NOTTINGHAM
FREE SCHOOL

YEAR 8
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

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

Contents Page

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

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

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

HEAD OF SCHOOL'S PAGE

General Knowledge

A: Our World – Capital Cities of Europe (A – C)

Albania	Tirana
Andorra	Andorra la Vella
Armenia	Yerevan
Austria	Vienna
Azerbaijan	Baku
Belarus	Minsk
Belgium	Brussels
Bosnia and Herzegovina	Sarajevo
Bulgaria	Sofia
Croatia	Zagreb
Cyprus	Nicosia
Czech Republic	Prague

B: The UK – Political Parties

Conservative Party	Great Britain
Labour Party	Great Britain
Liberal Democrats	Great Britain
Social Democratic and Labour Party	Great Britain
Green Party	United Kingdom
UK Independence Party	United Kingdom
Scottish National Party	Scotland
Plaid Cymru	Wales
Democratic Unionist Party	Northern Ireland
Alliance Party of Northern Ireland	Northern Ireland
Sinn Fein	Northern Ireland
Ulster Unionist Party	Northern Ireland

C: The UK – Prime Ministers

2016 – Current	2010-2016	2007-2010	1997 - 2007	1990 - 1997	1979 - 1990	1976 - 1979	1974 - 1976
Theresa May	David Cameron	Gordon Brown	Tony Blair	John Major	Margaret Thatcher	James Callaghan	Harold Wilson
Conservative	Conservative	Labour	Labour	Conservative	Conservative	Labour	Labour

D: Local facts - Nottingham

Goose fair started in 1284 and is one of the oldest events in the world

Ibuprofen (painkiller) was discovered by a Nottingham pharmacist

The deepest toned bell in market square is called 'Little John' and rings every 15 minutes

George Green is a scientist from Nottingham who was highly recognised by the famous physicist, Albert Einstein

E: 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

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

ENGLISH

Of Mice and Men

A: Plot

It is a parable about what it means to be human. Steinbeck's story of George and Lennie's ambition of owning their own ranch, and the obstacles that stand in the way of that ambition, reveal the nature of dreams, dignity, loneliness, and sacrifice.

Protagonist

The protagonist of the story is George. He is the kind-hearted ranch hand who is concerned about his friend Lennie and watches out for him.

Antagonist

The antagonist of the story is George's trying to care for Lennie. Because he has a giant's body and a child's mind, Lennie accidentally kills Curley's wife; at the same time he kills the dream of owning a farm that has kept George and Lennie positive about the future

B: Key Quotations

1. George: "Guys like us, that work on ranches, are the loneliest guys in the world. They got no family. They don't belong no place..."
2. Slim: "Carl's right, Candy... I wisht somebody'd shoot me if I got old an' a cripple"...Candy looked helplessly at him, for Slim's opinions were law.
3. Candy: "I ought to of shot that dog myself, George. I shouldn't of ought to let no stranger shoot my dog"
4. They looked at one another, amazed. This thing they had never really believed in was coming true. George said reverently, "Jesus Christ! I bet we could swing her." His eyes were full of wonder.
5. Crooks: "Ever'body wants a little piece of lan'. I read plenty of books out here. Nobody never gets to heaven, and nobody gets no land."
6. Curley's wife: 'She stood still in the doorway, smiling a little ..."They left all the weak ones here..."'
7. Curley's wife: "Well, you keep your place then, Nigger. I could get you strung up on a tree so easy it ain't even funny."
8. About Curley's wife: "And the meanness and the plannings and the discontent and the ache for attention were all gone from her face. She was very pretty and simple, and her face was sweet and young."

C: Context

Steinbeck encourages us to empathise with **the plight of migrant workers** during the **Great Depression**.

The **prejudices** of 1930s America are exposed, including **racism**, **sexism** and **ageism**.

Steinbeck explores the tension between the **inevitability of fate** and the **fragility of human dreams**. Theme of **fate** runs through the novella parallel to the idea of the **American Dream** (if you work hard you can achieve anything you want to). Instead our lives have a **predestined fate**.

The American Dream is shown to be impossible: **reality** defeats **idealism.** Lennie and George's dream of owning a farm and living off the "fatta the lan" symbolises this dream. For **poor migrant workers** during the **Depression**, the **American Dream** became an **illusion** and a **trap**.

The novella explores the human need for **companionship** and the tragedy of **loneliness.**

D: John Steinbeck

An **American** writer (1902-1968) who was born in Salinas, where the novella is set. As a teenager, he spent his summers working as a hired hand on neighbouring ranches, where his experiences of rural California and its people impressed him deeply. He often wrote stories as morals or **allegories**, that attempted **to criticise or consider the social problems presented by the Great Depression or struggles of particular groups that suffered segregation.**

E: Themes

Hopes and dreams, loneliness and companionship, brutality and dignity, man v. natural world, freedom and confinement, justice and injustice, power and powerlessness, prejudice: sexism, ageism, racism, migrant workers.

Symbols: setting of Soledad, the brush, the Gabilan mountains, sycamore tree, water, animals, light and dark, contents of the bunkhouse and Crook's room, the barn.

F: Spellings

1. Predetermined
2. Narrative
3. Foreshadowing
4. Microcosm
5. Predetermined
6. Misogyny
7. Predatory
8. Derogatory
9. Hierarchy
10. Idealism
11. Characterisation
12. Racism
13. Inequality
14. Prejudice
15. Allegory

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

SCIENCE – Biology

Enzymes and Digestion

A: Food groups

Nutrient	Why we need it
Water	Keeps cell hydrated
Fibre	Aid digestion
Carbohydrates	Proved glucose for respiration (releases energy)
Protein	Growth and repair
Fats	Protection, insulation and cell membranes
Vitamins and minerals	Help the immune system

In order to have a healthy diet it is important to have all the components needed to maintain health. This is called a balanced diet.

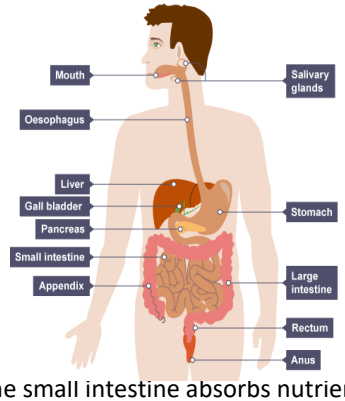
Consequences of not having a balanced diet include: deficiencies such as rickets and scurvy or being over-weight or under-weight

B: Food tests

CHEMICAL	TESTS FOR ...?	HOW TO CARRY OUT THE TEST	RESULT
	Starch	1.) Add the iodine solution directly to the substance to be tested (in solid or liquid form) and look for a colour change.	Turns blue black with starch
	Reducing Sugar	1.) Add Benedict's to the solution/ suspension to be tested. 2.) Heat for 2 mins in a water bath at boiling point and look for a colour change.	Turns brick red with reducing sugars (green/ yellow/ orange if less sugar present)
	Lipid (known as the Emulsion test)	1.) Add ethanol to the solution/ suspension to be tested and shake thoroughly. 2.) Then add water and look for a colour change.	Turns cloudy/ milky with lipid

CHEMICAL	TESTS FOR ...?	HOW TO CARRY OUT THE TEST	RESULT
	Protein	1.) Add Biuret's to the solution/ suspension to be tested and look for a colour change.	Turns purple with protein

C: The digestive system



The small intestine absorbs nutrients into the blood. The small intestine is adapted for this job as it has villi and microvilli for a big surface area

Organ	Function
mouth	Chews food (mechanical digestion)
oesophagus	Moves food to stomach
stomach	Digests food (churning = mechanical digestion)
small intestine	Digests and absorbs food
large intestine	Where water is reabsorbed
anus	Where waste is excreted
Pancreas (food doesn't pass through here)	Where enzymes are produced

D: Enzymes

Chemical digestion: When enzymes are used to break down food

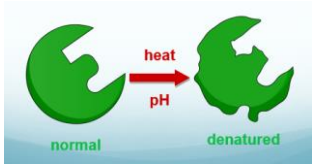
Enzymes are biological catalysts. They break down large food molecules into smaller ones.

Digestive enzyme	Site of production	Site of action
Amylase	Salivary glands, pancreas and small intestine wall	Mouth, small intestine
Protease	Stomach, pancreas, small intestine wall	Stomach, small intestine
Lipase	Pancreas, small intestine wall	Small intestine

E: Factors that Affect Enzymes

Enzymes require **optimum conditions** to work at their fastest.

- **Temperature**
  - Too cold, too slow
  - Too hot, the enzyme **denatures**
- **pH**
  - Too high or low, the enzyme **denatures**



F: Investigative Key Terms

Independent variable	The variable you change
Dependent variable	The variable you measure
Control variable	The variable you keep the same
Validity	Achieved by ensuring you have control variables

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

SCIENCE – Biology

Diet and Exercise

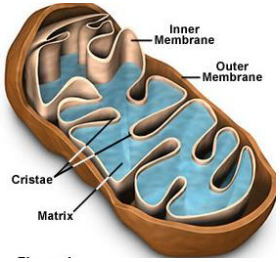
A: Balanced Diets

BMI = Body Mass Index
BMR = basal metabolic rate

Nutrient	Why we need it
Water	Keeps cell hydrated
Fibre	Aid digestion
Carbohydrates	Proved glucose for respiration (releases energy)
Protein	Growth and repair
Fats	Protection, insulation and cell membranes
Vitamins and minerals	Help the immune system

An unbalanced diet is not having enough of each nutrient.
Obesity = consuming more calories than the body needs

B: Respiration



Respiration happens in a part of the cell called the mitochondria.

Respiration releases energy from glucose.

Aerobic respiration occurs in the **presence** of oxygen

Glucose + oxygen → Carbon dioxide + water (+ energy)

$$C_6H_{12}O_6 + 6O_2 \rightarrow 6H_2O + 6CO_2$$

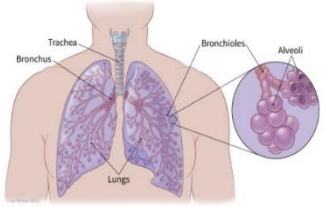
Anaerobic respiration occurs in the **absence** of oxygen

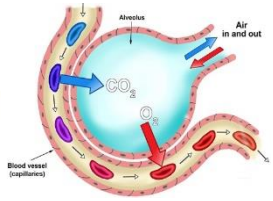
In animals: Glucose → Lactic acid (+ energy)

In **yeast** (fermentation): Glucose → ethanol + carbon dioxide

C: Inhalation and exhalation

The lungs are where gas exchange happens. Oxygen is breathed in and is absorbed into the blood stream and carbon dioxide produced in respiration is returned to the lungs where it is breathed out.





What happens in the body when we inhale	What happens in the body when we exhale
Ribcage moves **UP** and **OUT**	Ribcage moves **DOWN** and **IN**
The diaphragm **contacts** – it moves **down**	The diaphragm **relaxes** – it moves **up**
The **volume** inside your chest **increases**	The **volume** inside your chest **decreases**
The **pressure** inside your chest **decreases**	The **pressure** inside your chest **increases**
Air is drawn **into** the lungs	Air is forced **out of** the lungs

D: Metabolism

Metabolism: the sum of all the chemical reactions in the body.

Metabolism is affected by: age, gender, fitness levels

E: Response to Exercise

When we exercise we need more oxygen and glucose for respiration to supply our working muscles with energy. So our bodies have the following responses:

- Heart rate increases
- Breathing rate increases
- Blood vessels vasodilate

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

SCIENCE - Chemistry

Separating Mixtures

A: Pure and impure Substances

Pure substances are made from one type of particle. They have a known melting point.

Impure substances are made from more than one type of particle not chemically combined.

Mixtures can be separated so substances can be purified.

Substance can be separated using: Filtration, evaporation, distillation and chromatography.

C: Filtration

Used to separate an insoluble solid from a liquid

Filtrate: The liquid that passes through the filter

Residue: The solid that has not passed through the filter.

A mixture of an insoluble solid and liquid is added to a funnel containing filter paper. The liquid passes through the pores in the filter paper leaving behind the insoluble solid.

Filtration separates a liquid from a solid

B: Definitions

Solvent: A liquid that dissolves a solute

Solute: The solid being dissolved

Solution: A mixture of a solute dissolved in a solvent.

Soluble: A substance than can be dissolved in a particular solvent.

Insoluble: A substance that is unable to be dissolved in a particular solvent.

Solubility: The amount of solute that is able to dissolve. This depends on temperature, volume of solvent and type of solvent.

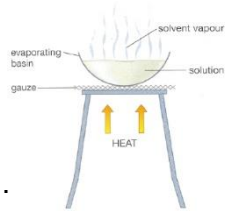
Saturated solution: The maximum amount of solute that will dissolve in a given volume of solvent at a set temperature.

D: Evaporation

Used to separate a soluble solid from a liquid It is dissolved in

Crystallisation is the formation of a soluble solid after the liquid has evaporated.

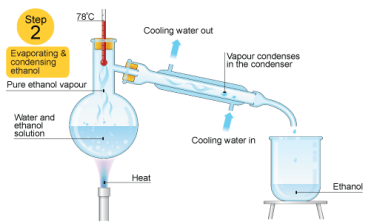
The liquid evaporates leaving the solid behind.



E: Distillation

To separate liquids with different boiling points

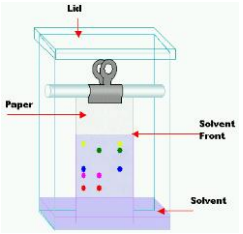
A mixture is heated, the liquid with the lowest boiling point evaporates and condenses first, leaving the second liquid behind



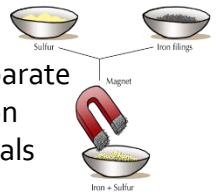
F: Chromatography

To separate mixtures of different chemicals.

A spot of a mixture is placed near the bottom of a piece of chromatography paper and the paper is placed in a solvent. As the solvent soaks up the paper it carries the mixture with it. Different components of the mixture will move at different rates as the mixture separates out.



Magnets can separate magnetic and non magnetic materials



YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

SCIENCE – Physics

Magnetism

A: Magnets

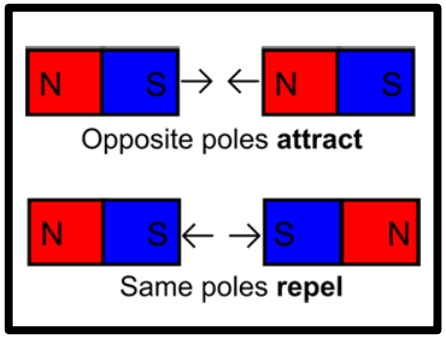
Magnets have a north and south pole.

The pole of the magnets is the place where the magnetic field is the strongest

If you bring two bar magnets together, there are two things that can happen, attraction and repulsion:

- if you bring a north pole and a south pole together, they attract and the magnets stick together
- if you bring two north poles together, or two south poles together, they repel and the magnets push each other away.

This is a non-contact force



B: Magnetism

Most materials are not magnetic, but some are. A magnetic material can be magnetised or will be attracted to a magnet.
These metals are magnetic: iron, cobalt, nickel and steel.
Steel is mostly iron, so steel is magnetic too.

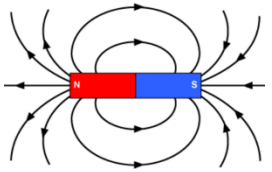
Permanent magnet: One which produces it's own magnetic field

Induced magnet: A material which becomes magnetic when placed in a magnetic field.
When taken out of a magnetic field it loses it's magnetism.

C: Magnetic Fields

The region around a magnet where a force acts on another magnet or a magnetic material.

- The magnetic field depends on the distance from the poles. The field is stronger at the poles.
- The magnetic field is in the direction a north pole would move at that point.
- Field lines point from North to South.

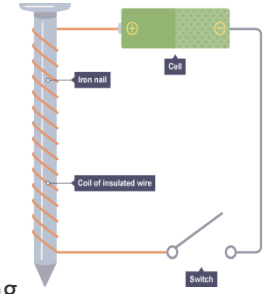


Magnetic field patterns of a bar magnet

E: Electromagnets-

When an electric current flows in a wire, it creates a magnetic field around the wire. This effect can be used to make an electromagnet.
You can make an electromagnet stronger by:

- wrapping the coil around a piece of iron
- adding more turns to the coil
- increasing the current flowing through the coil

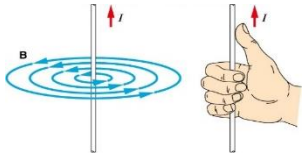


The Magnetic field can be turned on and off by turning off the current.

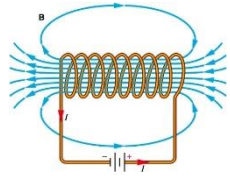
D: Solenoids

A coil of wire.

- The field strength can be increased by adding an iron core (electromagnet)
- The electric field can be stopped by turning off the current. .



Magnetic field pattern of a straight wire



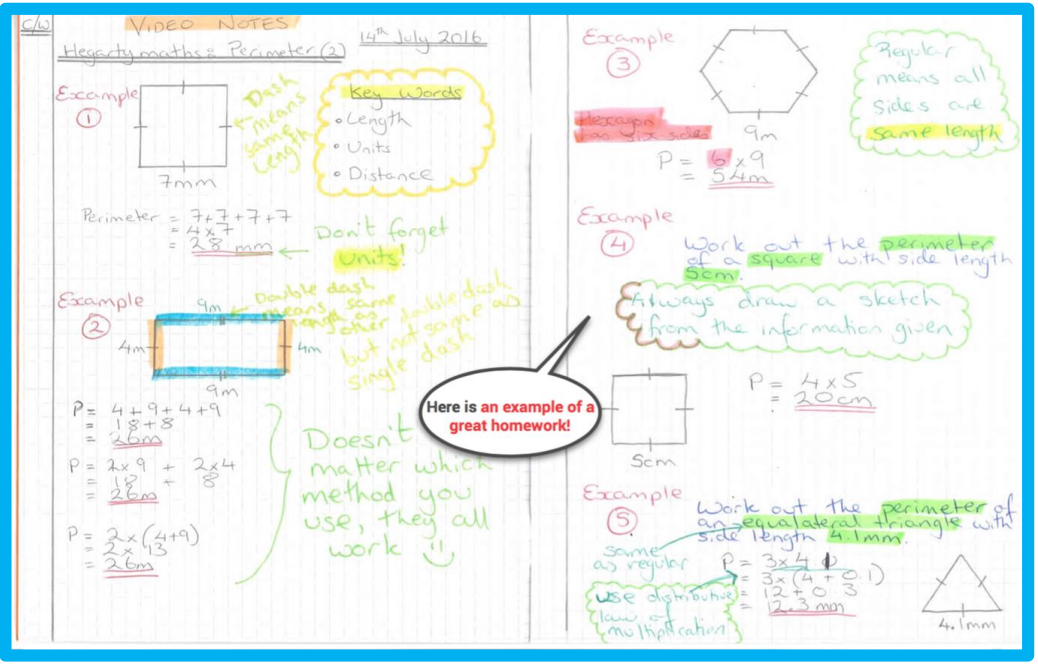
Magnetic field pattern of a solenoid

YEAR 8
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 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

SPANISH

Present Continuous

KO Quizlet link
https://quizlet.com/_5hw4qi

Soler + verb in the infinitive – I usually ...

To say you usually do something in Spanish you can use the verb *soler* plus the infinitive:

Suelo	levantarme a las siete. *I usually get up at seven o'clock.*
Sueles	ir en coche al colegio. *You (sing.) usually go to school by car.*
Suele	comer a la una en punto. *He/She usually eats at one o'clock on the dot.*
Solemos	hacer deporte los jueves. *We usually do sport on Thursdays.*
Soléis	ver la tele por la noche. *You (pl) usually watch TV in the evening.*
Suelen	visitar a sus abuelos los domingos. *They usually visit their grandparents on Sundays.*

- Verbs like *soler* are called radical or stem-changing verbs.
- Look at how and when *soler* changes. Can you remember other similar verbs that change in the same way?

1

The present continuous

- You use this tense to say what you **are doing** or to describe what **is happening**.
- English and Spanish use the present continuous in the same way. For example:
  What are you doing? *¿Qué estás hac**iendo**?*
  I am washing the dishes. *Estoy freg**ando** los platos.*
- What is the English equivalent of the Spanish *-ando* and *-iendo*?
- Can you make up a rule to guide you about how to form the present continuous?

Use the information below to help you.
Check it out on page 31.

estoy...	habl**ar**	com**er** / escrib**ir**
	habl- **ando**	com- **iendo** escrib- **iendo**

- Here are two more examples.
  El gato está **durmiendo** en la silla del abuelo.
  The cat is sleeping in Grandpa's chair.
  La abuela está **leyendo** su revista favorita.
  Grandma is reading her favourite magazine.
- What do you notice about *leyendo* and *durmiendo*? Have they followed the rule?

2

B *Estar*

Estar is used for temporary states, for moods and for location.

Mis abuelos están enfermos. My grandparents are ill.
Clara está muy ilusionada. Clara is very excited.
Madrid está en el centro de España. Madrid is in the centre of Spain.

estar – *to be*

estoy – *I am*	estamos – *we are*
estás – *you (s) are*	estáis – *you (pl) are*
está – *he/she/it is, you (formal) are*	están – *they/you (pl formal) are*

ser – *to be*
soy – *I am*
eres – *you (s) are*
es – *he/she/it is, you (formal) are*
somos – *we are*
sois – *you (pl) are*
son – *they/you (pl formal) are*

3

Me cae bien Miguel – ***I** get on well with Miguel.*
¿**Te** cae bien Miguel? – *Do **you** get on well with Miguel?*
Le cae bien su padre – ***She** gets on well with her father.*
Nos cae**n** bien Paco y Pedro – ***We** get on well with Paco and Pedro.*

4

The personal ***a*** has no real translation in English. You use it with certain verbs (*visitar, ayudar*) when talking about something you are doing with people but **not** things.

Voy a visitar **a** mis abuelos. *I'm going to visit my grandparents. (people)*

But:
Voy a visitar el museo. *I'm going to visit the museum. (thing)*

5

The imperfect tense

We use the imperfect to talk about something that carried on for a period of time in the past.

ser:	era	*it was*
haber:	había	*there was*

To say what you **have to do** or **must do** in Spanish you use:
tener que + infinitive
deber + infinitive

6

Tengo que recoger mis libros.
I have to tidy my books away.
Debo hacer mi cama. *I must make my bed.*

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

GEOGRAPHY

Africa

A: Key Words and Definitions

Africa	One of the seven continents.
Biome	A very large area with a similar climate throughout, and similar plants, and animals.
Country	Humans have divided continents into political units called countries.
Drought	There is less rain than usual, so there is not enough water for our needs.
Economic	About money and business.
Exploit	To make use of a place, or people, or things, for your own benefit.
Famine	When food is scarce; people may starve to death.
Fresh water	The water found in rivers, lakes, wells, and streams; it is not salty.
Grazing	Land with grass and other vegetation, where animals can feed.

B: Key Concepts

- Human and physical features of Africa
- The impacts of the crisis in Sudan
- The impacts of the Blood Diamond trade
- To explain what attempts have been put in place to reduce the impacts of the blood diamond trade
- Piracy – effects, distribution and responses
- Ebola – effects, distribution and responses
- Migration - effects, distribution and responses

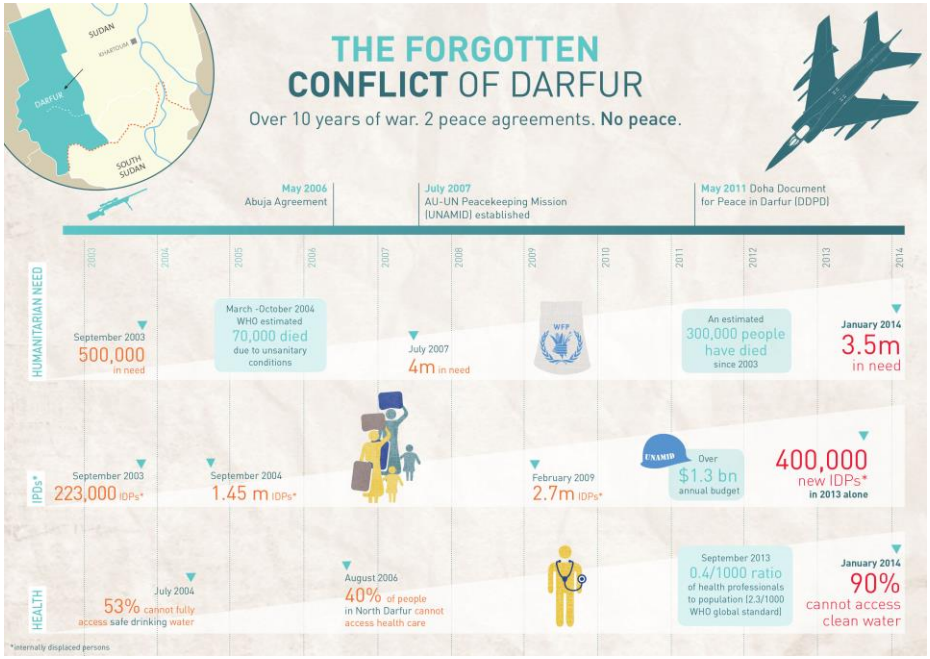
A: Key Words and Definitions

International	To do with more than one country.
Irrigate	To water crops.
Nomad	A person who rears animals, and travels with them to find grazing.
Population	The number of people living in a place.
Rainforest	Has lush vegetation, with many different species of plants and animals.
	The horn of Africa
Refugee	A person who has been forced to flee from danger, for example war.

Links to other topics in geography

- Coastal and river landscapes
- Tectonic landscapes
- Population
- Urbanisation
- Weather and climate

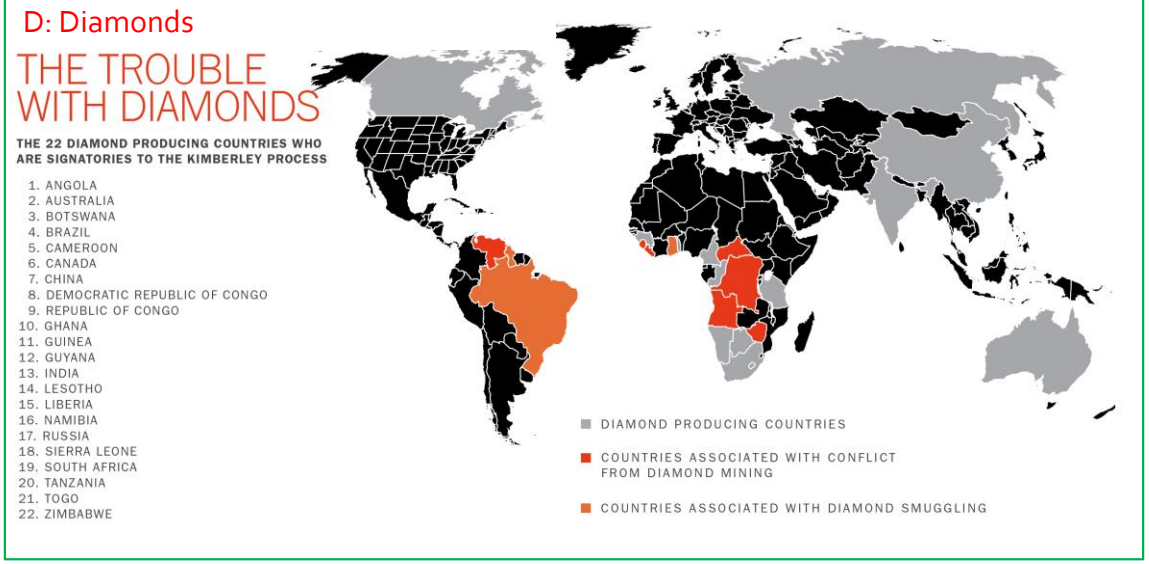
C: Darfur

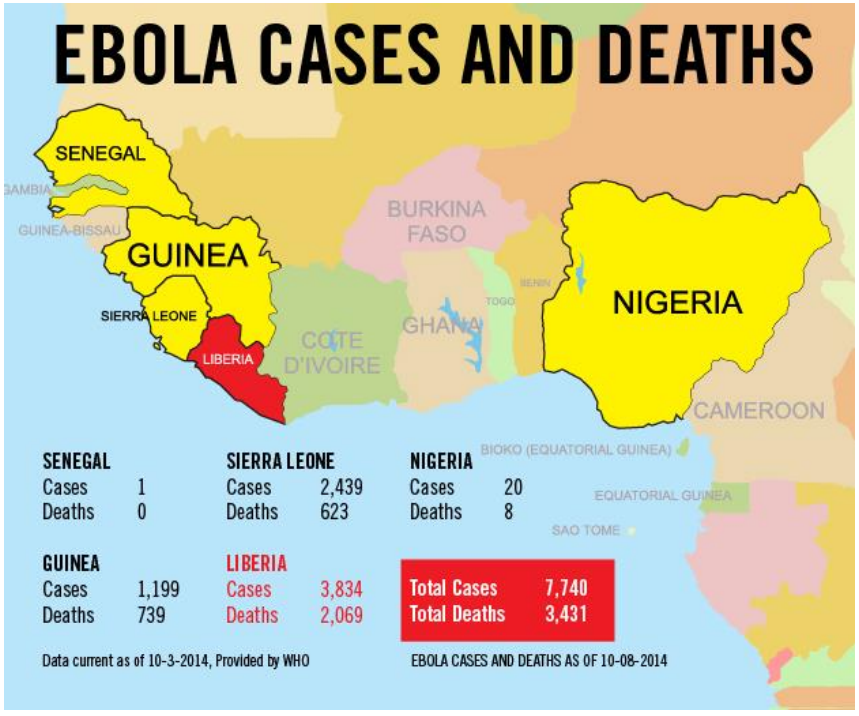


E: Ebola

PUSH		PULL
Persecution Violence War	→	Safety and Stability Freedom
Poor wages Lack of jobs	→	Higher wages Job prospects
Crop failure and famine Pollution Natural disaster	→	Food availability Better environment
Limited opportunities Lack of services Family separation	→	Family Reunification Better quality of life Availability of services

D: Diamonds





YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

HISTORY

Titanic

A: Who survived

Some 1,514 people were killed when the Titanic sank—and the death toll was highest in the lower classes. Each figure in this graph represents ten lives

First class
202 saved, 123 killed — survival rate: 62%

Second class
118 saved, 167 killed — survival rate: 41%

Third class
178 saved, 528 killed — survival rate: 25%

Crew
212 saved, 696 killed — survival rate: 23%

B: The Facts

Titanic was the biggest and most luxurious passenger ship of its time. It was 269 metres long, 28 metres wide and more than 53 meters tall, which is the same height as Nelson's Column in London and Belfast City Hall.

It had ten decks, three engines and its furnaces burnt through over 600 tonnes of coal. 175 'firemen' shovelled the coal by hand and worked in shifts 24 hours a day. Although Titanic had four funnels, only three were functional - the fourth one was just for show.

Titanic's full title was RMS Titanic as it was a Royal Mail ship carrying nearly 3500 sacks of mail including all sorts of letters and packages.

The launch of Titanic in May 1911 was the peak of Belfast's golden age of shipbuilding. Titanic was the largest man-made object ever to have taken to the seas.

Harland and Wolff employed thousands of men, with over 15,000 working on Titanic. Many jobs involved working with steel including welders, riveters, platers and plumbers. Carpenters worked with wood to design things like cabinets and staircases, while architects designed the ship in their offices.

Titanic's construction cost was £1.5 million, which is around £170 million in today's money. It took around three years to build. The wages of those on board varied greatly depending on position - Captain Smith earned £105 per month (about £11,000 today) whereas a stewardess earned £3 10 shillings per month (around £375 today).

There were 2200 people on board Titanic on its maiden voyage. 1300 passengers and 900 crew. The ship wasn't full and could have had another 1100 people on board.

Titanic was a luxurious ship and tickets were expensive. A third class ticket cost around £7 in 1912 which is nearly £800 in today's money. A second class ticket cost around £13 or nearly £1500 today and a first class ticket would have set you back a minimum of £30 or more than £3300 today.

Titanic was built in a graving or dry dock. This is a large enclosed dock with all of the water taken out so that workers can easily move around the outside of a ship. Harland and Wolff had three of them - Hamilton, Alexandra and Thompson. Thompson Dock was the largest and was designed to accommodate Titanic. You can still visit it today.

The architect of Titanic and its sister ships Olympic and Britannic was Alexander Carlisle. The designer was born in Ballymena and is generally thought to have been responsible for much of the internal design of the ships. Having retired in 1910, Thomas Andrews took over from Carlisle and died on board its maiden voyage.

Titanic carried over 2,200 people on its maiden voyage, but it was only half full when it set sail. People were travelling for lots of different reasons. Businessmen needed to make important deals, holidaymakers travelled for leisure and some people just wanted to experience life on board the world's biggest and most luxurious ship. A lot of families were travelling to make a better life for themselves in America.

At the time of Titanic's maiden voyage, it was common for full passenger lists of transatlantic ships to be published in the local newspapers. Many of the passengers saw it as something to be proud of, a bit like looking for your photo in the paper these days.

C: The Crew

In all, the crew of the Titanic comprised some 885 people:
Deck Crew - Officers, Masters at arms, Store masters and able-bodied seamen.
Engineering Department - Engineers, Boiler men, Firemen and Electricians.
Victualling Department - Stewards and Galley staff.
Restaurant staff
Musicians
Post Staff

Captain Edward John Smith – monthly wage £105

The maiden voyage of the Titanic was to be 62 year old Captain Smith's last voyage before he retired. Smith was married with a young daughter. Very little is known about his actions on the Titanic after the collision - he was last seen on the bridge of the sinking ship. Captain Smith went down with his ship and his body was never recovered.

Chief Officer Henry Wilde - monthly wage £25

Henry Wilde was serving as Chief Officer on the Olympic but was transferred to the Titanic for her maiden voyage. Wilde was off duty when the ship hit the iceberg. He took control of the even numbered lifeboats and was last seen trying to free the collapsible lifeboats. Wilde's body has never been recovered.

First Officer William Murdoch

William Murdoch, 39 years old, had served on a number of White Star ships. He joined the Titanic as first officer and was on the bridge at the time of the collision and gave the order to turn the ship. He helped to load women and children into the lifeboats. He did not survive the disaster and his body was not recovered.

Second Officer Charles Lightoller

Charles Lightoller had begun his sailing career at the age of 13 and had been involved in a shipwreck before. Lightoller was keen to load the lifeboats as quickly as possible and was still trying to free the collapsible lifeboats when Titanic sank. He was sucked under the sea but blown to the surface by air escaping from a vent. He managed to climb onto the overturned collapsible lifeboat B. He survived the disaster and as the most senior surviving officer testified at both inquiries.

Third Officer Herbert Pitman

Herbert Pitman was in his bunk when Titanic hit the iceberg. After helping to uncover lifeboats he was put in charge of lifeboat number 5 by William Murdoch. After Titanic had sunk, Pitman wanted to return for more passengers but others in the boat persuaded him that they would swamp the boat and they would all die. Pitman was called to give evidence during the inquiry into the disaster.

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

PHILOSOPHY AND ETHICS

What is equality?

A: Key terms and definitions

Discrimination	To act on your prejudice
Equality	To treat everyone equally
Genocide	Mass murder of a group of people
Holocaust	A mass murder during World War II in which Nazi Germany murdered approximately 6 million Jews
Homophobia	Hatred or fear of homosexuality
Islamophobia	Hatred or fear of Islam or Muslims
Prejudice	A belief or opinion about a person or a group before knowing anything about them.
Racism	Discrimination because of a person's race or country of origin
Stereotypes	Widely held image or idea of a particular type of person or thing

B: Case Studies

Holocaust: The Holocaust was the mass murder of six million Jews and millions of other people leading up to, and during, World War II.
The killings took place in Europe between 1933 and 1945. They were organised by the German Nazi party which was led by Adolf Hitler.
The largest group of victims were Jewish people. Nearly 7 out of every 10 Jews living in Europe were killed. Most of the victims were killed because they belonged to certain racial or religious groups which the Nazis wanted to wipe out. This kind of killing is called genocide.
The Nazis also murdered politicians, trade unionists, journalists, teachers and anyone else who spoke out against Hitler.

Stephen Lawrence: On the evening of April 22 1993, 18-year-old Stephen Lawrence was set upon by a group of white, racist youths as he waited at a bus stop in Eltham, south-east London. At first it seemed the young black man might survive. He managed to break free from his attackers and run a distance of some 222 metres. But then he collapsed bleeding from two fatal stab wounds. This case was extremely controversial partly because some of the killers have still not been brought to justice and because of the social and institutionalised racism.

Islamophobia: This prejudice leads to discrimination against Muslims. Many believe that events such as 9/11 have contributed greatly towards this. Also the media have been accused of not representing Islam fairly in the media. The Cardiff school of Journalism and Media Studies found that the most common adjectives used in relation to Islam in the media are radical, fanatical, fundamentalist, extremist and militant. This does not help build a realistic picture of Islam in Britain. In the Qur'an it teaches **"Fight in the path of God those who fight against you, but do not go beyond the limits. God does not love those who go beyond the limits"** therefore true Muslims could never be associated with acts of terror.

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

ART

Creative Drawing Project

There is no Knowledge Organiser for art this term as you will be completing a creative drawing project.
Further details of this will be given by your art teacher and this will be split into 3 chillies to help you complete the project through the term, please ensure you keep this sheet in your homework folder safely.
You should use the weekly slot for art in order to complete this project through the term.

Artists you may study in your project:

Laurie Breen

Dmitry Krasnopevtsev

Henri Matisse

Paul Cezanne

Carolee Clarke

Pamela M Johnson

Key Words you may use in your project:

colourful, bold, expressive, simple, composition, composed, contrast(ing), symmetrical, asymmetrical, texture, tone, pattern, bright, detailed, realistic, distorted, lively, subtle, muted, rough, smooth, pigment, mixed media, collage, form, line, flat, abstract, animated, brushstrokes, proportions, viewpoints, angle, everyday, photorealism, lifelike, naïve, childlike.

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

MUSIC

Blues

A: Blues History

- Blues started in the late 19th Century.
- Americans took people from Africa to America to work for them and turn them into slaves.
- The blues was a response to the slavery.
- The blues began in the fields where they would use call and response.
- The lyrics would always be about how they felt.
- Instruments would be made out of any materials they could find.

B: Blues Key Terms

Slave Trade - Selling a human being as a slave. The slaves who wrote blues were Africans sent to America
Work Songs – Songs that were sung whilst the slaves were forced to work
Call and Response - Repeating a lyric or a melody after first hearing it.
Improvisation – Composing on the spot whilst you are performing.
12 Bar Blues – A chord sequence used in Blues music using chords C, F and G.
Blues Scale – A scale used to create a blues melody.

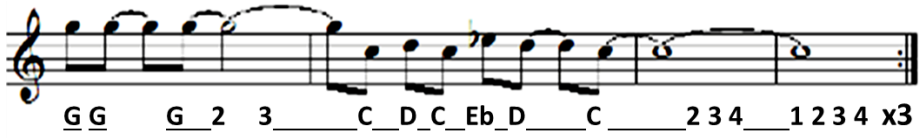
C: Making Blues Music

Step 1: Blues Lyrics
Use the structure AAB to write blues lyrics.
A is the same line
B is a different line but the last word rhymes with A.

Step 2: 12 Bar Blues
Chord sequence used in Blues.

C x 4	C x 4	C x 4	C x 4
F x 4	F x 4	C x 4	C x 4
G x 4	F x 4	C x 4	C x 4

Step 3: Blues Melody using the Blues scale.



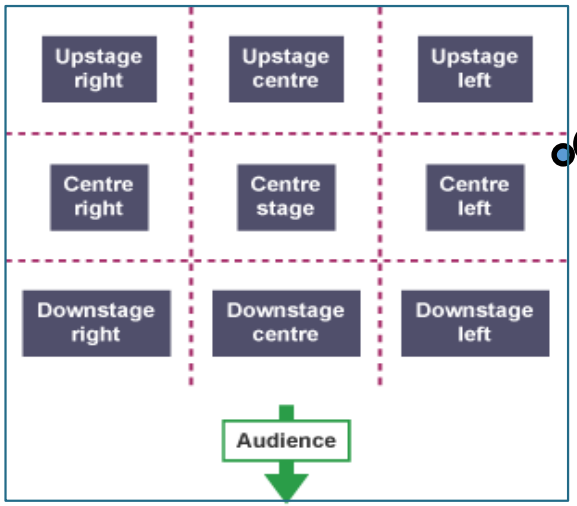
YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

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.

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

COMPUTER SCIENCE

The Internet and Networks

A: Definition of the Internet and a Network

Internet - a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols.

Network - A computer network is a group of computer systems and other computing hardware devices that are linked together

B: Different types of networks

C: Key terms and words to do with the Internet and networks

LAN – Local Area Network
WAN – Wide Area Network
Stand Alone PC – A SINGLE PC
Workstation – A computer that is connected up to a network
Servers – a computer or computer program which manages access to a centralized resource or service in a network
Routers – A router is a networking device that forwards data packets between computer networks
URL – Uniform Resource Locator – Name of the website
ISP – Internet service provider – Sky, Virgin, BT etc
IP – Internet Protocol - a unique string of numbers separated by full stops that identifies each computer using the Internet Protocol to communicate over a network

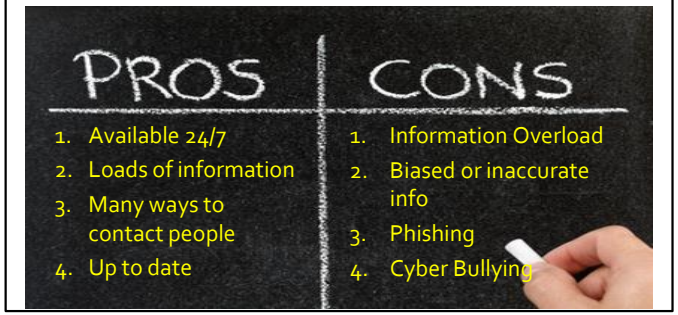
D: Memorisation

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 as part of your revision

E: Uses of the internet

- Homework
- Shopping
- Research
- Distance learning
- Sharing photos/videos
- Talking to friends
- Downloading music
- Downloading movies
- Playing games
- Chat rooms
- Reading/writing
- Job searching

F: Pros and Cons of the Internet



G: How an Internet request is processed

PC – Sends the request

ISP – Looks for the Website on a local or globaly DNS

DNS send it back to the ISP who sends it back to your PC

H: Stats about the Internet

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

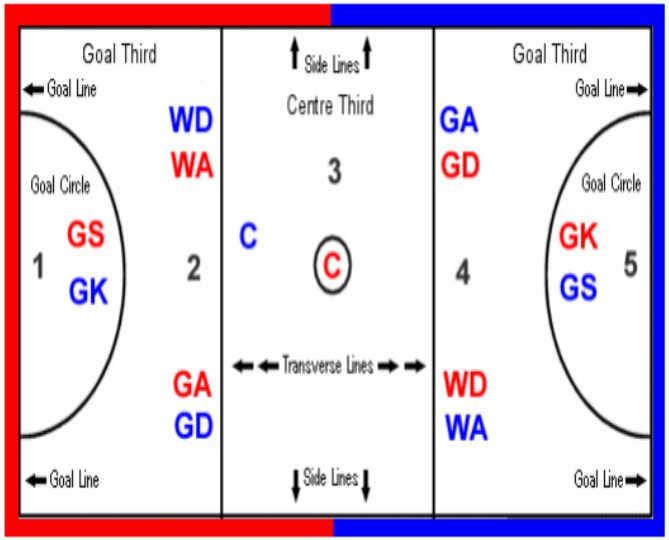
PE - Girls

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.

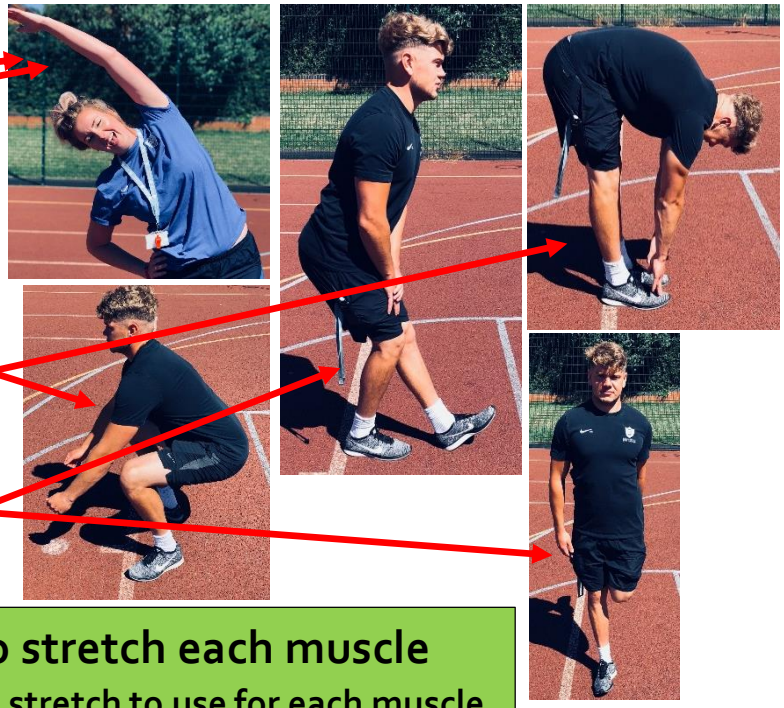
YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

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 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

DT – Miss Radford's Group

Food

A: Dietary Needs

People have different dietary needs that affect what they can and cannot eat.

Key words:
Allergy: an adverse reaction by the body to certain substances.
Intolerance: a condition that makes people avoid certain food because of the effects on their body.
Allergic reaction: the way someone responds to certain food. For example a rash, swelling and anaphylactic shock.

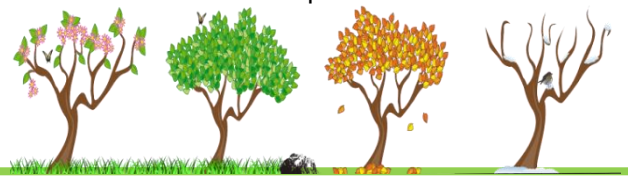
Vegan- Do not eat any animal products including meat, fish, eggs, cheese, milk and honey.

Vegetarian- Do not eat the meat of any animal but they do eat eggs, cheese, milk and honey.

Coeliac disease- An intolerance to gluten in food. Gluten is found in products such as bread, pasta and cakes.

B: Seasonality

Seasonal food is the time of year when food is at its best, in terms of flavour or harvest. Many foods are available all year, as they are imported from other countries. When local seasonal food is available it tends to be fresher and cheaper - there has been less travel/storage from farm to fork.



C: Food Around the World

In modern Britain, as in many countries around the world, people do not only eat their traditional cuisines. Travel abroad, immigration, the importation of foods from other countries and the ready availability of foods from different cuisines in shops and restaurants, means that many people eat foods and meals from different cuisines very regularly and incorporate these as part of their normal diets.

D: Religious Diets

Islam

- Meat must be halal
- Do not eat pork
- Do not drink alcohol
- Do not eat shellfish

Judaism

- Meat must be kosher
- Do not eat pork
- Dairy foods and meat must not be eaten together

Hinduism

- Many Hindu people are vegetarian
- Do not eat beef; the cow is seen as sacred

YEAR 8
HOMEWORK
KNOWLEDGE ORGANISER
Autumn Term 1

DT – Miss Cockayne's Group

Textiles

A: Fashion through the Decades

1950's

1960's

1970's

1980's

B: Decorative Techniques

Batik

Tie Dye

Stencils

Fabric Crayons

Mono Printing

Foam Printing

C: Key Terms

Fast Fashion - a term used by fashion retailers to describe inexpensive designs that move quickly from the catwalk to stores to meet new trends.

Up cycling- Up cycling is the process of converting old or discarded materials into something useful and often beautiful.

Design Brief- a written description of what a new product should do and who it is produced for.

Aesthetics – making your final product attractive

Design Brief

You have been asked to design and make a fabric bag to be sold at the V&A museum in London. Your bag will be sold as part of an exhibition on fashion through the decades. The bag must use key shapes and colours from your decade and should appeal to people who have visited the exhibition.


WORK
HARD
BE KIND