NOTTINGHAM
FREE SCHOOL

YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER

Autumn Term 1

Name: _____ Tutor Set: _____

"The best advice I ever got was that knowledge is power and to keep reading"

David Bailey
English Fashion and Portrait Photographer

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Autumn Term 1 Timetable

The timetable below shows you which subjects you will be studying each day, for 30 minutes each, it does not show you which section of the subject KO to learn. This information will be given to you by your subject teacher and you should write this into your **planner.** The planner is also where you will have your KO work signed off each week.

Week 1: 2rd September

	Subject 1	Subject 2
Monday	English	Phil & Ethics
Tuesday	Science	Geography
Wednesday	Maths	Computer Sci
Thursday	Science	History
Friday	Spanish	DT

Week 2: 9th September

	Subject 1	Subject 2
Monday	English	Art
Tuesday	Science	Geography
Wednesday	Maths	Music
Thursday	Head of School	History
Friday	Spanish	PE

Week 3: 16rd September

	Subject 1	Subject 2
Monday	English	Phil & Ethics
Tuesday	Science	Geography
Wednesday	Maths	Computer Sci
Thursday	Science	History
Friday	Spanish	DT

Week 4: 23th September

	Subject 1	Subject 2
Monday	English	Art
Tuesday	Science	Geography
Wednesday	Maths	Music
Thursday	Drama	History
Friday	Spanish	Head of School

Week 5: 30th September

	Subject 1	Subject 2
Monday	English	Phil & Ethics
Tuesday	Science	Geography
Wednesday	Maths	Computer Sci
Thursday	Science	History
Friday	Spanish	DT

Week 6: 7th October

	Subject 1	Subject 2
Monday	English	Art
Tuesday	Science	Geography
Wednesday	Maths	Music
Thursday	Drama	History
Friday	Spanish	PE

Week 7: 14th October

	Subject 1	Subject 2
Monday	English	Phil & Ethics
Tuesday	Science	Geography
Wednesday	Maths	Computer Sci
Thursday	Science	History
Friday	Spanish	DT

Week 8: 21nd October

	Subject 1	Subject 2
Monday	English	Art
Tuesday	Science	Geography
Wednesday	Maths	Head of School
Thursday	Drama	History
Friday	Spanish	PE

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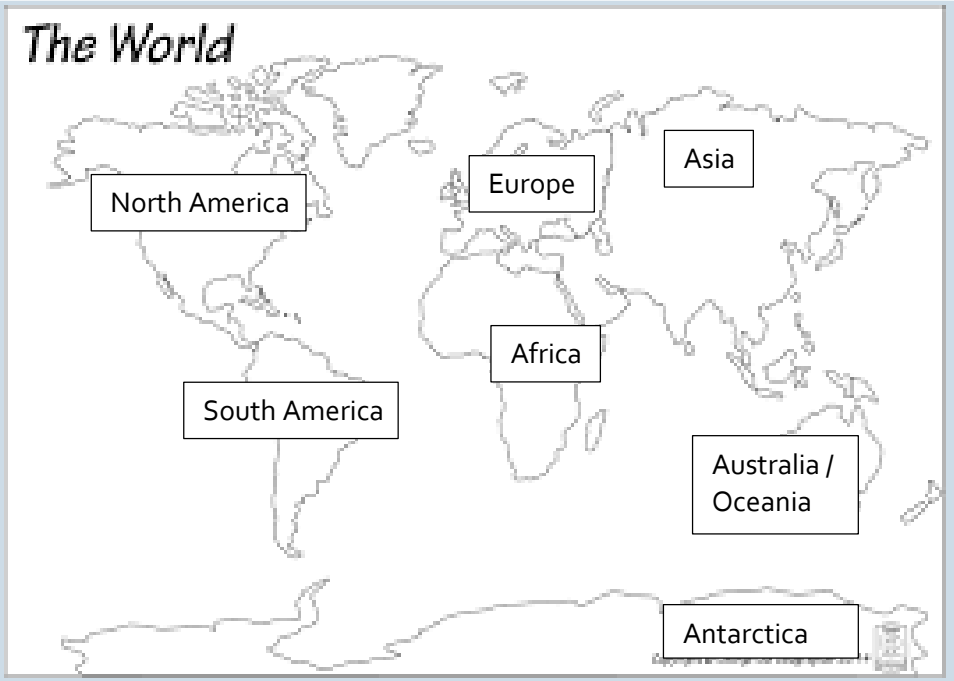
HEAD OF SCHOOL'S PAGE

General Knowledge

A: Our World – 7 Continents of the World



B: The UK – Countries and Capital Cities

Scotland
Capital city: Edinburgh

Wales
Capital city: Cardiff

Northern Ireland
Capital city: Belfast

England
Capital City: London

Union Jack Flag

Great Britain = England, Scotland, Wales
United Kingdom = England, Scotland, Wales and Northern Ireland

C: Local facts - Nottingham

- 9th biggest city in the UK
- Population: 325 510 (July 2018)
- River Trent = 298 km long (3rd longest river in the UK)
- Two universities: University of Nottingham and Nottingham Trent have a combined total of approximately 40 500 students
- Biggest employers are: County and City councils, Boots, Pendragon, Wilko Retail, Capital One, Experian

D: Academic Vocabulary: words to help you learn

Word	Definition
Analysis	detailed examination of the elements or structure of something
Concept	an abstract idea; a plan or intention
Consistent	acting or done in the same way over time, especially so as to be fair or accurate
Context	the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood
Identified	establish or indicate who or what (someone or something) is
Interpretation	the action of explaining the meaning of something
Procedure	an established or official way of doing something
Process	a series of actions or steps taken in order to achieve a particular end
Significant	sufficiently great or important to be worthy of attention; noteworthy
Specific	clearly defined or identified

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ENGLISH

Novel: My Sister Lives on the Mantelpiece

A: Key Terms (Learn the spellings and definitions)

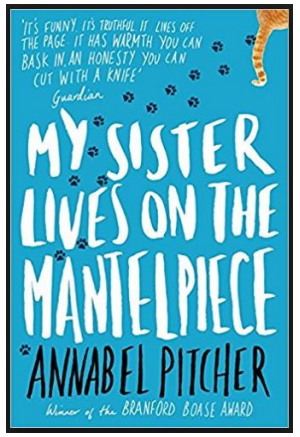
Antagonist: the main character in a work of fiction who comes into conflict with the protagonist (hero or heroine). Note that the antagonist does not always have to be a character; it could be a thing or a situation (a monster, a storm, a flood, etc.).
Climax: the moment of greatest intensity in a work of fiction; the most exciting and important part of a story, usually occurring at or near the end. The climax is the turning point in the action.
Conflict: a struggle, disagreement, or difference between opposing forces in a literary work, usually resolved by the end of the work.
Exposition: this also refers to the first stage of a plot, in which necessary background information is provided.
Foreshadowing: to give a suggestion of something that will happen in the story.
Imagery: the images collected and used in a written work to add to the ambiance; language used a writer that causes readers to imagine pictures in their minds, which gives them a mental image of the people, places, and things in a story.
Protagonist: the principal or main character in a literary work.
Rising Action: the set of conflicts in a story that lead up to the climax.

B: Context

- London bombings of 2005, also called 7 July attacks or 7/7 attacks,
- They were coordinated suicide bomb attacks on the London transit system on the morning of July 7, 2005.
- At 8:50 AM explosions tore through three trains on the London Underground, killing 39.
- An hour later 13 people were killed when a bomb detonated on the upper deck of a bus in Tavistock Square.
- More than 700 people were injured in the four attacks.

C: Spellings

1. Friendship
2. Alcoholic
3. Abandoned
4. Separation
5. Stereotype
6. Racism
7. Isolation
8. Grieving
9. Relationship
10. Presentation



D: Key Quotes

1. "My sister Rose lives on the mantelpiece. Well, some of her does. A collarbone, two ribs, a bit of skull, and a little toe."
2. "Sometimes when I wake up, I forget that she's gone and then I remember and my heart drops like it does when you miss a step or trip over a kerb."
3. "In fact she was quite bad and according to Jas she was naughty at school, but no one seems to remember that now she is all dead and perfect."
4. "I swallowed all the doubt and all the disappointment and all the anger and they were almost too big, like vitamin pills that are difficult to get down even with water."
5. "If envy is red and doubt is black then happiness is brown. I looked from the little brown stone to the tiny brown freckle to her huge brown eyes."

E: Summary of Characters and Plot

- Ten-year-old Jamie Mathews
- His sister, Jas, who is 15
- His father, an alcoholic
- They move to the country from London after Jamie's mother has an affair and leaves.
- Sitting on the Mantelpiece in their new home is the ashes of Rose, Jas's twin sister, who was killed on September 9 in the London Bombings, five years earlier.
- Jas has been deeply troubled by the death of her sister, yet it doesn't bother Jamie since he was too young to really know Rose.
- At his new school, Jamie befriends Sunya, who is a Muslim.
- Jamie knows his father wouldn't approve of their friendship, as he hates Muslims and blames Rose's death on the entire Muslim population.
- This novel is narrated by Jamie and expresses his deep feelings.

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ENGLISH

Writing: Narrative and Descriptive

A: Sentence starts

(make sure you finish the sentence)
Verb – Running quickly, she .....
Adverb – Darkly, the night sky....
Adjective – Red light filled the ...
Preposition – Down there, all...
Connective – However, his life...

B: Language devices/Spellings

Simile
Metaphor
Personification
Onomatopoeia
Alliteration
Imagery
Symbolism
Oxymoron
Juxtaposition
Pathetic Fallacy

C: The basics

Capital letters
Full stops
Question marks
Commas
Apostrophes
Consistent tense
Paragraphs
Homophone
Spellings
Connectives
Semi-colons
Colons
Vary sentence starts/lengths
Vary paragraph lengths
Topic sentences

D: Effective opening lines

"All children, except one, grow up." **J.M. Barrie: Peter Pan (1911)**

"It was the day my grandmother exploded." **Iain Banks: The Crow Road (1992)**

"Mother died today. Or maybe, yesterday; I can't be sure." **Albert Camus: The Stranger (1946)**

"All this happened, more or less." **Kurt Vonnegut: Slaughterhouse Five (1969)**

"It was a bright cold day in April, and the clocks were striking thirteen." **George Orwell: Nineteen Eighty-Four (1949)**

"All happy families are alike; each unhappy family is unhappy in its own way." **Leo Tolstoy: Anna Karenina (1878)**

"It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife." **Jane Austen: Pride and Prejudice (1813)**

E: Stretch yourself

Learn these ways to help make your writing impressive and interesting to the reader.
Impressive vocab
Break the rules!!!
Reveal slowly/quickly
Dialogue
Parenthesis (brackets)
Cohesion (topic sentence, pronouns, prepositions)
Cyclical/non-linear structure

F: THE FIVE SENSES

Sight
Focus on just a handful of details (and allow readers to paint the rest of the picture for themselves).
Make those details the best ones you can find.

Smell
The smell of a woodland in summer after rain.
Sour milk in the refrigerator.
The first smell of the sea through a car window.

Sound
One solution is an onomatopoeia...
Jangle
Clatter
Crash
Similes work well, too – "the cry of the fox sounded like a child in terrible pain."

Taste
When a character arrives at the coast, the usual thing would be to have them *smell* the sea. Instead, have them *taste* the salt on the breeze.
When a young boy captures a frog at the bottom of the garden, have him lick it... then recoil.
When a woman returns to her childhood home, have her taste her mother's roast chicken when she's still 100 miles away.

Touch
A greasy stove.
Cracked lips.
A cold handshake.

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SCIENCE

Introduction to Science

A: WHAT IS SCIENCE?

Science – A way of learning about the natural world through observation and logical reasoning.

Steps in scientific investigation

1. Identifying problem
2. Forming a hypothesis
3. Planning the experiment
4. Controlling the variables
5. Collecting data
6. Analysing and interpreting data
7. Drawing a conclusion
8. Writing a report

What is biology?

- Biology is the study of living things (organisms).
- An organism is any living thing.
- All living things share certain characteristics.

Physics is
– the scientific study of the physical world: matter, energy, motion, and force.

What is Chemistry?

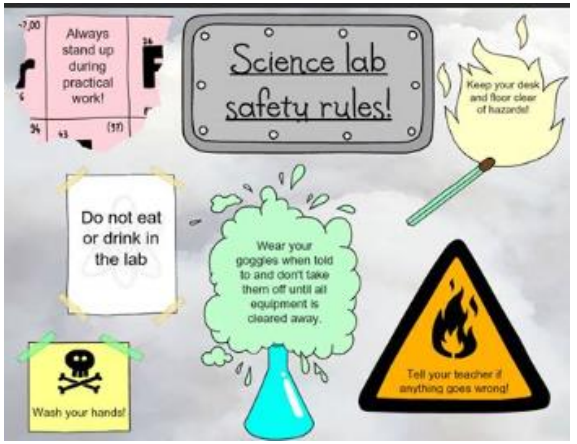
Chemistry is:
the study of matter & the changes it undergoes

B: WORKING SAFELY IN SCIENCE

- **Flammable** – Any substance that will burn if exposed to an open flame.

What is the difference between a hazard and a risk?

- **Hazard** is the object that could potentially hurt someone
- **Risk** is the harm it could do



- **Irritant** - A substance that causes inflammation upon contact with skin or mucous membranes.

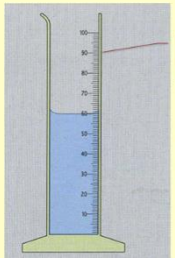
Corrosive (C) substances

- Causes severe burns, destroys living tissue!
- Wash immediately with plenty of water in case of contact with eyes or skin.
- Wear gloves and goggles, remove all contaminated clothing.

Always wear goggles or safety glasses to prevent getting anything into your eyes.

C: LABORATORY EQUIPMENT

To measure the volume of a liquid



Measuring Cylinder

Liquid Volume is measured in: Litres (l) or Millilitres (ml)

Thermometer

- A tool used to measure temperature.
- It measures the temperature of air and most liquids.
- The Greek prefix "therm" means "heat".

Conical flask

- Use: To contain chemicals or to collect liquids

Test Tube

- A test tube is used to hold or store liquids.
- It is not a precise measuring instrument.

Beaker

- A beaker is used to hold liquids.
- It is not precise enough to make good measurements.

D: THE BUNSEN BURNER

How to use a Bunsen burner

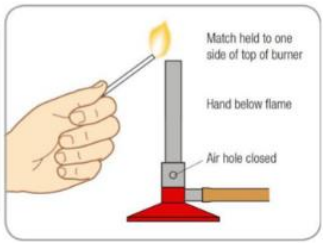
The "coolest" flame is a yellow / orange colour. It is approximately 300°C. It is never used to heat anything, only to show that the Bunsen burner is on. It is called the **safety flame**.

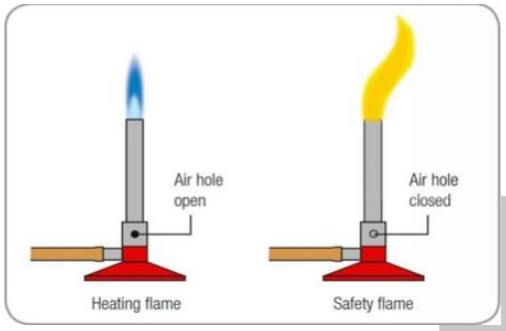
The medium flame, also called the **blue flame** or the invisible flame is difficult to see in a well-lit room. It is the most commonly used flame. It is approximately 500°C.

The hottest flame is called the **roaring blue flame**. It is characterized by a light blue triangle in the middle and it is the only flame of the 3 which makes a noise. It is approximately 700°C.

How to light a Bunsen Burner

1. Connect hose to gas tap
2. Make sure the air hole is closed
3. LIGHT THE MATCH and place near the top of the Bunsen burner
4. Turn on gas LAST





Bunsen burners are **used to heat things** in the laboratory. They use an open flame. The fuel source is gas.

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SCIENCE – Chemistry

Particles

A: PROPERTIES OF SOLIDS, LIQUIDS AND GASES

Increasing energy

Increasing force of attraction between particles

solid	liquid	gas
		
Held next to each other in fixed positions	Randomly arranged but still touching	Randomly arranged
Vibrate about their fixed positions	Move at random, while still touching	Move at random, colliding with each other
Fixed volume	Fixed volume	Volume can be changed
Fixed shape	Fits the container	Fills the container
Can't be compressed	Can't be compressed	Can be compressed (the volume can be changed if squeezed) because there's lots of space between the particles

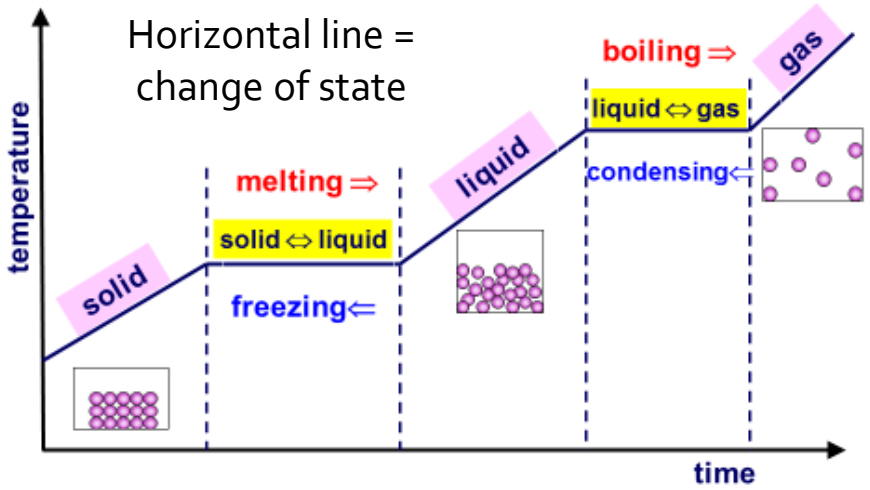
B: THE PARTICLE MODEL

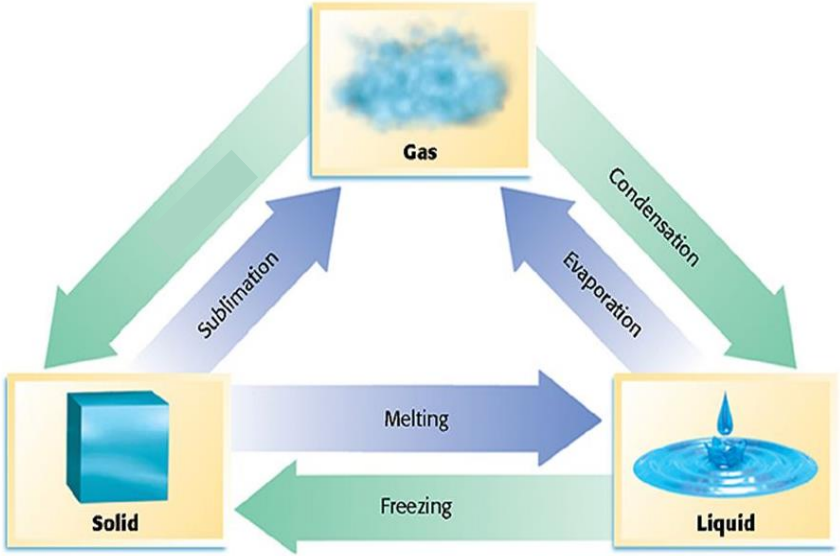
Particle: a very tiny object
The particle model shows us how particles are arranged in different substances. This helps us explain the properties of matter

Heating: particles gain energy and move further apart
Cooling: particles lose energy and move closer together

Melting point: temperature a substance melts at
Boiling point: temperature a substance boils at
Heating/cooling curve: how the temperature of a substance changes as it is heated/cooled

C: CHANGES OF STATE

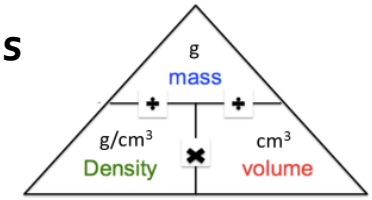


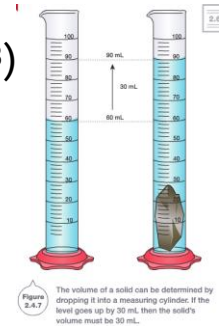


D: DENSITY

Density: mass per unit volume (kg/m³)

Measuring mas
balance/scales





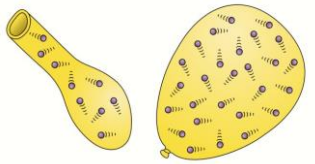
Measuring volumes…

- **solid:** length x width x height
- **Liquid:** measuring cylinder
- **Irregular solid:** place in water and measure the volume of the water that is displaced

E: GAS PRESSURE

Gas pressure: when gas particles collide with the walls of their container
Increased by….

- More particles as there are more collisions with the container wall
- Higher temperature as there are more frequent collisions with the wall of the container



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SCIENCE – Biology

Cells

A: CHARACTERISTICS OF LIVING THINGS:

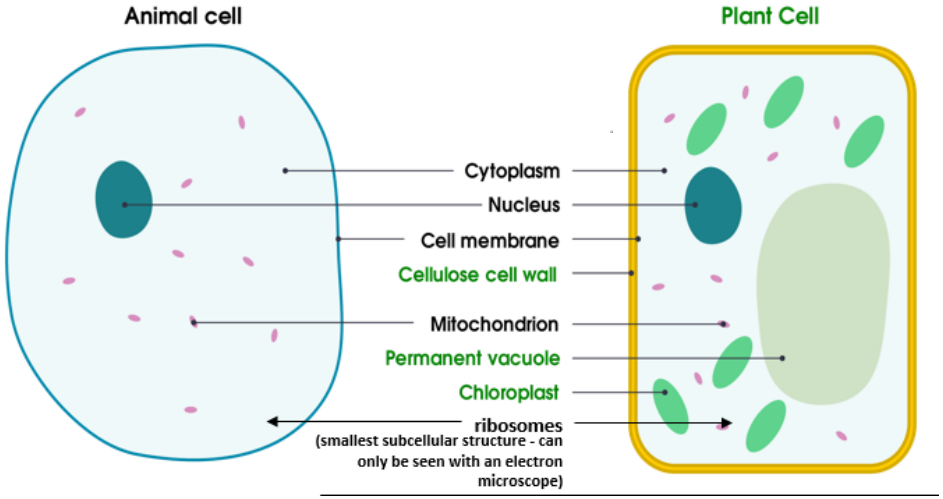
Movement
Respiration – the process of releasing energy from food
Sensitivity – ability to detect and respond to changes in the environment
Growth
Reproduction
Excretion – removal of waste products
Nutrition – taking in (or making) and using food

B: KEY TERMS

Cells: the basic structural units of all living organisms
Unicellular: living things made up of only 1 cell
Multicellular: living things made up of many types of cells
Eukaryotic cells (animal and plant cells): have a cell membrane, cytoplasm and genetic material enclosed in a nucleus
Subcellular structure: structures within a cell

Eukaryotic cells (animal and plant cells) – have a cell membrane, cytoplasm and genetic material enclosed in a nucleus

C: ANIMAL AND PLANT CELLS

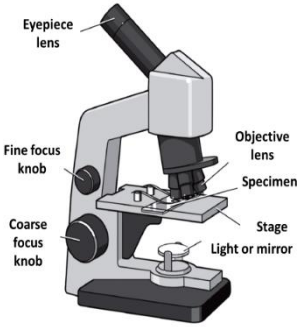


Sub-cellular Structure	Function
Cytoplasm	Jelly-like substance where most chemical reactions happen.
Nucleus	Contains genetic material (DNA) which controls the cell's activities
Cell membrane	Surrounds the cell and controls movement of substances in and out
Cell Wall	Made of cellulose and strengthens and supports the cell
Mitochondria	Where aerobic respiration happens and is where energy is released from glucose (glucose + oxygen → carbon dioxide + water)
Vacuole	Keeps the cell turgid and contains cell sap
Chloroplast	Absorb light energy so the plant can make food (glucose) in photosynthesis (carbon dioxide + water → glucose + oxygen)
Ribosomes	Where proteins are made

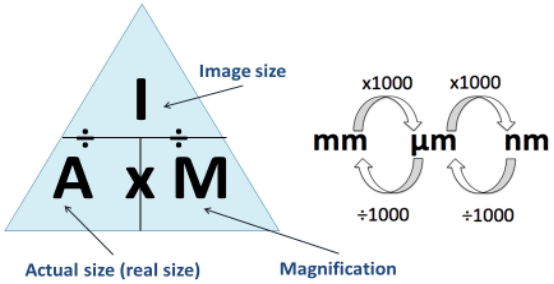
D: OBSERVING CELLS

We observe cells using microscopes.
A light microscope uses visible light and lenses.
Key features:

- Stage
- Objective lens
- Eye piece lens
- Focus adjustment
- Light source

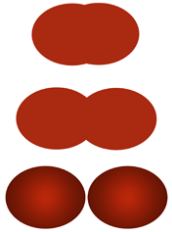


An electron microscope uses electrons and electron lenses. It has a higher resolution and magnification than a light microscope.



Magnification: how many times bigger than it actually is
Resolution: minimum distance apart that two objects can be in order for them to be seen as separate objects

- Milimeter = thousandth of a meter ($x10^{-3}$)
- Micrometer = millionth of a meter ($x10^{-6}$)
- Nanometer =billionth of a meter ($x10^{-9}$)

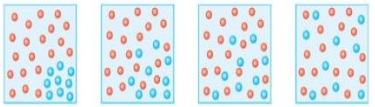


E: SPECIALISED CELLS – cells that have a structural adaptation to perform a particular function

Cell		Animal or plant?	Function	Adaptation	How the adaptation helps it to carry out its function
Sperm Cell		Animal	To carry genetic information to the egg cell	Long tail	Help it swim
				Lots of mitochondria	Provide energy for swimming
				Nucleus has half the genetic information	So when it fuses with an egg the cell has a full set of genetic information
Red Blood Cell		Animal	To transport oxygen around the body	No nucleus	More space for oxygen
				Large surface area (biconcave)	More space for oxygen to diffuse into the cell
Root Hair Cell		Plant	To absorb water and mineral ions from the soil	Large surface area	Increase rate at which water and mineral ions can be absorbed
Palisade cell		Plant	Absorb sunlight for photosynthesis	Many chloroplasts	Absorb lots of sunlight for photosynthesis

F: DIFFUSION: the net movement of particles from an area of high concentration to an area of low concentration, until their concentration is even.

Affected by: temperature, concentration and pressure.



Good exchange surfaces have: a large surface area, a big concentration gradient and a short diffusion distance.

Substances which diffuse in or out of cells

Diffuse IN	Diffuse OUT
Oxygen (raw material for respiration)	**Carbon dioxide** (waste from respiration)
Carbon dioxide (PLANTS ONLY, raw material for photosynthesis)	**Oxygen** (PLANTS ONLY, made in photosynthesis)
Glucose (raw material for respiration)	**Urea** (a cell waste product)
Amino acids (raw materials to build the cell)	

G: CANCER

Cell division: the process by which new cells are made. We need new cells for growth and repair.
Tumour: a mass of cells resulting from uncontrolled cell division.
Benign tumour: Not cancerous, not invasive, slow growing.
Malignant tumour: Cancerous, invasive and fast growing.
Tumours travel and spread via the blood.

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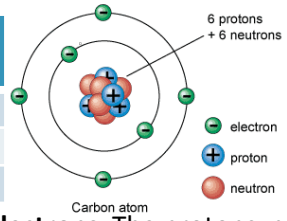
SCIENCE – Chemistry

Atoms

A: Atoms

Subatomic particle	Charge
Protons	+1
Neutrons	0
Electrons	-1



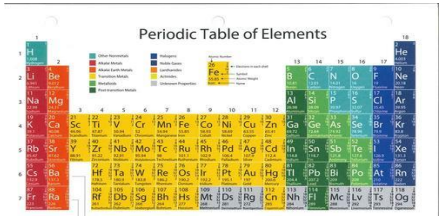
Atoms are made up of **protons, neutrons** and **electrons**. The protons, neutrons and electrons are called **sub-atomic particles** as they are smaller than an atom.
In an atom the number of protons and electrons is the same so it has **no overall charge**.
The **nucleus** contains the protons and neutrons. The electrons move around the nucleus in **shells**. There is **empty space** between the nucleus and the shells.

B: Key definitions

Key word	Definition
Element	A substance made up of only 1 type of atom
Compound	A compound is two or more different atoms chemically bonded together
Mixture	A mixture is made up of two different elements or compounds that are not bonded together
Molecule	A single unit of between 2 and 100 atoms chemically bonded together
Chemical bond	A strong connection between two atoms
Chemical symbol	A universal code that represents an element
Nanometre	A billionth of a metre

C: The periodic table

The **periodic table** of elements shows the **names** and **symbols** of all the different elements. Different elements have different numbers of protons



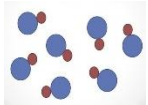
There are approximately **100** different elements in the periodic table.
The **first letter** is always **upper case** and the **second letter** is **lower case**.

D: Scientific models:

A scientific model is a **representation** of a scientific idea, object or process.
They change over time based on new **experimental evidence**.

E: Molecular substance

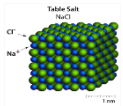
A molecular substance is a substance made up of different **molecules** which are **not bonded** together.



Examples of molecular structures are hydrogen, oxygen, water, carbon dioxide and methane.

F: Giant substances

A **giant substance** is made of billions of atoms that are chemically bonded together.
Three examples of giant substances are:
Sodium chloride has a molecular formula of NaCl. Salt is a giant substance as it has billions of atoms all chemically bonded together.



Diamonds are made up of billions of carbon atoms joined together. Diamonds are shiny and quite rare, this means they are very expensive.

Graphite is also made of carbon but instead of looking shiny like diamond graphite is a grey-silver colour. The lead in your pencil isn't made of lead but is actually graphite made up of carbon.

G: Chemical formulae

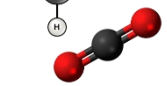
The molecular formula is the combination of symbols and small subscript letters. The **small letter** tells us how many **atoms** the element contains.

Oxygen = O_2

Water = H_2O

Methane = CH_4

Carbon dioxide = CO_2



Nitrogen = N_2

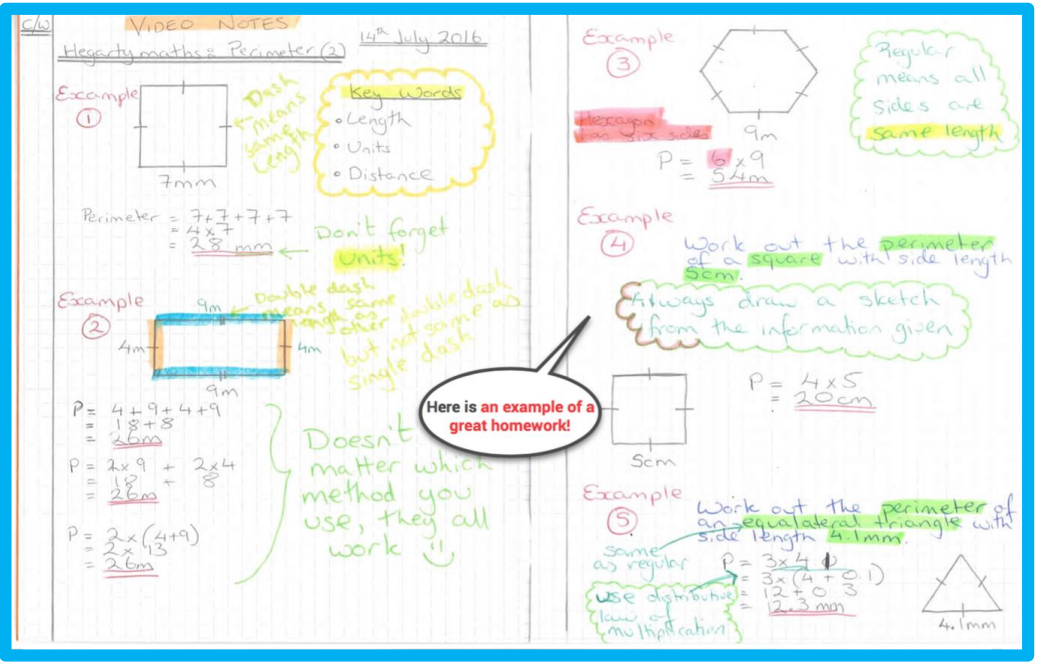
Air is a mixture of molecules, mostly **oxygen** and **nitrogen.**

YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

MATHS
Hegarty Maths Advice

Our weekly homework routines...

1	You will always be set at least one homework a week by your teacher.
2	Your teacher will choose the lesson they want you to learn and will pick it so that you are revising an important maths topic for revision. As such, you have already probably covered it in class but might have forgotten so your homework is to revise as, to be a great learner, you need to revise all the time (not just before tests!).
3	You need to spend **between 30 minutes and 1 hour** on your homework as this shows effort and commitment and will ensure that you do quality homework.
4	You will always be expected to i) watch the video + take notes; ii) write down your quiz workings neatly; iii) mark your own work, make corrections and write down your score at the end.
5	Homework will be checked by your teacher in class once a week during your starter. You will be expected to bring your homework book to class and leave it open on the desk for your teacher to inspect.



10 things a student should do when completing HegartyMaths homework

	Student checklist for good HegartyMaths homework	✓ or ✗
1	I always write the date, title, clip number and H/W for all my tasks.	
2	I always watch the video before attempting the questions.	
3	I always take full notes of all the examples modelled in the video.	
4	I copy every question that I attempt in my book.	
5	I show all my workings for every question in the quiz that I do.	
6	I try to model my work the way I was shown in the video by Mr Hegarty.	
7	I use a pencil and ruler for all diagrams.	
8	I mark my work correct/incorrect as I go.	
9	I write down corrections when HegartyMaths tells me the correct answer.	
10	I write down my score at the end of quiz .	

5 things you should do when you want to do extra work

	Action	✓ or ✗
1	I go back to my donut and pick lessons that are **red** (<70%) to redo them to make them **amber** (>70%) or **green** (100%).	
2	I go back to my donut and pick lessons that are **amber** (>70%) to redo them to make them **green** (100%).	
3	When working on lessons that are **red** or **amber** and I cannot make them **100%,** I rewatch the video and look at the building blocks which may help me.	
4	I complete a **Fix-Up-5** where HegartyMaths gives me 5 practice questions on parts of maths that I might be weak on.	
5	If my teacher has given me a revision list of clips on HegartyMaths, then I pick a topic on that list and complete a homework the normal way by myself.	

You will **always** produce a set of well-written notes of all the modelled examples in the video as we want you to be an expert note-taker and to revise before you try the quiz. **If you know the material, you still have to take the notes as sometimes you have to revise topics you already know and it's good for your long-term maths memory.**

YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

SPANISH

Present Tense

KO Quizlet link
https://quizlet.com/_5hw1zi

Four ways to say 'you'

Definite articles

In Spanish **el, la, los, las** meaning *the* also show you whether the word is masculine or feminine (the gender of the word) and they are placed in front, just like the indefinite articles.

	masculine	*feminine*
singular	el osito	la revista
plural	los ositos	las revistas

1 Plurals

To make a noun plural in Spanish you add an 's' if the word ends in a vowel. Add 'es' if the word ends in a consonant.

Examples:
emoticón – emoticonos (no accent!)
móvil – móviles

All nouns in Spanish are either masculine or feminine.
un helado — **una** hamburguesa

The plural form *some* is **unos** helados — **unas** hamburguesas

un/unos, una/unas (*a, an, some*) are called indefinite articles.

2 The present tense

Remember, a verb is a doing word like 'running', 'cooking' or 'dreaming'.

If you look up a verb in the dictionary you will find its infinitive form.

All Spanish infinitives end in **-ar**, **-er** or **-ir**. To help you remember we also refer to the infinitive as the 'king' because it is the most important part of a verb and it rules all others.

Pronombres personales (Who?)		Irregular: *to be* SER		Regular: Ejemplo: **hablar** (*to speak*) –AR		Ejemplo: **aprender** (*to learn*) –ER		Ejemplo: **vivir** (*to live*) –IR	
Singular	yo *(I)*	soy	I am	hablo	I speak	aprendo	I learn	vivo	I live
	tú *(you)*	eres	Are you?	hablas	Do you speak?	aprendes	Do you learn?	vives	Do you live?
	él/ella *(he/she)*	es	He/she/it is	habla	He/she speaks	aprende	He/she learns	vive	He/she lives
Plural	nosotros/as *(we)*	somos	We are	hablamos	We speak	aprendemos	We learn	vivimos	We live
	vosotros/as *(you)*	sois	You(pl) are	habláis	You(pl) speak	aprendéis	You(pl) learn	vivís	You(pl) live
	ellos/as *(they)*	son	They are	hablan	They speak	aprenden	They learn	viven	They live

4

llamarse	tener	ser
me llamo	tengo	soy
te llamas	tienes	eres
se llama	tiene	es
se llaman	tienen	son

5

In Spanish all adjectives have a masculine form and a feminine form. We use the masculine to describe masculine nouns and the feminine to describe feminine nouns.

If the masc. ends in:	the feminine form:
-o	changes to -a
-l,- s, -e, or -n (except nationalities)	there is no change
-r	add an -a
-a (some exceptions like *rosa*)	there is no change

Remember you must also make them plural by adding an 's' or 'es' if the noun they describe is plural.

30 = treinta	70 = setenta
40 = cuarenta	80 = ochenta
50 = cincuenta	90 = noventa
60 = sesenta	100 = cien

YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

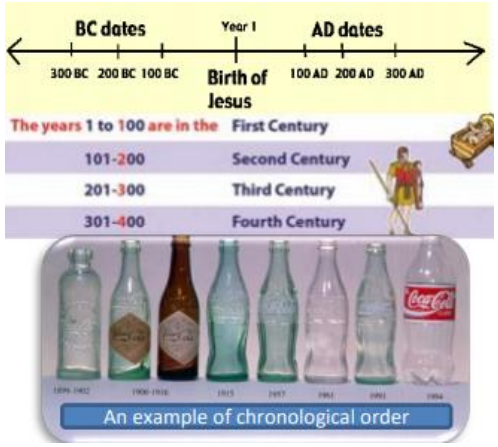
HISTORY
Introduction and Skills

A: Key Words and Definitions Part 1

Key Word	Definition
Anachronism	A mistake in placing something in time order.
AD	Stands for 'Anno Domini'. Is Latin for 'in the year of the Lord' – it means the number of years since the birth of Jesus Christ.
BC	Stands for 'Before Christ' – it means the number of years before the time of Jesus Christ.
Century	A period of 100 years.
Change and Continuity	**Progress** is **change** for the better. **Continuity** is when things stay the same. **Regress** is **change** fir the worse.

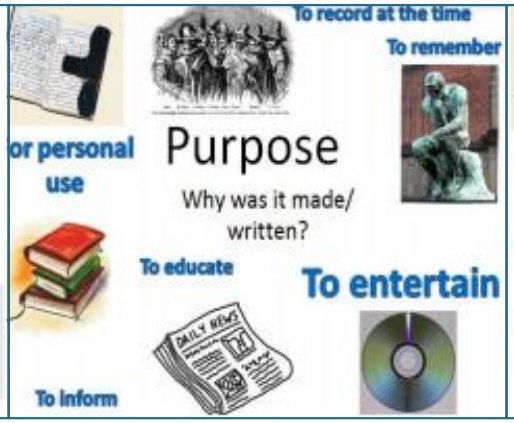
B: Key Concepts

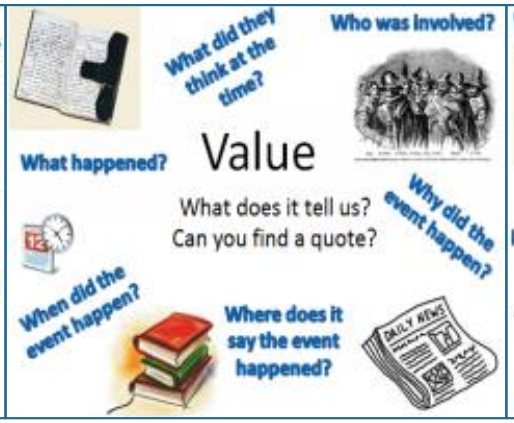
- Chronology
- Using Sources
- Reliability
- Interpretations
- Change and Continuity

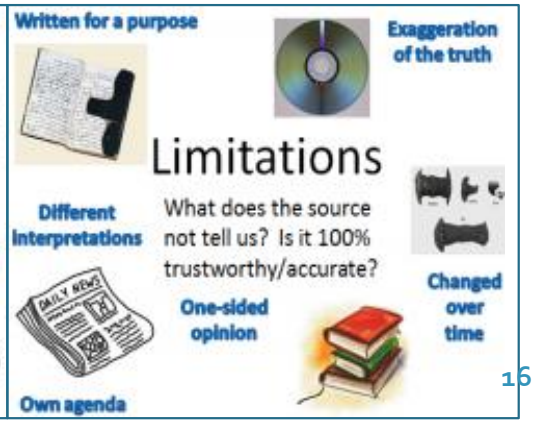


C: Key Words and Definitions Part 2

Key Word	Definition
Chronology	The study of exactly *when* things happened.
Interpretation	The meaning of a source/piece of work and the reasons why it is different to other works.
Pre-historic	Refers to a time before writing existed.
Reliability	How much we can believe or trust a source.
Sources	**Primary Source** – is a document or object that was created during the time period of study. **Secondary Source** – is an account or interpretation of events. It was not written during the time period.







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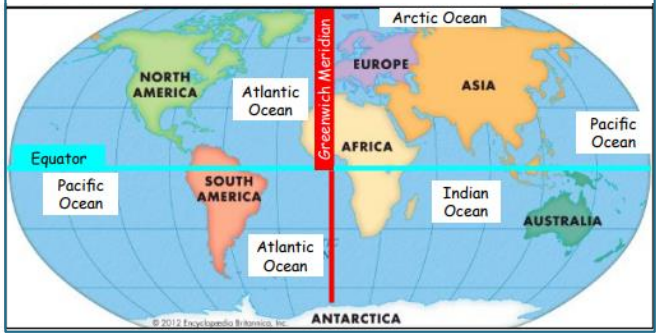
GEOGRAPHY

Passport to Geography

A: Continents, Oceans and Lines of Latitude and Longitude



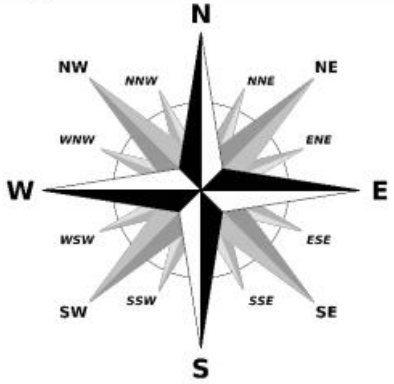
B: Key terms

Human geography - The study of how humans affect, or are affected by, the earth.
Physical geography - The study of the natural features of the earth.
Ocean - A very large expanse of sea.
Continent - Any one of seven large land masses of the Earth.
Country - A nation with its own government, occupying a particular area.
Capital city - The most important city in a country, usually where the government is based.
Compass - An instrument showing the direction of north using a magnet.
Longitude - Vertical lines on a map that show how far east or west a place is. It is measured in degrees (°).
Latitude - Vertical lines on a map which show how far north or south a place is, measured in degrees (°).

C: Physical geography

D: 16 point compass directions

N = North	E = East
S = South	W = West
e.g.- NNE = North North East	



E: Grid references

Four figure
Start at the left-hand side of the map and go east until you get to the easting crossing through the bottom-left-hand corner of the square you want. Write this number down.

Move north until you get to the northing crossing the bottom-left-hand corner of the square you want. Look at the number of this grid line and add it to the two-digit number you already have. This is your four-figure grid reference.

Six figure
First, find the four-figure grid reference but leave a space after the first two digits. When you get to the easting at the left-hand side of the grid square you want, keep moving east and estimate or measure how many tenths across your symbol lies. Write this number after the first two digits.

Next, move north from the bottom-left-hand corner of your grid square and estimate how many tenths your symbol is from this point.Put them together to create a six figure grid reference.

F: Scale

Most maps have a scale. These help us to work out distances on maps. This is given by the scale statement (eg 1:25,000) and/or by showing a scale bar.

The scale shows how much bigger the real world is than the map. If the scale is 1:50,000 it means that the map is 50,000 times smaller than the real world.

G: Map key terms

Grid reference - A map reference indicating a location in terms of a series of vertical and horizontal grid lines identified by numbers or letters.
Ordinance Survey (OS) - A national mapping agency in the United Kingdom which covers the island of Great Britain.
Contour lines - A series of lines on maps which connect areas of the same height.
Symbols - A picture used to show a particular feature on a map..
Key - A list of symbols and colours used to show information on a map.

YEAR 7
HOMEWORK
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PHILOSOPHY AND ETHICS

Does God exist?

A: Key terms

Key Term	Definition
Agnostic	Do not believe you can prove whether God exists or not or you don't know.
Atheist	Do not believe in God.
Believe	To accept that something is true, usually without proof.
Big Bang	Scientific theory for the beginning of the universe.
Creation	Story about the beginning of the earth/ universe.
Design Argument	Argument for God's existence. Creation is too detailed and complex to have happened by accident.
Evolution	Living things adapt and develop to their environment.
Omnibenevolent	All loving
Omnipotent	All powerful
Omniscient	All knowing
Revelation	God shows himself in different ways.
Theist	Belief that God exists.

B: Arguments for the existence of God

For

Creation: Nothing comes from nothing. Something or someone must have started the universe. Religious stories like Genesis tell us how the world began. This story says the world was created in 7 days and different things were created on different days. For example humans and animals were created on day 6.

The Design Argument: There must be a designer behind the world as it is so beautiful and complex in design. E.g the human eye. Religious people believe the designer is God. William Paley explained this argument with the analogy of the watch.

Revelation: Many people say they have experienced God. **Guru Nanak** had a religious experience where he disappeared for three days by a river and reappeared to tell everyone he had met God. Muhammad (pbuh) had a religious experience known as the Night of Power. Muhammad (pbuh) received the first of a series of revelations from Allah through the angel Jibreel. These were used directly to write the Qur'an.

YEAR 7
HOMEWORK
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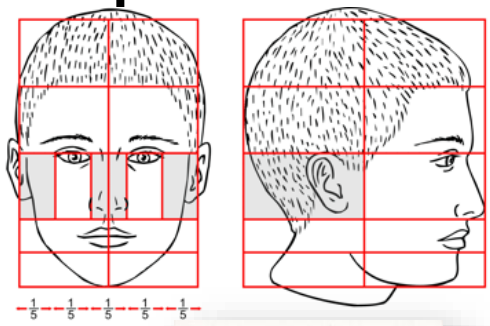
ART
Portraits

A: Rules of Facial Proportions

1. Eyes are ½ way down the face.
2. Nose is ½ way between eyes and chin.
3. Mouth is ½ way between nose and chin.
4. You can fit 5 eyes across the face.
5. The nose is an eye in length.
6. Eyebrows are 1 eye above.
7. Ears are from the eyebrows to the nose.
8. Neck starts at the ears –jawline and shoulders should be able to fit one head on each.

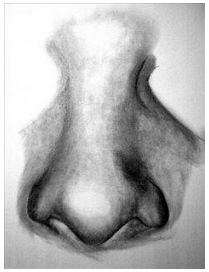


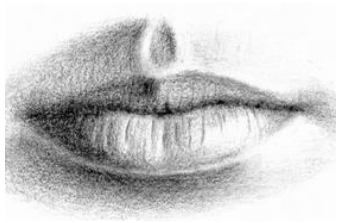
B: Emotions

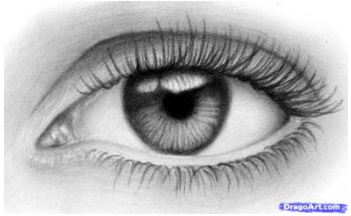
Practise drawing different emotions.

C: Tone

Remember where tone goes, practise drawing the individual facial features.







E: Vocabulary to describe Kathe Kollwitz's work

- Bold
- Sadness
- Upsetting
- Moving
- Misery
- Representing
- Family
- Evocative
- Grief
- Sorrow
- Distressing
- Trauma
- Haunting
- Contrasting
- Expressive
- Tormenting
- Poignant
- Emotive
- Detailed
- Harrowing
- Symbolic

D: Vocabulary

Tone-This refers to the lightness or darkness of something. This could be a **shade** or how dark or light a colour appears.
Facial features-This refers to the different **details** on a face such as the eyes, nose and mouth.
Facial proportions The rules in which a face is **formed**. So where the eyes, nose and mouth etc are placed on a face.
Tonal range & Contrast This refers to the amount of light and dark tones in a drawing.

YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER
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MUSIC

What is music?

A: Elements of Music

Dynamics – The volume of the music
Rhythm – The beat of the music
Structure – The order of the music
Melody – The tune of the music
Instrumentation – The types of instruments used
Tempo – The speed of the music
Tonality – How the music sounds
Texture – How many instruments are playing at the same time
Harmony – The accompaniment

B: The Orchestra

Strings

All use the vibrations from the strings to make a sound.

- Violin
- Viola
- Cello
- Double Bass
- Guitar
- Harp

Woodwind

All were originally made out of wood.
All use a mouthpiece with a reed.

- Flute
- Clarinet
- Oboe
- Bassoon
- Saxophone

Brass

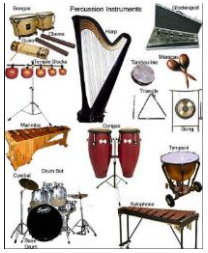
All made out of brass
All use a mouthpiece but need certain vibrations to make the sound.

- Trumpet
- French Horn
- Trombone
- Euphonium
- Tuba

Percussion

All need to be striked, scraped or shaked to make a sound.
Can be tuned or untuned.

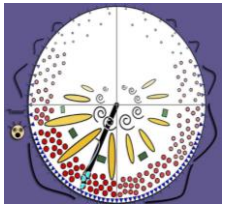
- Bass Drum
- Snare Drum
- Glockenspiel
- Triangle
- Tambourine



C: Other Notation

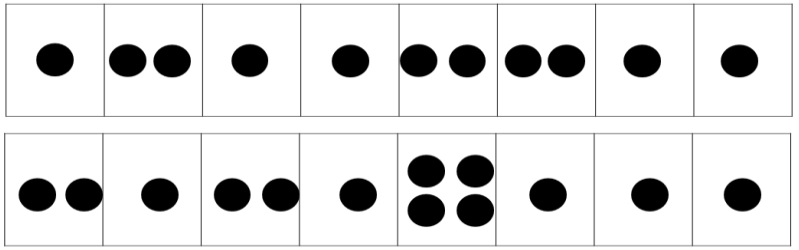
Graphic Scores

A graphic score is a picture or image that is used to create a piece of music. Composers take inspiration from the picture and incorporate it into their compositions.



Box Notation

Box notation uses dots to group notes together. Each square is one beat.
You must keep a constant speed and make sure all notes are equally spaced.



YEAR 7
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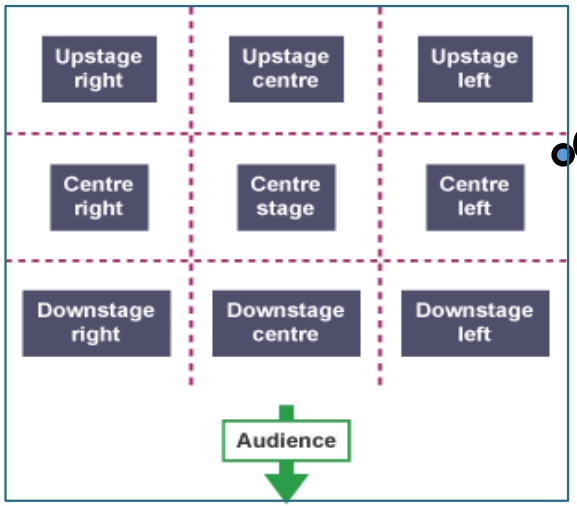
DRAMA

Skills

Improvisation—this is when you make up a section or scene of a performance on the spot to help create more ideas.

A: Areas of the Stage



Remember: The areas of the stage are always from the performer's point of view as they are standing on the stage.

Flashback — when the action of the performance goes back in time to show something that happened previously.

Freeze Frame – a still image created by the actors to mark an important moment of a performance or for a transition between scenes

B: Vocal

Tone	A quality in the voice which expresses the speaker's ***feelings or thoughts***. E.g. sad, happy, angry
Pitch	The relative ***highness or lowness*** of the voice.
Pace	The ***speed*** at which the line is delivered.
Volume	The level of sound produced. E.g. loud, quiet, whispered
Clarity of diction	The quality of being ***loud and clear***.
Pause	A short period in which something such as a ***sound or activity*** is stopped before starting again.

C: Physical Skills

Gesture	***A movement of part of the body, especially a hand or the head,*** to express an idea or meaning.
Posture	The ***position in which someone holds their body*** when standing or sitting.
Facial Expression	***An expression shown on the face*** depending on a character's emotions. E.g. sad, happy, angry
Gait	How a character ***moves*** around the stage space. E.g. small steps, large strides.

Mime – this is purely movement during performance and does not include any dialogue.

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COMPUTER SCIENCE

E-Safety

A: Definition of e-safety

e-safety is a term which means not only the internet but other ways in which young people communicate using electronic media, e.g. mobile phones.

B: Key terms to do with e-safety

Key Term	Definition
Cyberbullying	The bullying of another person using the internet, mobile phones and other digital devices, with the intent to deliberately upset them.
Cyberpal	A friend who you only communicate with through the internet or cyberspace.
Chat Room	A website or part of a website which allows people to
Netiquette	Correct or acceptable way of communicating on the internet
Password	A secret word or phrase that must be used to gain access to something.
Spam	An email that is sent to a large number of people and mostly consists of advertising.
Cyberstalking	Repeated use of electronic communication to harass or frighten someone.
Emoji	Small digital image or icon used to express an idea, emotion etc.
SNS	An online platform that allows users to create a public profile and interact with others.
Online Grooming	Deliberate act taken to befriend and create an emotional connection with a child, resulting in not good intentions.
Hacking	Gaining access to a computer, with the intension of stealing or causing damage.
IM	Instant Messaging
Sexting	Sending sexually explicit messages or images by mobile phone and other electronic devices.
Download	Copying data from one computer system to a another, typically over the internet.
Block	Action taken to stop interactions from set people via online communication.

C: Memorisation

There are key elements of each examination course that need to be fully memorised in order for you to obtain the highest marks possible in the exam. The information below should be a priority for memorising.

5 top tips for safer social networking:
Know who your friends are.
Share with care.
Use privacy settings.
Know how to report.
Know how to get help

5 pieces of personal information never to give out online:
Your name
Your school
Where you live, street or area
Where you hang out
What after school clubs you go to

Information threats :
Hacking – illegal entry to data through computer misuse
Phishing – fake websites and emails that take your personal information
Viruses and malware – software that harms the PC

Who can help:

Cyberbullying is an extremely unpleasant and upsetting experience.

There are several authorised websites that offer advice on how to stay safe online and what to do if Cyberbullying occurs:

• BBC Webwise (www.bbc.co.uk/webwise)

• Childline (http://www.childline.org.uk)

• ThinkUKnow run by the Child Exploitation and Online Protection Centre (CEOP) (www.thinkuknow.co.uk)

• The Bullying UK helpline is available on 0808 800 2222, and Childline can be contacted on 0800 1111.

D: Sites and Apps

Facebook
My Space
Twitter
Snap Chat
What's App
Instagram

YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER
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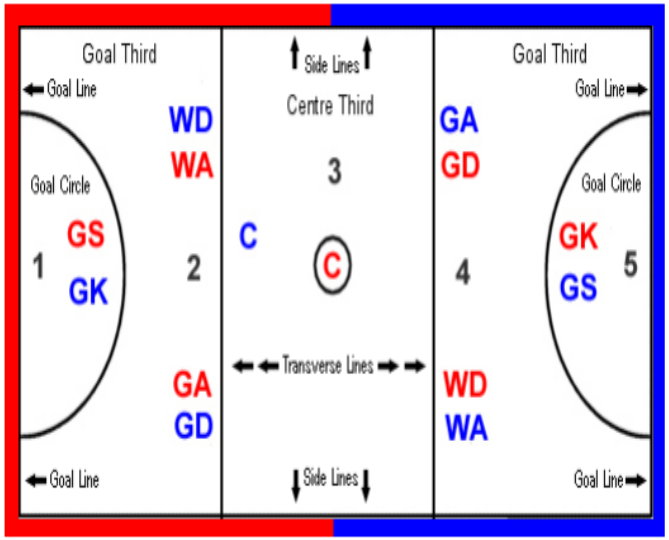
PE - Girls

Netball

A: Players and Positions

PLAYERS:
A netball team consists of up to 12 players with 7 players allowed on court at any one time. A team may take the court with a minimum of 5 players.

Netball Court showing starting positions for a centre pass



Positions, Responsibilities and Areas Permitted

Position	Responsibilities	Court Area
GS	To score goals and to work in and around the circle with the GA	1 & 2
GA	To feed and work with GS and to score goals	1, 2 & 3
WA	To feed the circle players giving them shooting opportunities	2 & 3
C	To take the Centre Pass and to link the defence and the attack	2, 3 & 4
WD	To look for interceptions and to prevent the WA from feeding the circle	3 & 4
GD	To win the ball and reduce the effectiveness of the GA	3, 4 & 5
GK	To work with the GD and to prevent the GS from scoring goals	4 & 5

B: Rules

PLAYING TIME: A game consists of 4 x 15 minute quarters
CENTRE PASS: Alternate for each team. The Centre must be wholly within the Centre Circle and must obey the footwork rule after the whistle has been blown. The Centre pass must be caught or touched by a player standing in or landing wholly within the Centre third.

MINOR INFRINGEMENTS- FREE PASS
Breaking the following rules will result in a FREE PASS (can be marked by the offender) being awarded to the opposing team.
OFFSIDE: Player moving out of permitted area, with or without ball (on a line counts as within either area).
BREAKING AT THE CENTRE PASS: A player moving into the Centre third before the whistle is blown for the Centre pass.
PLAYING THE BALL: 3 seconds to pass or shoot, after catching otherwise it is a HELD BALL. A player may bounce or bat the ball once (with one hand) to gain control. A player on the ground must stand up before playing ball
OVER A THIRD: Ball may not be thrown over a complete third without being touched or caught by a player wholly within that third.
FOOTWORK: Passing or shooting the ball, whilst moving/hopping/dragging your landing foot.

MAJOR INFRINGEMENTS- PENALTY PASS
Breaking the following rules will result in a PENALTY PASS or PENALTY PASS OR SHOT (can't be marked by the offender) being awarded to the opposing team.
A PENALTY PASS (or PENALTY PASS/ PENALTY SHOT if in the goal circle) is awarded where the infringement occurred. The offending player must stand beside the thrower until the pass or shot has been taken.
OBSTRUCTION: Player with the ball: Standing closer than 0.9m / 3ft
Player without ball: the defender may be close, but not touching, providing that no effort is made to intercept/defend the ball and there is no interference with the opponents throwing or shooting action. Arms must be in a natural position, not outstretched, and no other part of the body or legs may be used to hamper an opponent.
CONTACT: No player may contact an opponent, either accidentally or deliberately, in such a way that interferes with the play of that opponent or causes contact to occur.
OUT OF COURT - THROW IN: Taken for a ball which leaves the court. Must be set from where it went out (in-line with Umpire).
TOSS-UP: For all simultaneous infringements. The two players stand facing each other with hands by their sides. Umpire flicks the ball upwards the height of the tallest person's shoulder.

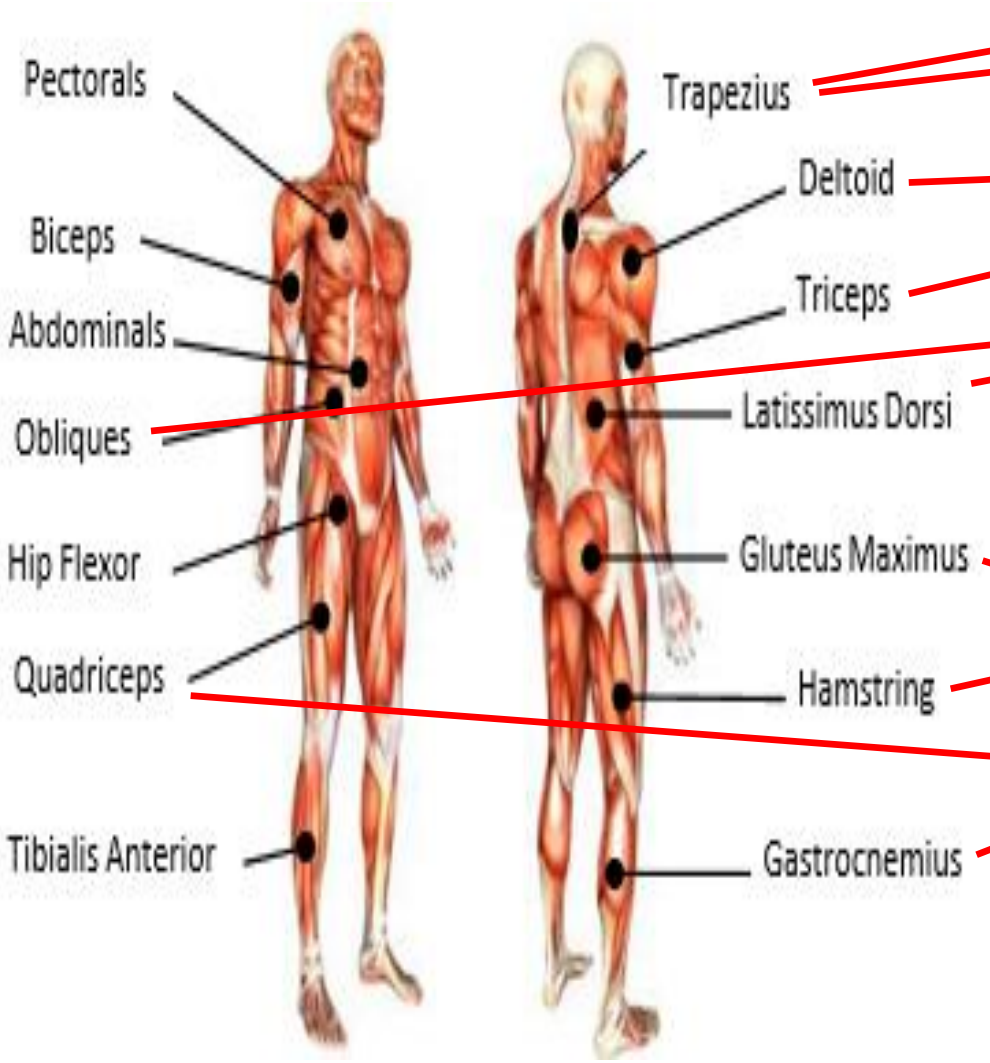
YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

PE - Boys

Warm Ups

A: Location and names of muscles

Learn where they are found in the body and how to spell them.



B: How to stretch each muscle

Learn which stretch to use for each muscle.

YEAR 7
HOMEWORK
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Autumn Term 1

DT – Miss Radford's Group

Food

A: Key words

The bridge hold- Shaping your hand like a bridge for safe chopping
The claw grip- Shaping your hand like a claw for safe cutting
Aesthetics- making your final product attractive
Portion size- A recommended serving size for your age
Mis en place- Preparation time at the start on a practical
The Eatwell Guide- A healthy eating guide for a balanced diet

B: Key Verbs

Chopping
Whisking
Mixing
Measuring
Rubbing in
Beating
Sieving
Weighing

C: At the start of every practical lesson:





D: Bridge and claw method for safe cutting

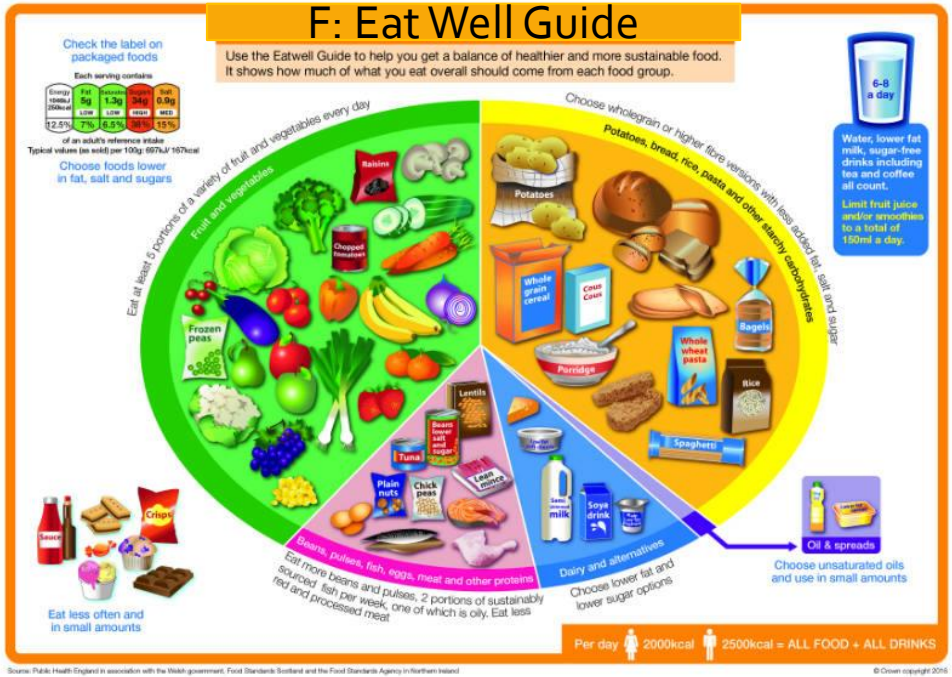
Make a bridge over the vegetable with your hand

Make a claw with your hand by partly curling your fingers together

E: How much sugar is in your food?

Children aged 11 and over should be having no more that **7tsp** of sugar per day.

F: Eat Well Guide



G: 8 government guidelines for a healthy diet

1. Base your meals on starchy foods.
2. Eat lots of fruit and vegetables.
3. Eat more fish- including a portion of oily fish each week.
4. Cut down on saturated fat and sugar.
5. Eat less salt- no more than 6g a day for adults.
6. Get active and be a healthy weight.
7. Don't get thirsty- drink plenty of water.
8. Don't skip breakfast.

YEAR 7
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

DT – Miss Cockayne's Group

Textiles

A: Fabric

Natural Fabrics: Cloth made from natural substances, such as; cotton and linen from plants, wool from goats and sheep and leather from cows' skin.

Man-made Fabrics: Cloth made from man made chemicals, usually different forms of plastic, such as Polyester, Nylon, Viscose and Lycra. All these are made from oil.

Decorative: Something done to look attractive

Pattern: Templates used in sewing to cut fabric to the right shape and size.

Fabric Scissors: Special sharp scissors used for cutting fabric only.

B: Health and Safety in the Textiles Room

- Make sure the sewing machine is switched off while threading up.
- Carry scissors with the blade pointing down.
- Keep noise levels low so you can hear teacher instructions
- During practical keep all chairs tucked under the tables.
- Only one person on each sewing machine.

Danger

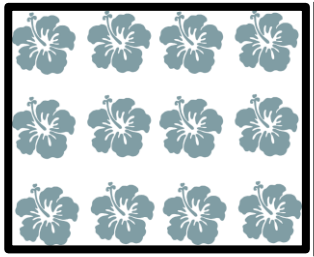
C: Block Printing

Block printing involves carving a pattern or design onto a block. The design is covered in paint, ink or dye and then stamped onto fabric.

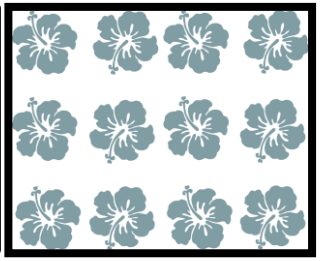
D: Equipment Guide

E: Creating a Pattern

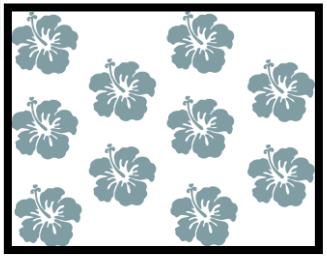
Repeat



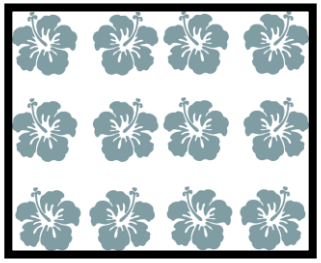
Rotation



Half Drop



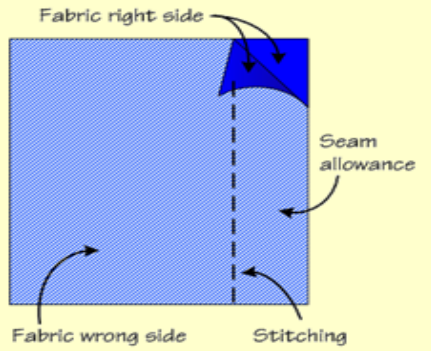
Reflection



F: Seam Allowance

The standard seam allowance is 15mm. Usually this measurement is already added onto a dress-making pattern but occasionally you may have to add it yourself.

Maintaining a **standard seam allowance** is one of the most important ways in which we use **Quality Control** to produce accurate and symmetrical products.



All our sewing machines have markings on the needle bed to help your accuracy in measuring and maintaining this seam width.

Notes/Reminders:


WORK
HARD
BE KIND