint and prevents friction and wear and tear between the bone ends. Cartilage is a soft, spongy connective tissue.

Ligaments:

- Connect bone to bone to keep the joint together.
- A connective tissue and are tough, fibrous and slightly elastic.
- Stabilise the joints during movement and prevent dislocation by restricting actions outside the normal joint range.
- Absorb shock because of their elasticity, which protects the joint.
- Help maintain correct posture and movement.

Tendons:

- Connect muscle to bone.
- Are very strong, inelastic connective tissues.
- Allow movement at a synovial joint by attaching the muscles across the joint to pull a bone.

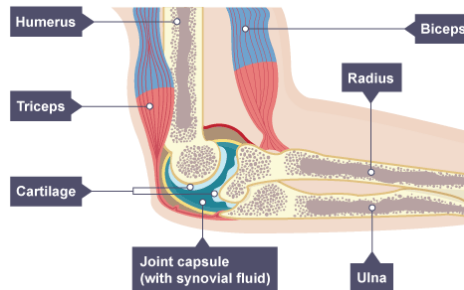


1.1a – The Structure and Function of the Skeletal System

Four Synovial Joint

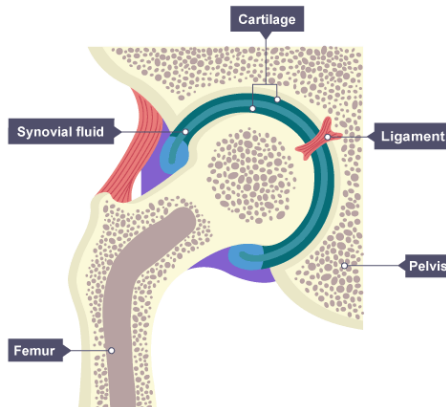
Elbow joint

- Hinge joint.
- Articulating bones are humerus, radius and ulna.
- Allows bending (flexion) and straightening (extension).
- Muscles which move the elbow are biceps and triceps.



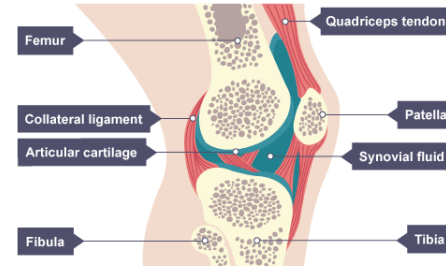
Hip joint

- Ball and socket joint
- Articulating bones are pelvis and femur (head of femur is 'ball' and cup in pelvis is 'socket')
- Allows a large range of movement in all directions
- Many muscles are used to move the hip joint, including the gluteals



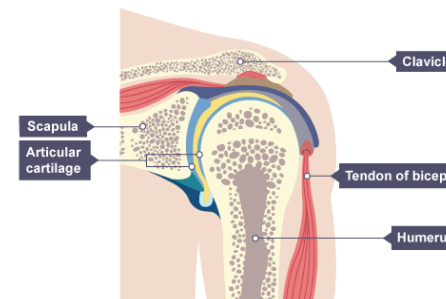
Knee joint

- Hinge joint.
- Articulating bones are femur and tibia (the patella is not classed as part of the joint, nor is the fibula).
- Allows bending (flexion) and straightening (extension).
- Muscles which move the knee are quadriceps and hamstrings.









Shoulder joint

- Ball and socket joint.
- Articulating bones are humerus and scapula (the clavicle is not part of the shoulder joint).
- Allows a great range of movement in all directions.
- Many muscles are used to move the shoulder joint, including the deltoid, trapezius and latissimus dorsi.



1.1a – The Structure and Function of the Skeletal System

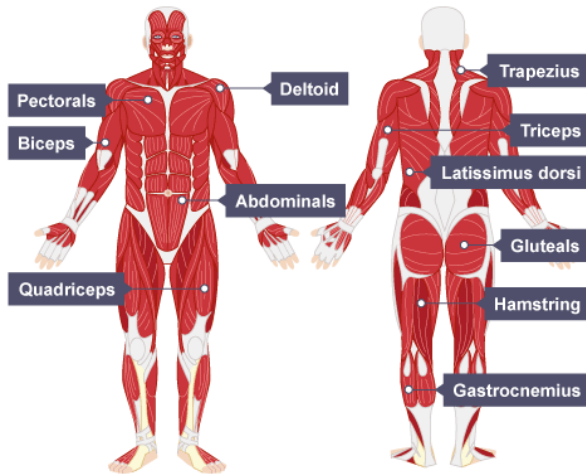
<u>Types of Joint Movement</u>	<u>Hinge Joint</u>	<u>Ball and Socket Joint</u>
<p>Flexion: The decrease in the angle around a joint.</p> <p>Extension: The increase in the angle around a joint.</p> <p>Abduction: The movement of a limb away from the midline of the body.</p> <p>Adduction: The movement of a limb towards the midline of the body.</p> <p>Rotation: The turning of a bone about its longitudinal axis within a joint. (Rotation towards the midline of the body is called medial rotation, while the rotation away from the midline of the body is called lateral rotation).</p> <p>Circumduction: The combination of flexion, extension, abduction, adduction and rotation – a circular movement of a limb at a joint.</p>	<p>Flexion: The elbow flexes when performing a biceps curl. The knee flexes in preparation for kicking a ball.</p>  <p>Extension: The elbow when throwing a shot put.</p> 	<p>Flexion: The hip joint occurs when the femur (upper leg) moves forwards, which happens when long jumpers land or at the end of kick in football.</p>  <p>Extension: The shoulder occurs when the humerus moves backwards from the rest of the body, which happens at the end of the pull stroke in front crawl.</p>  <p>Abduction: The hip and shoulder joints during a jumping jack movement.</p>  <p>Adduction: The hip and shoulder, returning the arms and legs back to their original position from a jumping jack movement.</p> <p>Circumduction: The shoulder joint during an overarm tennis serve.</p> <p>Rotation: The hip joint in golf while performing a drive shot.</p> 

1.1b – The Structure and Function of the Muscular System

Component	% of overall GCSE (9-1) in Physical Education (J587)			
	AO1	AO2	AO3	AO4
1: Physical factors affecting performance	12.5	10	7.5	0
Assessment Objectives				
AO1	Demonstrate knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport.			
AO2	Apply knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport.			
AO3	Analyse and evaluate the factors that underpin performance and involvement in physical education and sport.			

1.1b – The Structure and Function of the Muscular System

The Muscular Structure



Involuntary, Voluntary and Skeletal Muscles

Involuntary muscles are not under our conscious control which means we can't make them contract when we think about it.

Voluntary muscles are under our conscious control so we can move these muscles when we want to. These are the muscle we use to make all the movements needed in physical activity and sport.

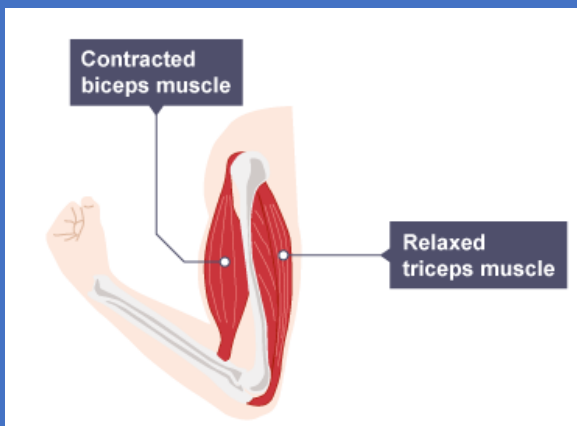
1. Smooth muscle: found in the internal organs and blood vessels (involuntary).
2. Cardiac muscle: found only in the heart (involuntary).
3. Skeletal muscle: attached to the skeleton (voluntary).

Muscle	Function	Example in Sport
Deltoid	Lifting the arm at the shoulder (the deltoid muscle has different parts which flex, extend and abduct the shoulder joint)	Lifting the arms to block in volleyball; upward arm swing when trampolining
Trapezius	Shoulder horizontal extension (moving the arms backwards at shoulder level)	Preparation phase of an overarm throw or badminton smash
Pectorals	Adduction of the shoulder (moving the arm towards the body); Shoulder horizontal flexion (moving the arms forwards in front of the body)	Upwards phase of a press up; rugby player making a tackle
Triceps	Extension of the elbow (straightening the arm)	Shooting and chest passing in netball (execution phase)
Biceps	Flexion of the elbow (bending the arm)	Drawing a bow in archery; 'backscratch' position during tennis serve
Abdominals	Flexion of the spine (sitting upwards)	Performing a sit up or a forward roll
Latissimus dorsi	Adduction of the shoulder (moving the arm down towards the mid-line of the body)	Hitting in hockey – left shoulder during preparation, right shoulder during execution and recovery
Gluteals	Hip extension (moving the femur backwards)	Pulling leg back at the hip before kicking a ball
Quadriceps	Extension of the knee (straightening the leg)	Kicking a ball (execution and recovery phase)
Hamstrings	Flexion of the knee (bending the leg)	Performing a hamstring curl on a weights machine; preparation phase of a rebound jump in basketball
Gastrocnemius	Plantar flexion of the ankle (pointing the toes downwards)	Standing on tiptoe to mark a shot in netball or pointing the toes during a gymnastic or dance move

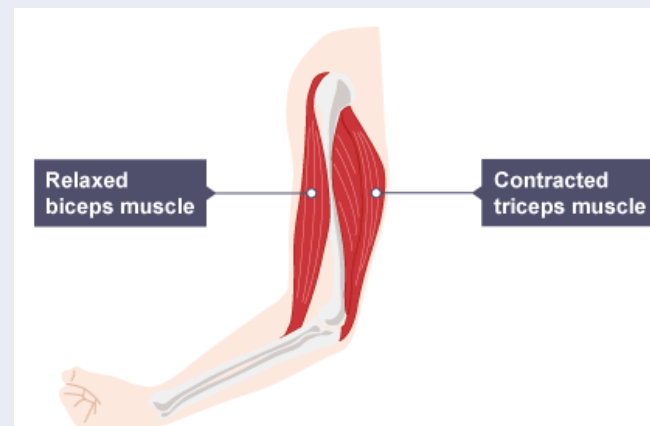
1.1b – The Structure and Function of the Muscular System

Antagonistic Muscle Pairs

Agonist: Contracting muscle that shortens and bulges, pulling on a bone to create movement.



Antagonist: Relaxing muscle that lengthens and thins, controlling the movement through resistance.



Joint	Antagonistic pair	Movements produced	Sport example	Fixator
Elbow	Biceps; triceps	Flexion; extension	Chest pass in netball; badminton smash	Deltoid; Trapezius
Knee	Hamstrings; quadriceps	Flexion; extension	Jumping to block in volleyball; tuck jump in trampolining	Gluteals; Abdominals
Shoulder	Latissimus dorsi; deltoid	Adduction; abduction	Golf swing; breaststroke arms	Trapezius; abdominals
Hip	Gluteals; Hip flexor	Extension; Flexion	Shot in football; Sprinting in athletics	Abdominals

1.1b – The Structure and Function of the Muscular System

Fixators: Support and stabilise

The trapezius muscle can act as a fixator when the biceps is flexing the elbow joint.

The abdominals can act as fixators to stabilise the body for hip and knee movements.

Exam Question: Describe how the antagonistic muscle pairs are working at the elbow during the downwards and upwards phase of a press up.

During the downwards phase, flexion occurs at the elbow. The biceps are the agonist, and they contract, and the triceps are the antagonist relaxing and lengthening to stabilise the movement by adding resistance so the body is lowered under control down towards the floor. During the upwards phase, the triceps are the agonist and contract, shortening and bulging to pull the ulna creating extension at the elbow. The biceps are the antagonist, relaxing and lengthening stabilising the movement

Antagonistic Muscles Pairs in Action



Preparation and execution and recovery phase in football

In the preparation phase, when a footballer prepares to kick a football, their hamstrings contract to flex the knee while the quadriceps lengthens to allow the movement. The hamstrings are the agonist and the quadriceps are the antagonist.

In the contact and recovery phase, the quadriceps contract to extend the knee while the hamstrings lengthen to allow the movement. The quadriceps are the agonist and the hamstrings are now the antagonist.

The abdominals would be acting as fixators.

Choose the appropriate piece of equipment in different scenarios

Give an example of an element and a compound and a mixture

Describe what is meant by each hazard symbol and give 2 ways we can stay safe in the science lab

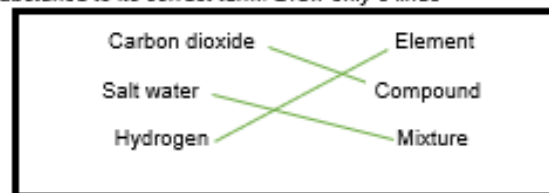
Define "Evaporation", "Condensation", "Melting" and "Boiling"

Choose which Bunsen flame to use in different situations and say why.

1) Which pieces of equipment would you use to melt ice in the science lab? You will need five different pieces of equipment.

1. Beaker
2. Bunsen burner
3. Heat proof mat
4. Gauze
5. Tripod

2) Match the substance to its correct term. Draw only 3 lines



3) What does this hazard symbol mean?

Toxic



4) Link the words to the correct definition

Particles lose energy and start to move slower. Bonds begin to form between particles.

Particles get more energy and move faster. All of the bonds between particles break.

Particles lose energy and stop moving (they just vibrate in a fixed position). Bonds form between the particles and particles align in a regular pattern.

Particles get more energy and move faster. Some of the bonds begin to break. The particles move out of their regular pattern.

Freezing






Melting

Evaporating

Condensing

5) A student chooses the roaring flame on a Bunsen burner to heat up a sample. Why has she chosen this flame?

The roaring flame provides more heat than the safety flame and so will heat up the sample faster.

	<p>Name different pieces of scientific equipment</p> <p>Name the different hazard symbols</p> <p>Give 2 properties of solids, liquids and gases</p>	<p>1) I can name and spell 10 different pieces of scientific equipment I might use in the lab.</p> <p>Any 10 of the following:</p> <ol style="list-style-type: none"> 1. Bunsen burner 2. Conical flask 3. Beaker 4. Measuring cylinder 5. Evaporating basin 6. Stopwatch 7. Tongs 8. Thermometer 9. Gauze 10. Tripod 11. Safety goggles 12. Spatula <p>2) Match the names of the hazards to their symbol. Draw only 4 lines.</p> <div style="display: flex; align-items: center;"> <div style="display: flex; flex-direction: column; gap: 10px;">     </div> <div style="margin-left: 20px;"> <p>Oxidising</p> <p>Harmful</p> <p>Irritant</p> <p>Flammable</p> </div> </div> <p>3) Is a brick a solid, liquid or gas? Give two pieces of evidence to support your answer!</p> <p>A brick is a solid. I know this because it has a fixed shape, it cannot be compressed/ cannot flow.</p>
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Year 7 Science: Particles

<p>70%</p>	<p>Explain why you would choose to use a piece of equipment linking to scale, accuracy and precision</p> <p>Explain how the particles in a substance change as it changes between the three states e.g. as it turns from solid to liquid and then liquid to gas</p> <p>Describe what is found within the nucleus of an atom</p> <p>Use correct symbols for 15 most commonly used elements</p> <p>Link particle arrangement to properties of solids, liquids and gases</p>	<p>1) Would you use a beaker or a measuring cylinder to measure 55ml of milk? Explain your answer. You would use a measuring cylinder because it is more precise</p> <p>2) Describe the changes that happen to the particles in an ice cube as it melts. The particles start off vibrating on a fixed spot and they are not free to move. As the ice cube melts the particles get more energy and begin to move faster. The bonds between the particles begin to break and they move out of their regular pattern and slowly roll past each other. The ice cube has now melted into a liquid.</p> <p>3) What is found within the nucleus of an atom of Hydrogen H? The nucleus of a hydrogen atom contains one proton, which is a positively charged subatomic particle and one neutron, which is a subatomic particle that has no charge (neutral).</p> <p>4) Write the symbols for Lithium, Sodium, Magnesium, Potassium, Calcium, Iron, Cobalt, Nickel, Copper, Helium, Carbon, Hydrogen, Nitrogen, Oxygen and Chlorine Lithium= Li, sodium= Na, magnesium= Mg, potassium= K, calcium= Ca, iron= Fe, cobalt= Co, Nickel= Ni, Copper= Cu, Helium= He, Carbon= C, Hydrogen= H, Nitrogen= N, Oxygen= O, chlorine= Cl</p> <p>5) Mr Holmes says a solid can be compressed. Is he correct? Explain your answer in terms of particles. He is not correct. A solid cannot be compressed because there are no gaps between the particles as they are tightly packed together in a fixed position.</p>
<p>60%</p>	<p>Draw a model to show the particles in a solid, liquid and gas</p> <p>Describe the difference between an element, compound and mixture</p> <p>Describe the arrangement, movement and bonding of particles in a solid, liquid and gas</p> <p>Describe 3 risks in a science lab and 3 things we can do to prevent these from causing us harm</p> <p>Link the properties of metals and non-metals to their use</p>	<p>1) Add particles to these diagrams to represent the 3 states.</p> <div data-bbox="942 719 1251 839"> <p>Solid Liquid Gas</p> </div> <p>2) Which is an element, compound and which is a mixture? A = Element B = Compound C = Mixture</p> <div data-bbox="1495 719 1599 976"> <p>A B C</p> </div> <p>3) I know that: In a solid the particles are arranged in a regular pattern. They vibrate around a fixed position. They are strongly bonded together. In a liquid the particles are arranged in an irregular pattern. They are still touching, but they are free to roll slowly past each other. They are weakly bonded. In a gas the particles are arranged randomly. They are far apart and are not bonded.</p> <p>4) You are using a Bunsen burner to boil some water. You then add some copper sulphate to it. The copper sulphate has this symbol on it.</p> <div data-bbox="1503 1125 1607 1225"> </div> <p>Name a risk during this experiment and three ways you can prevent causing harm in the science lab. The solution is corrosive Three precautions: 1. Wear gloves 2. Wear eye protection 3. Wash skin immediately if a spill occurs</p>



Use mass and atomic numbers to calculate the number of electrons, protons, and neutrons in an atom

Infer from a drawing of an atom, which kind of element it is

1) Define mass number and atomic number:

Mass number= The sum of protons and neutrons in the nucleus of an atom

Atomic number= The number of protons in an atom

2) Calculate the following 3 things for each of the elements (Lithium, Nitrogen, and Potassium).

Lithium:

Number of electrons = 3

Number of protons = 3

Number of neutrons = 4

Nitrogen:

Number of electrons= 7

Number of protons= 7

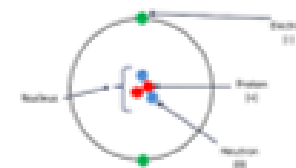
Number of neutrons= 7

Potassium:

Number of electrons= 19

Number of protons= 19

Number of neutrons= 20



3) Which element is this? Justify your answer.

Helium- this is because it has 2 protons and 2 electrons and the atomic number of helium is 2. In addition to this, the total number of protons and neutrons in the nucleus is 4 and the mass number of helium is 4.

Autumn 2 - Types of Reaction

40%

I can define these key words: soluble, insoluble, solvent, solute, solution

Describe how to use universal indicator and the results that you may expect to get.

Define neutralisation.

Define key words to do with solubility

Identify the equipment needed for each separation technique.

1) Label the pH scale with acid alkali and neutral

2) When an acid is added to an alkali, we call this Neutralisation

3) Link the key words to their meanings

Solute	The liquid that does the dissolving
Solvent	The soluble solid
Soluble	A special type of mixture made when a solid dissolves and mixes with a liquid
Insoluble	A solid that <u>can</u> dissolve
Solution	A solid that <u>cannot</u> dissolve

4) Choose from the equipment list below the relevant equipment needed to do each of the separation techniques.

a. Filtration Filter paper, funnel conical flask

b. Distillation Bunsen burner, round bottomed flask condensing tube thermometer

c. Chromatography Beaker Filter paper

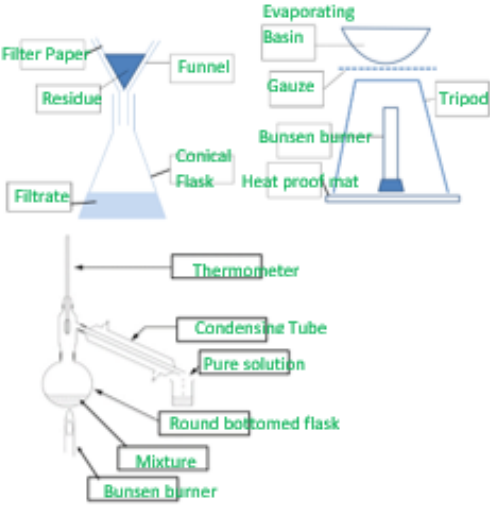
d. Evaporation Heat proof mat, evaporating basin, Tripod, Bunsen burner, Gauze, Tongs

Heat proof mat	Tripod	Bunsen burner	Gauze	Conical flask
Evaporating basin	Condensing tube	Beaker	Filter paper	Funnel
Round bottom flask	thermometer	Balloon	Tongs	Spatula


Autumn 2 - Types of Reaction

50%	<p>Identify soluble and insoluble substance.</p> <p>Explain how the pH scale can be used to determine if a liquid is an acid or a base.</p> <p>Explain how litmus paper can be used to test for acids and bases.</p> <p>Describe how neutralisation is achieved</p> <p>Decide which separation method is the best to use in different scenarios.</p> <p>I can define control, dependent and independent variables.</p>	<p>1) Sophie stirs 2 teaspoons of coffee into a cup of boiling water. What is the solute, the solvent and the solution? Solute – Coffee, Solvent – Boiling water, Solution – Cup of coffee</p> <p>2) Define the following variables: Control: the variables you keep to same Dependent: the variable you measure Independent: the variable you change</p> <p>3) You test the pH of three liquids, state whether they are an acid, a base, or a neutral liquid.</p> <p>a) pH=2 acid b) pH=8 base (alkali) c) pH=7 neutral d) pH=10 base (alkali)</p> <p>4) When blue litmus paper is added to an acid it turns red. When red litmus paper is added to an alkali it turns blue.</p> <p>5) Mr Harris is trying to neutralise an acid. Write him a note describing how he could do it and what he might have to use. 1) Add universal indicator to your acid. 2) using a pipette slowly drop an alkali into your acid 3) stop when the universal indicator turns green</p> <p>6) Write the preferred separation method next to the substance.</p> <table><tr><td>Distillation</td><td>Two liquids with different boiling points</td></tr><tr><td>Filtration</td><td>An insoluble solid from a liquid</td></tr><tr><td>Evaporation</td><td>A soluble solid from a liquid</td></tr><tr><td>Chromatography</td><td>Two or more liquids with different colours</td></tr></table>	Distillation	Two liquids with different boiling points	Filtration	An insoluble solid from a liquid	Evaporation	A soluble solid from a liquid	Chromatography	Two or more liquids with different colours
Distillation	Two liquids with different boiling points									
Filtration	An insoluble solid from a liquid									
Evaporation	A soluble solid from a liquid									
Chromatography	Two or more liquids with different colours									

Autumn 2 - Types of Reaction

70%	<p>Write a word equation for neutralisation</p> <p>Explain how a condensing tube makes distillation more effective</p> <p>Describe the effect of heat on solubility</p>	<ol style="list-style-type: none"> Write a word equation for the neutralisation of hydrochloric acid with sodium hydroxide. Hydrochloric Acid + Sodium hydroxide → Sodium chloride + Water Explain in terms of particles and temperature what a condensing tube does to the gas passing through it. When a gas passed through a condensing tube the particles are spread out as they have a lot of energy. As they cool down the particles move closer together forming a liquid. Describe the effect of heat on the rate at which something dissolves. Increasing the energy that each particle has, causing the particles in the solution to move faster and spread out quicker.
60%	<p>Name factors that affect the rate of solubility</p> <p>Name acids and alkalis from their formulae</p> <p>Write a method for neutralisation.</p> <p>Explain how filtration, evaporation and distillation work using the correct key terms</p>	<ol style="list-style-type: none"> Name two ways to increase the rate of dissolving. Stir more or add more heat (increase the temperature) Give the names for the following acids and bases from their formulae a. HCl Hydrochloric Acid b. H₂SO₄ Sulphuric Acid c. NaOH Sodium Hydroxide I want to investigate how temperature affects the rate of salt dissolving. Identify the control, dependent and independent variable. Independent change the temperature, Dependant rate of dissolving Control Volume of solvent and mass of solute Mr Truman has got stomach acid and it is causing him a lot of pain. Explain to him what he could do to make himself feel better making reference to acids and alkalis. He could take an antacid tablet, these contain an alkali which would neutralise his stomach acid and stop the pain Label these diagrams with the equipment needed and explain how each separation technique works using the following key terms. Solute, residue, filtrate, solvent, solution, mixture, evaporation, condensation, filtration, insoluble, soluble <div data-bbox="647 878 1139 1378">  <p>Filtration: Filter Paper, Funnel, Residue, Filtrate, Conical Flask.</p> <p>Evaporation: Evaporating Basin, Gauze, Tripod, Bunsen burner, Heat proof mat.</p> <p>Distillation: Thermometer, Condensing Tube, Pure solution, Round bottomed flask, Mixture, Bunsen burner.</p> </div> <div data-bbox="1217 821 1516 1249" style="border: 1px solid black; padding: 5px;"> <p>Filtration – Used to separate an insoluble solid from a solvent</p> <p>Evaporation – Used to separate a soluble solid from a solvent. The solvent is heated until it evaporates leaving the soluble solid residue</p> <p>Distillation – Used to separate two liquids. The liquid with the lowest boiling point will evaporate first, the vapour will travel down the condensing tube where it will cool and condense, the pure liquid will collect in the beaker</p> </div>

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80%+	<p>Link neutralisation to concentration of contributing acids and alkalis.</p> <p>Use knowledge of solubility to separate salt from muddy sea water</p> <p>Analyse the colours in an unknown sample from a chromatograph.</p> <p>Write a symbol equation for neutralisation.</p>	<ol style="list-style-type: none"> 1) Define concentration and explain why it is important to know the concentration of an acid when trying to neutralise an alkali. Concentration is the number of particles of a solute dissolved in a solvent, the more concentrated the solution the more acid particles that are <u>present</u> 2) Write a method for how we could get pure salt left over from a mixture of mud and sea water. Mud is insoluble and salt is soluble. To separate the insoluble <u>mud</u> you would first filter the muddy salty water. Once you have done this you need to evaporate the water to leave you with the soluble salt 3) Decide who committed the murder based on the chromatograph. Justify answer. John committed the murder because the <u>Rf</u> values of the three solutes in match the <u>Rf</u> values of the solutes in the murderers <u>ink</u> 4) Write a symbol equation for the neutralisation of hydrochloric acid and sodium hydroxide. $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$ <div style="text-align: right;">  <p>your his ink</p> </div>
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Spanish

1	¿Puedo...?	Can I...?	16	ser voluntario/a	be volunteer
2	se debe / hay que	you must	17	elegir	choose
3	levantar la mano	raise your hand	18	recoger los cuadernos	to collect the books
4	distribuir los diccionarios	hand out the dictionaries	19	¿Cómo estás?	how are you?
5	quitar la chaqueta	take off your jacket	20	fabuloso	fabulous
6	Responder	reply	21	bien	good
7	escribir	write	22	es lunes	it's Monday
8	marcar los puntos	do the points	23	estoy contento	I'm happy
9	prestar un bolígrafo	borrow a pen	24	fatal	awful
10	abrir la ventana	open the window	25	fenomenal	great
11	hablar en español	speak in Spanish	26	me encanta el español	I love Spanish
12	escuchar	listen	27	una mesa	a table
13	no se debe / no hay que	you mustn't	28	un chico	a boy
14	gritar	scream	29	un profesor	a teacher
15	hablar en inglés	speak in English	30	una pizarra	a screen

Spanish					
31	una profesora	a teacher (f)	46	odio	I hate
32	una chica	a girl	14	porque	because
33	manos	hands	48	bastante	quite
34	guay	fun	49	un poco	a bit
35	inteligente	clever	50	muy	very
36	divertido	funny			
37	tímido	shy			
38	hablador/a	chatty			
39	simpático/a	nice			
40	deportivo/a	sporty			
41	trabajado/a	hard-working			
42	compañeros	friends			
43	me gusta	I like			
44	no me gusta	I don't like			
45	me encanta	I love			