KNOWLEDGE ORGANISER

YEAR 9 – TERM 3

THOMAS HALL SCHOOL

Think Like An
Environmentalist

Community, Collaboration and Challenge

ATTENDANCE MATTERS

EVERY DAY COUNTS
Missing just 1 day every 2 weeks is the same as missing 10% of the school year.

LEARNING
Being in school allows you the best opportunity to learn.

WELLBEING
Attending school supports your mental and emotional health.

FUTURE SUCCESS
Regular attendonce at school is vitol for building the key skills needed for future employment

EQUIPMENT

SCHOOL DAY

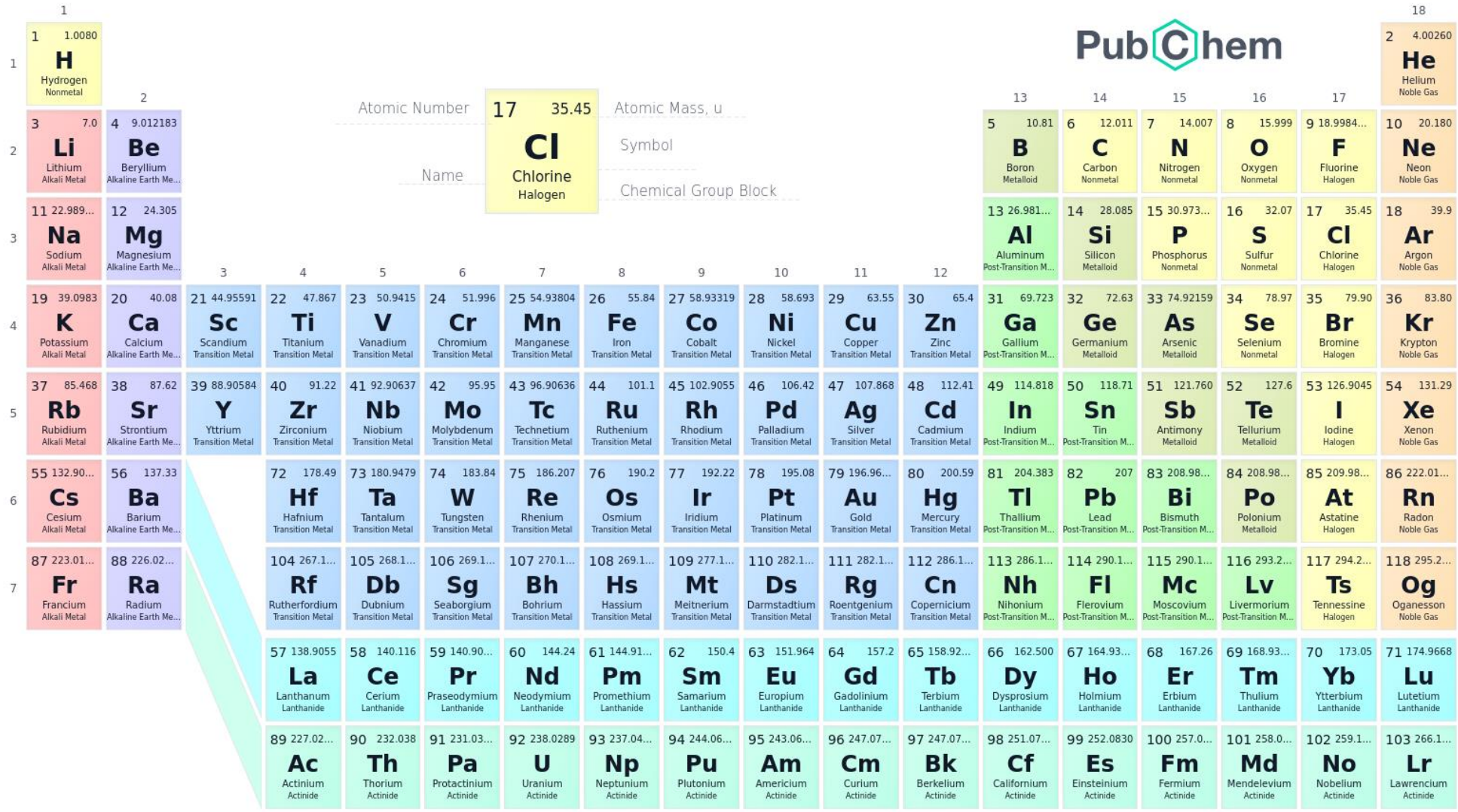
9:00–9:05	AM Reg
9:05–10:20	Lesson 1
10:20–11:35	Lesson 2
11:35–12:05	Break 1
12:05–13:20	Lesson 3
13:20–13:50	Break 2
13:50–15:05	Lesson 4
15:05–15:30	PM Reg – assembly or guided reading

Multiplication Grid

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

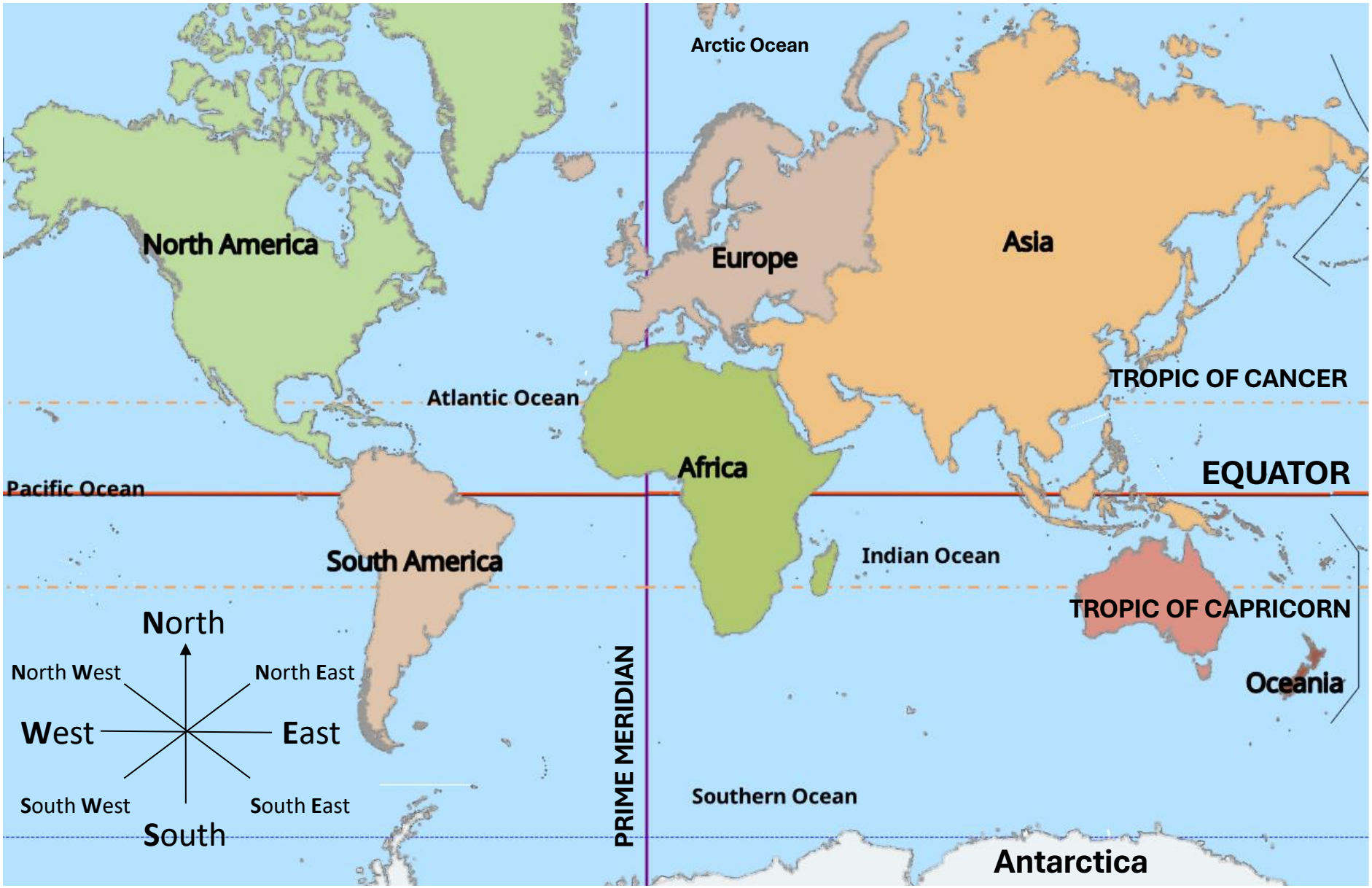
PERIODIC TABLE OF ELEMENTS

Chemical Group Block




01 Adjectives
THAT DESCRIBE:
age: young, old
colour: red, blue
condition: new, used
size: large, medium
speed: fast, slow
etc.
COMPARATIVE:
smaller, better...
SUPERLATIVE:
the smallest,
the worst,
the best...
02 Adverbs
PLACE:
here, there,
outside, everywhere,
upstairs, nowhere,
somewhere....
TIME:
ago, before, since,
yet, for, still,
afterwards...
FREQUENCY:
often, never,
sometimes, always
MANNER:
just, quite,
quickly, hardly,
well, carefully,
barely, almost,
scarcely,
beautifully...
03 Conjunctions
COORDINATING:
and, or, but,
yet, nor, for, so
CORRELATIVE:
both... and...,
either... or...,
just as... so...,
whether... or...,
neither... nor...,
not only... but also...
SUBORDINATING:
after, since, if,
while, although,
before, because,
unless
04 Determiners
TELLS US WHICH:
each, every,
some, none,
all...
TELLS US WHOSE:
my, your, her, his, its,
our, your, their (= possessive
adjectives or determiners)
05 Nouns
COMMON NOUNS: house, dog, laptop...
PROPER NOUNS:
(Capitalised)
London, Paris,
James, William,
Julia, Jennifer...
> VERBAL:
swimming...
> COLLECTIVE:
choir, jury...
> COMPOUND:
mother-in-law...
> COUNTABLE:
book, day...
> UNCOUNTABLE:
traffic, calm...
> ABSTRACT V. CONCRETE:
wit vs. road...
06 Prepositions
PLACE / DIRECTION:
in, at, on,
under, above,
across,
among,
between...
TIME:
in, at, on,
over, until, about,
during, before,
after, while,
through...
OTHER (agent,
phrase...):
by, with, on, over,
to, up, within,
beyond, for...
07 Pronouns
PERSONAL
(subject):
I, you, he, she, it,
we,
you, they
PERSONAL
(reflexive):
myself, yourself,
himself, herself,
itself, ourselves,
yourselves,
themselves
DEMONSTRATIVE:
this, these,
that, those
PERSONAL
(object):
me, you, him, her,
it, us, you, them
POSSESSIVE:
mine, yours, his,
hers, its, ours,
yours, theirs
INTERROGATIVE:
how, where,
when, which...?
INDEFINITE:
somebody,
anyone...
RELATIVE:
that, which,
whose, whom...
08 Verbs
ACTION:
to run, to organise,
to read, to think...
> Transitive
or
> Intransitive
LINKING:
to be,
to look, to appear,
to seem, to smell...
HELPING
(= AUXILIARY):
can, may,
will, must,
should, to be,
to have...
Word Classes

World Map


Arctic Ocean
North America
Europe
Asia
Atlantic Ocean
TROPIC OF CANCER
Africa
EQUATOR
Pacific Ocean
South America
Indian Ocean
TROPIC OF CAPRICORN
Oceania
North
North West
North East
West
East
South West
South East
South
PRIME MERIDIAN
Southern Ocean
Antarctica

Art

Year 9 Frida Kahlo Art Term 3

Overview & Objectives

- Understand Frida Kahlo's life and cultural background.
- Analyze key works and themes (identity, pain, duality, symbolism).
- Develop observational and imaginative drawing skills.

Week 1: Introduction to Frida Kahlo

- **Focus:** Life, influences, and context (Mexican culture, surrealism).
- **Activities:**
- Presentation on Kahlo's biography.
- Class discussion: What is identity in art?
- Sketchbook task: Timeline of Kahlo's life with images.
- Encourage self-expression andpersonal identity in art.
- Explore self-portraiture and mixedmedia.

Exploring Symbolism

- **Focus:** Understanding symbolism in Kahlo's work.
- **Activities:** Analyze works like *The Two Fridas*, *Self-Portrait with Thorn Necklace*.
- Group task: Identify symbols and meanings. Homework: Collect personal symbols/images.



Focus: Kahlo's use of background and symbolic imagery.

- **Activities:**
- Plan symbolic background for own portrait.
- Sketch thumbnail compositions.
- Begin detailed background design.
- Look at Kahlo's emotional expression inportraits.
- Students edit their self-portraits to showemotion/symbolism.



Colour & Painting Techniques

- **Focus:** Acrylic or watercolour painting(expressionist/symbolic colour).
- **Activities:**
- Practice painting small facial features orcolour swatches.
- Start applying colour to final portrait.


Refining & Detailing

- **Focus:** Finishing touches and refining work.
- **Activities:**
- Fine brushwork, clean edges, layers.
- Peer feedback and improvements.

Week 9: Written Analysis & Artist Statement

- **Focus:** Reflective writing and analysis.
- **Activities:**
- Write short evaluation of own work: What did I include and why?
- Compare own work to Kahlo's use of symbolism.

Computing

Iteration

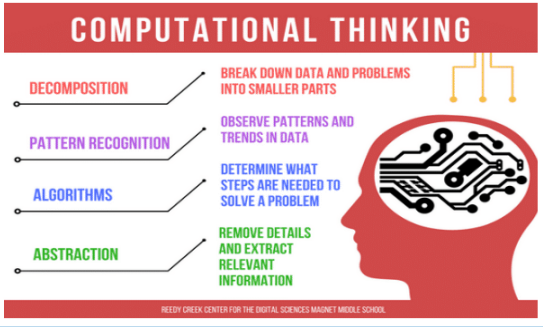
Algorithms consist of steps that are carried out (performed) one after another. Sometimes an **algorithm** needs to **repeat** certain steps until told to stop or until a particular condition has been met. ***Iteration is the process of repeating steps.***

Iteration allows us to **simplify** our **algorithm** by stating that we will **repeat** certain **steps** until told otherwise. **Iteration** is implemented in **programming** using **FOR** and **WHILE** statements.

There are **two** ways in which **programs** can **iterate** or **'loop'**:

- count-controlled loops
  - Sometimes it is necessary for **steps** to **iterate** a **specific number** of times.
- condition-controlled loops
  - **iteration** continues **while**, or **until**, a **condition** is met.

Each type of **loop** works in a slightly different way and produces different results.

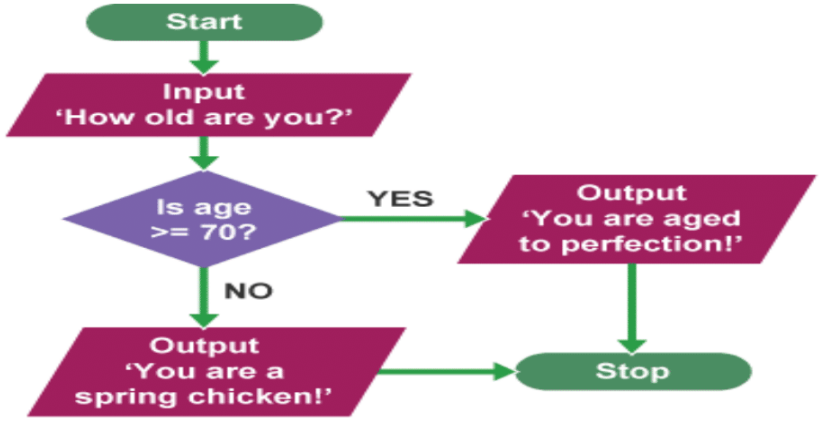


IF Statements

When designing **programs**, there are often points where a **decision** must be made. This **decision** is known as **selection** and is implemented in **programming** using **IF** statements. In **programming**, **selection** is usually represented by the statements **IF** and **ELSE**.
For **selection**, Python uses the statements **if** and **else** (note the lowercase **syntax** that **Python** uses):

Consider the age-related **algorithm** using **Python**. The steps are:

- Ask how old you are
- if you are 70 or older, say "You are aged to perfection!"
- else say "You are a spring chicken!"



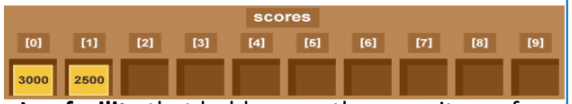
The above algorithm would be written in Python (3.x) as:

```
age = int(input("How old are you?"))

if age >= 70:

        print("You are aged to perfection!")

else:

        print("You are a spring chicken!")
```

Arrays

An **array** is a series of **memory** locations – or **'boxes'** – each of which holds a single item of **data**, but with each box sharing the same name. All **data** in an **array** must be of the same **data type**.

Arrays are named like **variables**. The number in brackets determines how many **data** items the **array** can hold. The array **score(9)** would allow ten data items to be stored.



Any **facility** that holds more than one item of **data** is known as a **data structure**. Therefore, an **array** is a **data structure**.

Lists are **data structures** similar to **arrays** that allow **data** of more than one **data type**.

Functions

A **function** is also a small section of a **program** that performs a specific task that can be used repeatedly throughout a **program**, but the task is usually a **calculation**. **Functions** perform the task and return a value to the main **program**.

Every **function** needs:

1. A name
2. The values that it needs to use for calculation
3. The **program** code to perform the task
4. A value to return to the main program

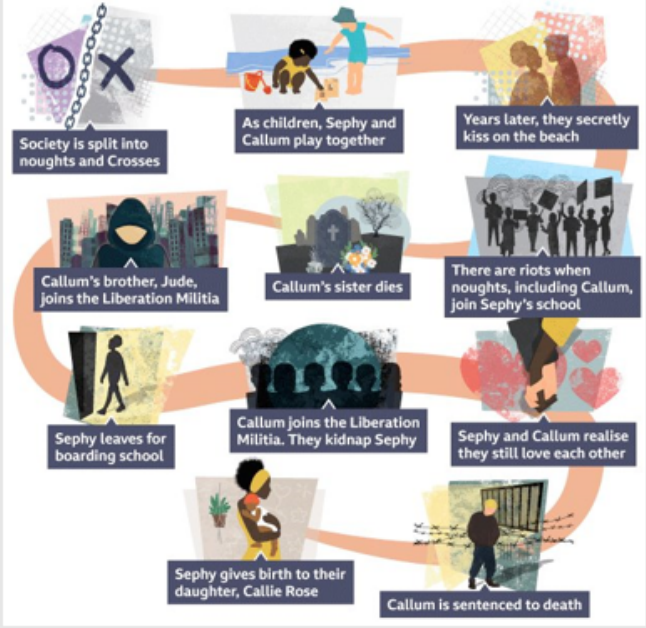
Drama

Year 9 Drama Term 3

Plot

Noughts & Crosses tells the story of Sephy and Callum, two young people from different races who fall in love and face prejudice, terrorism, and injustice.

The play takes place in a world similar to our own, but with a large divide between the ruling class, the Crosses, and the underclass, the noughts. The Crosses are dark-skinned and privileged, while the noughts are light-skinned and poor.



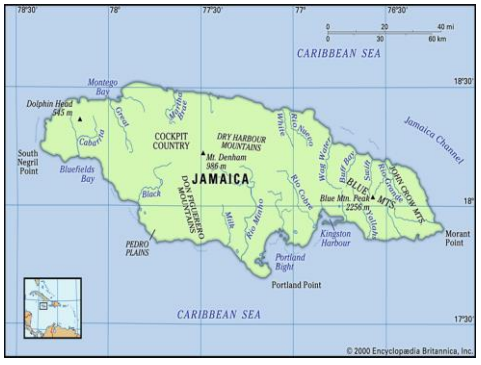
Terminology

Proxemics - the deliberate use of space, distance, and positioning between actors on stage to communicate unspoken information about their relationships, status, emotions, and the situation to the audience.
Semiotics - the study of how signs and symbols create meaning in theatre and performance.
Conscience Alley - a character facing a dilemma walks down an "alley" formed by two lines of people, who present opposing viewpoints (e.g., "do it" vs. "don't do it") to influence their decision.

Characters

Sephy - a privileged, dark-skinned Cross.
Callum - a poor, light-skinned Nought.
Kamal - a powerful, wealthy politician and Sephy's father.
Jasmine - Sephy's mother
Minerva - Sephy's sister
Meggie - Callum's mother
Ryan - Callum's father
Jude - Callum's brother
Lynette - Callum's sister
Mr Corsa - Headmaster at Heathcroft School
Shania - a Nought girl who attends Heathcroft School

English



Jamaica

A small island in the Carridean group of islands that was the long-time property of the British Empire. It was predominantly a slave colony.

Tier 2 Vocabulary

Colonisation – The act of claiming previously unclaimed land and settling there.
Slave – A person who is owned and sold.
Hurricane – A tropical storm that is caused by heating oceans on the equator and is very destructive.
Evangelist – Someone who is on a mission to convert others to their faith. Very religious and proper!
Principle – A fundamental truth that supports a whole system of belief.
Blasphemy – A statement that goes against the teachings of God and the church.
Consternation – Worried or made uncomfortable.
Morality – The code to live by in order to be a good person.

Tier 3 Vocabulary

Social historical context – The study of what influenced the writer in the historical and social setting they were writing in or about.
Culture – All the things that give our society spirits (art, education, entertainment, sport, the words we speak and the clothes we wear etc.).
Irony – Irony can be when one person understands something another does not or when someone says something opposite to what they mean for humorous effect.
Soliloquy/aside/fourth wall break – These are techniques in plays that are used to talk directly to the audience.
Characterisation – A character's journey and evolution in a play or novel.
Flashback – A flashback is a way to depict a character recalling something from their past.
Staging – The choices the director makes in how to set up the stage.
Lighting – The way the stage is lit can control what we can see or what we focus on.
Time shift – Time moves on with variously sized gaps, so only important moments are covered.
Gender expectations – The different ways we are treated and different things we are expected to do based on our sex.
Class – The different way of life people live based on their family of birth and their wealth.

Empire Windrush

Famously, the ship that transported many Jamaicans to England to keep our economy going.

World War 2

The second world war was even worse than the first for loss of life. Regular use of planes and bombing was especially damaging.

English

1930s British Woman

In the 1930s, women were expected to fulfil their traditional roles of house-wife and mother. They had more freedoms than previously but were still reliant on their fathers or their husbands to live comfortably and safely.

Post World War Two British Woman

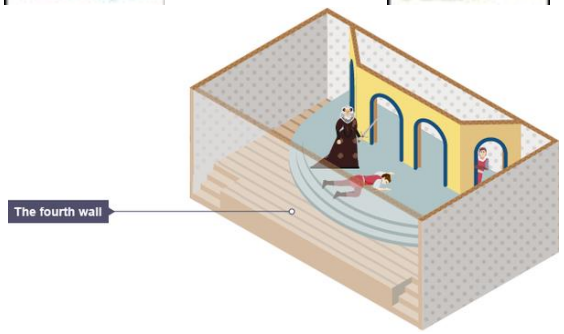
World war two led to an increased need for labour both during and after the conflict. Women stepped up and this led to an increased demand for more equal rights and a fair say in how things were run.

Hortense

Queenie

Gilbert

Bernard



Small Island - Summary

Opening

The play opens in Jamaica - 1939. Hortense prepares for the arrival of a hurricane and tells her story. The hurricane hits. Michael appears, shoving Hortense out of the way and rushing to passionately kiss Mrs Ryder.

Middle

We then move to England – 1941. Queenie rents out rooms in Bernard's house to soldiers. There is an instant attraction between Queenie and Michael. Hortense says she will lend Gilbert the money for the passage to England, if he marries her and sends for her once he has a place to live in England.

End

The play ends in London- 1948. Gilbert and Hortense are discriminated against by colleagues, neighbours and Bernard. Queenie gives birth to Michael's baby. Queenie hands her baby to Hortense and Gilbert. They promise they will be proud of the child and he will be loved.

The Fourth Wall

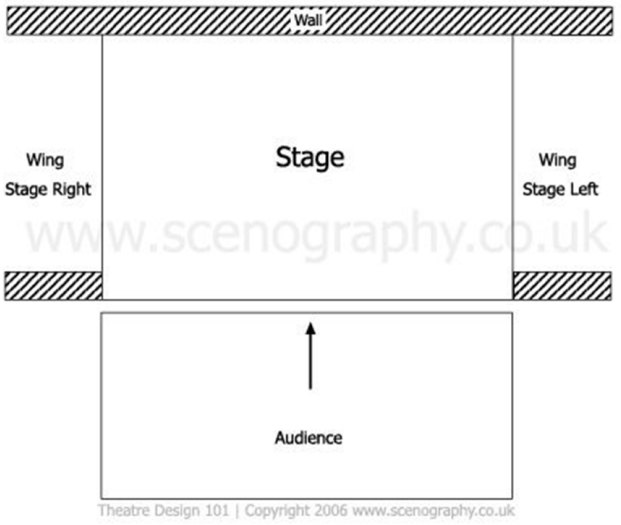
A dramatic tool where the characters speak directly to the audience, breaking the illusion that they are in a different place or time.

Lighting

A dramatic tool that can change the mood , reveal parts of the stage while hiding others and create clear changes to the setting that differentiate where or when events are taking place.

Props

A dramatic tool to show what objects are in a particular setting. This can be realistic or more conceptual (the audience might have to use their imaginations a bit).



French

Module 3- A loisir

On va au cinéma

Tu viens au cinéma? Are you coming to the cinema?	Ça dépend. Qu'est-ce que tu vas voir? It depends. What are you going to see? Bonne idée! Je veux bien Good idea! I'd like to	Je vais regarder I'm going to watch	une comédie – a comedy un film d'animation – an animated film un film romantique – a romantic film un film d'action – an action film un film d'horreur – a horror film un film de science-fiction – a sci-fi film un film de superhéros – a superhero film	Rendez-vous où et à quelle heure? Where and when shall we met?	chez moi/toi at my house/your house A 19h – at 7pm A plus – See you later A demain – See you tomorrow A samedi – See you Saturday
	je n'ai pas envie - I don't want to tu rigoles? - are you joking? désolé(e) je ne peux pas ce soir - sorry I can't tonight				
Je peux vous aider? Can I help you?	Je voudrais trois billets pour deux adultes et un enfant – I'd like 3 tickets for 2 adults and a child Ça fait combien? – How much is it? C'est quelle salle? – Which screen?				

Normalement, hier et demain

Normalement – Normally	je vais au cinéma – I go to the cinema j'écoute de la musique – I listen to music je lis des BD – I read comics nous jouons en ligne – we play online
Le weekend dernier – Last weekend	je suis allé(e) ... I went j'ai choisi – I chose j'ai visité – I visited
Le weekend prochain – Next weekend	je vais aller – I'm going to go je vais visiter _I'm going to visit on va prendre – we are going to take

Ma célébrité

Ma célébrité préférée est.. My favourite celebrity is.....	Il/Elle a beaucoup de talent He/She has lots of talent	
il / elle est he / she is	Il/Elle fait beaucoup de choses pour les bonnes causes He/She does a lot for charity	
C'est mon chanteur/euse préféré(e) He/She is my favourite singer	parce qu'ils/elles sont because they are	ridicules – ridiculous divertissant(e)s – entertaining intéressant(e)s – interesting passionnant(e)s – exciting plein(e)s d'action – full of action ennuyeux/euse – boring nuls/nuls – rubbish marrant(e)s – funny bêtes – stupid
C'est un(e) de mes acteurs/actrices préféré(e)s – He/She is one of my favourite actors/actresses		

French

GRAMMAIRE
Regular present tense verbs

ER VERBS e.g. Passer = to spend (time)	
Je pass**e**	*I spend*
Tu pass**es**	*You spend*
Il/Elle/On pass**e**	*He/She/One spends*
Nous pass**ons**	*We spend*
Vous pass**ez**	*You spend (form/pl)*
Ils/Elles pass**ent**	*They spend*

IR VERBS e.g. Finir = finish	
Je fini**s**	*I finish*
Tu fini**s**	*You finish*
Il/Elle/On fini**t**	*He/She/One finishes*
Nous fin**issons**	*We finish*
Vous fin**issez**	*You finish (form/pl)*
Ils/Elles fin**issent**	*They finish*

RE VERBS e.g. vendre = to sell	
Je vend**s**	*I sell*
Tu vend**s**	*You sell*
Il/Elle/On vend	*He/She/One sells*
Nous vend**ons**	*We sell*
Vous vend**ez**	*You sell (form/pl)*
Ils/Elles vend**ent**	*They sell*

GRAMMAIRE Irregular present tense verbs

Faire = to do / to make	
Je fais	*I do*
Tu fais	*You do*
Il/Elle/On fait	*He/She/One does*
Nous faisons	*We do*
Vous faites	*You do (form/pl)*
Ils/Elles font	*They do*

Aller = to go	
Je vais	*I go*
Tu vas	*You go*
Il/Elle/On va	*He/She/One goes*
Nous allons	*We go*
Vous allez	*You go (form/pl)*
Ils/Elles vont	*They go*

GRAMMAIRE Modal verbs

Vouloir = to want	
Je veux	*I want*
Tu veux	*You want*
Il/Elle/On veut	*He/She/One wants*
Nous voulons	*We want*
Vous voulez	*You want (form/pl)*
Ils/Elles veulent	*They want*

Pouvoir = to be able to	
Je peux	*I can*
Tu peux	*You can*
Il/Elle/On peut	*He/She/One can*
Nous pouvons	*We can*
Vous pouvez	*You can (for/pl)*
Ils/Elles peuvent	*They can*

Grammar

Aujourd'hui	*Today*
Demain (soir)	*Tomorrow (night)*
Ce matin / ce soir	*This morning/evening*
Cet après-midi	*This afternoon*
La semaine prochaine	*Next week*

⭐ **S'il fait beau**
If the weather's nice

⭐ **S'il fait mauvais**
If the weather's bad

⭐ **Si j'ai assez d'argent** *If I have enough money*

Ça va être...
It's going to be

cool / génial / sympa
cool / great / nice

Qu'est-ce qu'on va faire? ***What are we going to do?***

Near Future Tense = Aller + infintive (going to do)

Je vais
I am going

On va / **Nous allons**
We are going

Use the present tense of the verb ALLER from above ↗

aller au parc	*to go to the park*
visiter le musée	*to visit the museum*
manger au resto	*to eat at a restaurant*
acheter un jeu vidéo	*to buy a videogame*
voir un spectacle	*to see a show*
faire les magasins	*to go shopping*
prendre le bus	*to take the bus*

French

Point de départ (pages 56–57)

Sur la photo, il y a un groupe pop.	*In the photo, there is a pop group.*
À gauche/droite, il y a …	*On the left/right, there is …*
une fille qui chante.	*a girl who is singing.*
un garçon qui porte …	*a boy who is wearing …*
Il/Elle a les cheveux …	*He/She has … hair.*
Derrière lui/elle	*Behind him/her*
Il/Elle joue …	*He/She is playing …*
du violon / du piano.	*the violin / the piano.*
de la batterie.	*the drums.*
de la clarinette.	*the clarinet.*
de la flûte.	*the flute.*
de la guitare.	*the guitar.*
de la trompette.	*the trumpet.*
du jazz / du R'n'B.	*jazz. / R'n'B.*
de la musique classique.	*classical music.*
du hip-hop / du rap.	*hip-hop. / rap music.*
du hard rock.	*hard rock.*
de la techno.	*techno music.*
Comment tu trouves …	*What do you think of …*
le chanteur/la chanteuse?	*the singer?*
la mélodie?	*the melody?*
les paroles?	*the lyrics?*
le rythme?	*the rhythm?*
les musiciens?	*the musicians?*
la chanson en général?	*the song in general?*
Je le/la/les trouve …	*I find it/them …*
démodé(s/e/es).	*old-fashioned.*
original/originaux/originale(s).	*original.*
ennuyeux/ennuyeuse(s).	*boring.*
bon(s)/bonne(s).	*good.*
bête(s).	*stupid.*
Qu'est-ce que tu aimes comme musique?	*What sort of music do you like?*
J'aime toutes sortes de musique.	*I like all sorts of music.*
J'écoute souvent du hip-hop.	*I often listen to hip-hop.*
Ça me donne envie de danser.	*It makes me want to dance.*
Ça me rend heureux/heureuse.	*It makes me happy.*
Sa musique est inspirante.	*His/Her music is inspiring.*
Est-ce que tu joues d'un instrument?	*Do you play an instrument?*
Je ne joue pas d'un instrument.	*I don't play an instrument.*
Je joue de la flûte.	*I play the flute.*

Unité 1 (pages 58–59) *Tu étais comment?*

Tu étais comment?	*What were you like?*
Quand j'étais petit(e) …	*When I was younger …*
j'avais (les cheveux frisés).	*I used to have (very curly hair).*
j'étais sage / méchant(e).	*I used to be good / naughty.*
timide / mignon(ne).	*shy / cute.*
je n'étais pas très sage.	*I didn't use to be very well behaved.*
Qu'est-ce que tu portais?	*What did you wear?*
Je portais (un sweat jaune).	*I used to wear (a yellow sweatshirt).*
Qu'est-ce que tu faisais à l'école?	*What did you do at school?*
Qu'est-ce que tu faisais à la maison?	*What did you do at home?*
Je jouais …	*I used to play …*
Je faisais …	*I used to do …*
J'allais …	*I used to go …*
Je lisais …	*I used to read …*
Je restais (dans ma chambre).	*I used to stay (in my bedroom).*
Qu'est-ce que tu aimais?	*What did you like?*
J'aimais (le chocolat).	*I used to like (chocolate).*
Cependant, je n'aimais pas (le poisson).	*However, I didn't use to like (fish).*

Unité 2 (pages 60–61) *Ton école primaire était comment?*

Ton école primaire était comment?	*What was your primary school like?*
Mon école primaire était …	*My primary school was …*
grande / petite.	*big / small.*
de taille moyenne.	*middle-sized.*
Le bâtiment était …	*The building was …*
moderne / vieux.	*modern / old.*
beau / laid.	*beautiful / ugly.*
Il y avait combien d'élèves?	*How many pupils were there?*
Il y avait trois cents élèves.	*There were 300 pupils.*

Unité 2 (pages 60–61) *Ton école primaire était comment?*

Ton instituteur était comment?	*What was your primary school teacher like?*
Il/Elle était …	*He/She was …*
drôle / gentil(le).	*funny / kind.*
sévère / impatient(e).	*strict / impatient.*
patient(e) / sympa.	*patient / nice.*
Qu'est-ce que tu étudiais?	*What did you study?*
J'étudiais l'anglais.	*I studied English.*
Quelle était ta matière préférée?	*What was your favourite subject?*
Ma matière préférée, c'était le français.	*My favourite subject was French.*
J'adorais lire.	*I loved to read.*
Tu étais heureux/heureuse à l'école?	*Were you happy at school?*
J'étais heureux/heureuse …	*I was happy …*
J'aimais … / J'adorais …	*I liked … / I loved …*
Je détestais …	*I hated …*
Je préférais mon école primaire.	*I preferred my primary school.*
Je préfère le collège.	*I prefer secondary school.*
Les activités extrascolaires du collège sont plus amusantes.	*The extra-curricular activities at secondary school are more fun.*
Mon instituteur était moins sérieux que mes profs au collège.	*My primary school teacher was less serious than my teachers at secondary school.*
La journée scolaire est trop longue!	*The school day is too long!*
Les repas de la cantine sont meilleurs.	*The meals at the canteen are better.*
L'emploi du temps est plus chargé.	*The timetable is fuller.*
Les cours sont plus stimulants.	*The lessons are more stimulating.*

Unité 3 (pages 62–63) *Autrefois … aujourd'hui …*

il y a (six) ans	*(six) years ago*
Pour écouter de la musique, …	*To listen to music, …*
on achetait des CD.	*people used to buy CDs.*
on allait à un concert.	*people used to go to a concert.*
on utilisait Spotify.	*people used to use Spotify.*
Écouter de la musique à la radio était …	*Listening to music on the radio was …*
plus populaire.	*more popular.*
Pour écouter de la musique aujourd'hui, …	*To listen to music today, …*
on utilise un gramophone.	*people use a gramophone.*
on achète des cassettes audio.	*people buy audio cassettes.*
on écoute en streaming.	*people listen by streaming.*
Aujourd'hui, les jeunes Français écoutent …	*Today, young French people listen to …*
toutes sortes de musique.	*all sorts of music.*
de la musique rap.	*rap music.*

Unité 4 (pages 64–65) *De jeunes réfugiés*

Où est-ce que tu es né(e)?	*Where were you born?*
Je suis né(e) en / au …	*I was born in …*
J'habite maintenant en / au …	*Now I live in …*
Où est-ce que tu habitais?	*Where did you live?*
J'habitais …	*I lived …*
Maintenant, j'habite …	*Now I live …*
Pourquoi est-ce que tu as quitté (le Soudan)?	*Why did you leave (Sudan)?*
Nous avons quitté le Soudan à cause de …	*We left Sudan because of …*
la guerre.	*war.*
la pauvreté.	*poverty.*
la famine.	*famine.*
la persécution.	*persecution.*
Quand est-ce que tu as immigré en France?	*When did you immigrate to France?*
J'ai immigré en France il y a quatre ans.	*I immigrated to France four years ago.*
Qu'est-ce que tu fais maintenant?	*What do you do now?*
Je vais au collège.	*I go to school.*
Qu'est-ce que tu veux faire, à l'avenir?	*What do you want to do in the future?*
Je veux être (professeur).	*I want to be (a teacher).*
Je veux devenir infirmier/infirmière.	*I want to become a nurse.*

French

Don't forget to refer to THREE time frames...

Present

Time phrases...

normalement - normally
quelquefois - sometimes
parfois - sometimes
d'habitude - usually
de temps en temps - from time to time
tous les jours - every day
toujours - always
souvent - often
en général - in general
généralement - for the most part
la plupart du temps - most of the time
maintenant - now

I		HE/SHE/WE
Je vais	I go	Il/elle/on va
Je fais	I do/make	Il/elle/on fait
Je joue	I play	Il/elle/on joue
Je travaille	I work	Il/elle/on travaille
Je mange	I eat	Il/elle/on mange
Je bois	I drink	Il/elle/on boit
Je finis	I finish	Il/elle/on finit
Je prends	I take	Il/elle/on prend
Je voyage	I travel	Il/elle/on voyage
Je sors	I go out	Il/elle/on sort
Je dors	I sleep	Il/elle/on dort
Je parle	I talk	Il/elle/on parle
Je peux	I can	Il/elle/on peut
Je lis	I read	Il/elle/on lit

Score 5 Checklist:

- ✓ *ALL bullet points of task covered*
- ✓ *At least 2 opinions with a reason*
- ✓ *Past tense used*
- ✓ *Present tense used*
- ✓ *Future tense used*
- ✓ *Talk about self and at least 1 other person*
- ✓ *Connective used*
- ✓ *Adjective used*
- ✓ *DIFFERENT adjective to last used*
- ✓ *Adverb used*
- ✓ *Intensifier used*
- ✓ *Interesting vocabulary used*

Past

Time phrases...

l'année dernière - last year
récemment - recently
l'autre jour - the other day
la semaine dernière - last week
hier – yesterday
L'été dernier – last Summer
le weekend dernier - last weekend
il y a deux ans - ... 2 years ago
Il y a une semaine – a week ago
Pendant les grandes vacances – in the Summer holidays

I		HE/SHE/WE
Je suis allé(e)	I went	Il/elle/on est allé(e)
J'ai fait	I did	Il/elle/on a fait
J'ai joué	I played	Il/elle/on a joué
J'ai travaillé	I worked	Il/elle/on a travaillé
J'ai mangé	I ate	Il/elle/on a mangé
J'ai bu	I drank	Il/elle/on a bu
J'ai fini	I finished	Il/elle/on a fini
J'ai pris	I took	Il/elle/on a pris
J'ai voyagé	I travelled	Il/elle/on a voyagé
Je suis sorti(e)	I went out	Il/elle/on est sorti(e)
J'ai dormi	I slept	Il/elle/on a dormi
J'ai parlé	I talked	Il/elle/on a parlé
J'ai pu	I was able	Il/elle/on a pu
J'ai lu	I read	Il/elle/on a lu

Opinions - past tense

j'ai bien aimé - I liked
j'ai beaucoup aimé - I really liked
je n'ai pas beaucoup aimé - I didn't really like
j'ai détesté - I hated
ça m'a beaucoup plu - I really liked it

Giving reasons - past tense

j'ai pensé que - I thought that
j'ai trouvé que - I thought that
j'étais de l'opinion que - I was of the opinion that
j'étais d'accord que - I agreed that
je n'étais pas d'accord que - I didn't agree that
c'était - it was
ce n'était pas - it wasn't

Future

Time phrases...

demain - tomorrow
la semaine prochaine - next week
le weekend prochain - next weekend
l'année prochaine - next year
après les examens - after exams
après avoir quitté le collège - after leaving school
à l'avenir - in the future
dans mes rêves - in my dreams
l'été prochain - next Summer

Points to note:

- content
- quality
- needs detail
- opinions
- complexity
- time frames.

I		HE/SHE/WE
Je vais aller	I will go	Il/elle/on va aller
Je vais faire	I will do/make	Il/elle/on va faire
Je vais jouer	I will play	Il/elle/on va jouer
Je vais travailler	I will work	Il/elle/on va travailler
Je vais manger	I will eat	Il/elle/on va manger
Je vais boire	I will drink	Il/elle/on va boire
Je vais finir	I will finish	Il/elle/on va finir
Je vais prendre	I will take	Il/elle/on va prendre
Je vais voyager	I will travel	Il/elle/on va voyager
Je vais sortir	I will go out	Il/elle/on va sortir
Je vais dormir	I will sleep	Il/elle/on va dormir
Je vais parler	I will talk	Il/elle/on va parler
Je vais pouvoir	I will be able	Il/elle/on va pouvoir
Je vais lire	I will read	Il/elle/on va lire

Giving reasons - future/conditional

ce sera - it will be
ce serait - it would be

Future tense expressions :

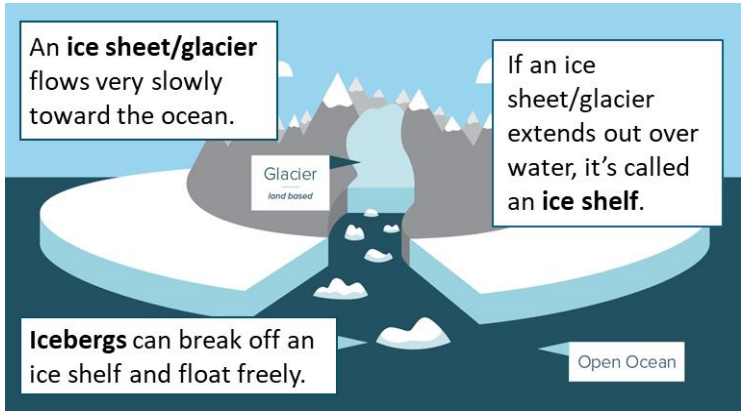
Quand je serai grand(e) - When I'm older
J'ai l'intention de + infinitive - I intend to
Je rêve de + infinitive - I dream of

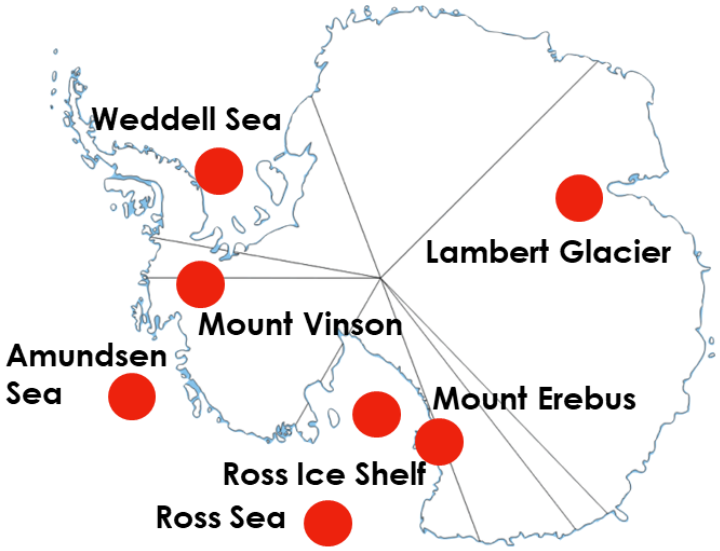
Geography

Tier 2/3	Definition
Cold Desert	an arid habitat with an annual rainfall of less than 25 cm
Flora/Fauna	Plants/Animals
Adaptation	change in an animal or plant to allow it to better fit its location so its chances of survival are improved
Antarctica Treaty	an agreement regarding the use of Antarctica under international law between 51 different countries and organisations.
Commercial mining	extraction of minerals (like coal, gold, or construction materials) primarily for sale
Tourism	when people travel away from home for pleasure

Background facts:

Antarctica is the coldest, windiest and least populated continent on the planet.
Antarctica is a desert.
It is in the Southern Hemisphere and it is surrounded by the Southern Ocean.
98% is covered in ice and snow.
The average temperature is around - 30 °c.
Nobody owns Antarctica. It has no government or permanent population.





The Antarctic Treaty:

An agreement to protect Antarctica.
It was agreed in 1959.
51 countries have now signed up to the treaty.

Antarctic Treaty agreement/rules:

1. To make Antarctica a natural reserve that is devoted to peace and science
2. To allow scientists freedom to work
3. To share scientific knowledge
4. To set aside any territorial claims
5. To ban nuclear explosions and the disposal of radioactive waste
6. To make sure all visits to Antarctica comply with the treaty
7. To ban all commercial mining until at least 2048.
8. To ensure all waste is disposed of without damaging the environment
9. To protect all Antarctic animals and plants.

Geography

Captain Robert Falcon Scott

- Famous British explorer and Royal Navy Captain.
- Led a failed expedition in 1910 to the South Pole.

Route

- Made his base at Camp Evans on Ross Island (for scientific research - was further from the pole).
- Took same route as Shackleton's expedition, reached the Polar Plateau along the Beardmore Glacier (broken up & crevassed, led to slow progress for dogs, ponies & motor sleds).

Transport

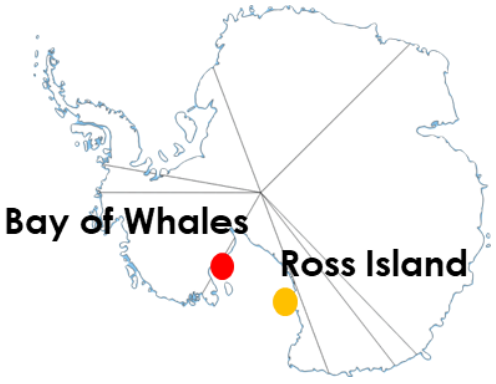
- Motor sleds, ponies, dogs and an expert Skier (to teach his men how to ski).
- Largest of the three motors was lost and the last two failed.
- Ponies had snowshoes to stop them sinking into the soft snow.
- Couldn't train the dogs making them useless, trying to train them was time consuming.
- Scott tried to teach his team to ski but they were reluctant. Used a slow, exhausting method of manhauling.

Weather

- Weather records show that the return journey was bad, being 1 in 15 year record temperature lows.

Food

- Insufficient food meant they arrived at the pole in bad state
- Paraffin fuel cans leaked fuel, less fuel led to dehydration (fuel was to make a fire and melt the snow to drink).
- They had a lack of vitamins so started to suffer from scurvy.
- The ponies were killed for food.



Captain Roald Amundsen

- Norwegian explorer and had experience in the Arctic using dog sleds and skis.
- 2 years experience on the Belgica expedition to Antarctica in 1897-1899.

Route

- Started at the Bay of Whales. 60 miles closer to the pole than Scott.
- More of the journey distance was made over the Ross Ice Shelf meaning that less of the journey was at the altitude of the Polar Plateau.

Transport

- Dogs were used in the early part of the trip with heavy loads to get up onto the Polar Plateau.
- All of the Norwegians could ski well.
- The speed of the dogs and skiers meant that the longer periods of rest were possible.

Weather

- There is evidence to show that Amundsen avoided all severe weather.

Food

- Team gained weight during the journey as they had extra food and killed the dogs along the way.
- Amundsen deposited three times the amount of food than Scott.
- His team used paraffin fuel and made sure they closed properly to ensure no fuel losses.
- The food included oatmeal and extra vitamins to help prevent scurvy.

History

Vocabulary List	
abort	Stopping something before it has been completed.
aggressive	Ready or likely to attack or confront.
Blitz	Attacked by bombs dropped by enemy aircraft.
cemetery	Burial place.
conflict	A serious disagreement and argument.
desperate	Feeling or showing a hopeless sense that a situation is so bad as to be impossible to deal with.
equip	Supply with the necessary items for a particular purpose.
evacuate	To send someone to a place of safety, away.
fatality	A death caused by an accident or by violence.
foreign	Of, from or in a country or language other than your own.
government	The group of people with the authority to govern a country or state.
Holocaust	The killing of millions of Jews by the Nazis.
identity card	A card carrying the holder's personal details.
invasion	When a foreign army enters a country by force.
occupy	Take control of (a place, especially a country) by military conquest or settlement.
parliament	The most powerful people, consisting of the Sovereign, the House of Lords, and the House of Commons.
rationing	A limit the amount of food you were allowed to buy.
seize	Taking control of a place quickly and with force.
soldier	A person who serves in an army.
treaty	Written agreement between countries in which they agree to do a particular thing.
tyrant	Someone who treats the people they have authority over in a cruel and unfair way.
violated	Breaking an agreement, law, or promise.

World War 2
1939 - 1945

The Home Front

- The Government issued gas masks to everyone in Britain.
- German submarines were attacking British ships creating a shortage of supplies. This led to rationing.
- Propaganda posters were used to encourage citizens to act safely and support the war effort.
- Air raid shelters were built in

Women and Children

Children were taught drills on how to get to safety in case of an air raid. Many were evacuated from cities to the countryside where it was deemed safer.
Women played an important role in the war and this is where the learned new skills. They worked in factories, as mechanics, air force, farms. Suddenly, women felt valued and important and this empowered them.

Famous People

Neville Chamberlain	Prime Minister of Britain during the outbreak of WW2.
Winston Churchill	Prime Minister of Britain for the majority WW2.
Franklin D Roosevelt	President of the USA during WW2.
Joseph Stalin	Leader of Russia during WW2
Benito Mussolini	Leader of Italy during WW2
Anne Frank	A victim of the Holocaust who kept a diary of her time in hiding.

Map of Europe

"I have to tell you now that no such undertaking has been received, and that consequently this country is at war with Germany."

Neville Chamberlain
3rd September 1939

"We shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender."

Winston Churchill
4th June 1940

Timeline

1918 The Treaty of Vesailles ended WW1

1933 Adolph Hitler came into power in Germany.

1936 Hitler led troops into the Rhineland violating the treaty.

1938-1939 Germany invaded Austria, Czechoslovakia and Poland.

03/09/39 Britain declare war on Germany which starts WW2

1940 Battle of Britain

09/1940 until 05/1941 The Blitz attacks

08/05/45 Victory Day (VE Day). The day the war officially ended.

History

The Pacific Theatre

Timeline

1939	1st September	German troops invade Poland.
	3rd September	Britain and France declare war on Germany.
1940	10th May	The Battle of France begins.
	26th May	Allied forces are evacuated from Dunkirk in France.
	10th July	The Battle of Britain begins.
	7th September	The Blitz begins.
1941	22nd June	Germany invades the USSR (Soviet Union).
	7th December	Japan bombs Pearl Harbor in the US.
1943	16th and 17th May	The Dambusters bombing raid is carried out.
1944	6th June	The D-Day landings.
1945	7th May	Germany surrenders to the Allies.
	6th and 9th August	The US drops atomic bombs on two cities in Japan.

Key People

Adolf Hitler	Leader of the Nazi Party and Chancellor of Germany, 1933 - 1945 (*aka, Führer meaning leader*)
Benito Mussolini	Italian political leader who became **the fascist dictator of Italy** from 1925 - 1945
Emperor Shōwa	Emperor of Japan 1926-1989. Better known by his personal name **Hirohito.**
Franklin D. Roosevelt	US President, 1933 – 1945 (*took the US into the war following the Perl Harbor attacks*)
Harry S. Truman	US President, 1945 – 1953 (*responsible for the decision to drop Atomic bombs on Japan*)

Vocabulary

Allies	The United Kingdom, France and Poland, later joined by other countries, including the USSR (Soviet Union), the United States of America and China.
Atomic Bomb	A very high-energy bomb made of radioactive material.
Axis	The Axis Powers were originally Germany, Japan and Italy. Other countries joined them later.
Commonwealth	A political community. The British and Commonwealth Armies were made up of over 10 million soldiers from Britain, Australia, Canada, India, New Zealand, South Africa and the many other components of the British Empire.
Propaganda	Information designed to promote a political idea or opinion.

Sticky Knowledge

Tripartition Pact	Agreement by Germany, Italy, and Japan (September 27th, 1940). It created a defence alliance between the countries and intended to deter the United States from entering the conflict.
Attack on Pearl Harbor	December 7th, 1941 - Japanese airplanes made a surprise attack on the US Navy in Pearl Harbor. Destroyed nearly 20 American ships and more than 300 airplanes. 2,403 sailors, soldiers and civilians were killed and about 1,000 people were wounded.
Battle of Iwo Jima	February 19th, 1945 – March 26th, 1945 -The United States Marine Corps and Navy captured the island of Iwo Jima from the Imperial Japanese Army.
Hiroshima and Nagasaki	August 1945 - The US dropped two atomic bombs on Hiroshima and Nagasaki. The Hiroshima bomb killed at least 75,000 people instantly and tens of thousands more died from radiation poisoning in the years that followed.

YEAR 9 — REASONING WITH NUMBER...

Numbers

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Identify integers, real and rational numbers
- Work with directed number
- Solve problems with number
- Find HCF/ LCM
- Add/ Subtract fractions
- Multiply/ Divide fractions
- Write numbers in standard form

Keywords

Integer: a whole number that is positive or negative
Rational: a number that can be made by dividing two integers
Irrational: a number that cannot be made by dividing two integers
Inverse operation the operation that reverses the action
Quotient: the result of a division
Product: the result of a multiplication
Multiples: found by multiplying any number by positive integers
Factor: integers that multiply together to get another number

Integers, real and rational numbers

Rational – root word: ratio

Real numbers: $\frac{2}{3}$ stems from 2.1 ($\frac{2}{3}$ of the whole)

Irrational numbers: $\sqrt{2}$ the solution is a decimal that never ends and does not repeat

The square root of a negative is not a real number and cannot be found

HCF/LCM (R)

1 is a common factor of all numbers

Common factors are factors two or more numbers share

HCF – Highest common factor

HCF of 18 and 30

18: 1, 2, 3, (6), 9, 18
30: 1, 2, 3, 5, (6), 10, 15, 30

HCF = 6

LCM – Lowest common multiple

LCM of 9 and 12

9: 9, 18, 27, (36), 45, 54
12: 12, 24, (36), 48, 60

LCM = 36

The first time their multiples match

Standard form (R)

Any number between 1 and less than 10 — $A \times 10^n$ — Any integer

$6 \times 10^5 + 8 \times 10^5$

$= 600000 + 800000$
$= 1400000$
$= 1.4 \times 10^6$

$(1.5 \times 10^5) \div (0.3 \times 10^3)$

$15 \div 0.3 \times 10^5 \div 10^3$
$= 5 \times 10^2$

Directed number (R)

Addition

$2 + -4 = -2$

Generalisation: + − = −

Zero pair ($-1 + 1 = 0$)

Two "−1" left $= -2$

Subtraction

$2 - -1 = 3$

Generalisation: − − = +

Representation for calculation

"Subtract" – means take away or remove

Take away one

Start with the representation of 2

Multiplication

= −1
= 1

The act of making counters into their negative is turning them over

$-2 \times -3 = 6$

Divisions are the inverse operations

$a = 5$ $b = -4$

Brackets around negative substitutions helps remove calculation errors

$2a - b = 2 \times 5 - (-4) = 10 + 4 = 14$

Addition/ Subtraction of fractions (R)

$\frac{4}{5} - \frac{2}{3} = \frac{12}{15} - \frac{10}{15} = \frac{2}{15}$

Use equivalent fractions to find a common multiple for both denominators

Multiplication/ Division of fractions (R)

$\frac{3}{4} \times \frac{2}{3}$

Shade in 3 parts

Repeat it on this many rows

This many columns

This many rows

$\frac{3}{4} \times \frac{2}{3} = \frac{6}{12}$

Parts shaded

Total number of parts in the diagram

Modelled:

3 × 4

Remember to use reciprocals

$\frac{2}{5} \div \frac{3}{4}$

$\frac{2}{5} \times \frac{4}{3}$

Multiplying by a reciprocal gives the same outcome

Represented

$= \frac{8}{15}$

Maths

YEAR 9 – REASONING WITH NUMBER...

Using Percentages

@whisto_maths

What do I need to be able to do?

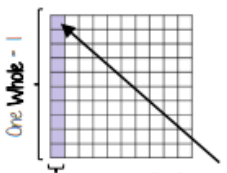
By the end of this unit you should be able to:

- Use FDP equivalence
- Calculate percentage increase and decrease
- Express percentage change
- Solve reverse percentage problems
- Solve percentage problems (calculator and non calculator problems)

Keywords

Percent: parts per 100 – written using the / symbol
Decimal: a number in our base 10 number system. Numbers to the right of the decimal place are called decimals
Fraction: a fraction represents how many parts of a whole value you have
Equivalent: of equal value
Reduce: to make smaller in value
Growth: to increase/ to grow
Integer: whole number, can be positive, negative or zero
Invest: use money with the goal of it increasing in value over time (usually in a bank)
Multiplier: the number you are multiplying by
Profit: the income take away any expenses/ costs

FDP Equivalence (R)



Percentage
100/ = a whole = 100 hundredths

10 hundredths
10 out of 100
10/

$\frac{10}{100} = \frac{1}{10} = 0.10$

One **hundredth**
(one whole split into 100 equal parts)

ones	tenths	hundredths
•	•	

Converting FDP (R)

$\frac{70}{100}$ → This also means 70 ÷ 100 → 70 out of 100 squares → **70 "hundredths" = 7 "tenths" 0.7** →  → 70 hundredths = 70/

Using a **calculator**

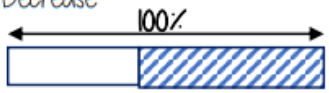
 → S⇌D Convert to a decimal

→ **× 100** converts to a percentage

Be careful of recurring decimals
e.g. $\frac{1}{3} = 0.3333333$
$= 0.\dot{3}$
The dot above the 3

Percentage Increase/ Decrease (R)

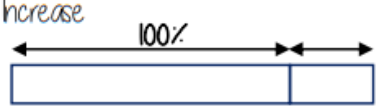
Decrease



Decrease by 58/

100 – 0.58 = 0.42 ← **Multiplier** Less than 1

Increase

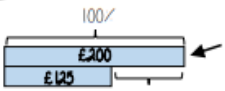


Increase by 12/

100/ + 12/ = 112/
100 + 0.12 = 1.12 ← **Multiplier** More than 1

Percentage change (R)

I bought a phone for £200
A year later sold it for £125



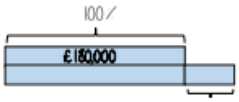
All values of change compare to the ORIGINAL value

Percentage loss

$\frac{75}{200} \times 100 = 37.5/$

$$\frac{\text{Difference in values}}{\text{Original value}} \times 100$$

I bought a house for £180,000, I later sold it for £216,000



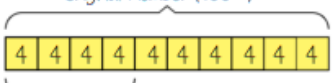
Percentage profit

Money made (profit value) → $\frac{36000}{180000} \times 100 = 20/$

Reverse Percentages

40/ of my number is 16
What am I thinking of?

Original Number (100/)

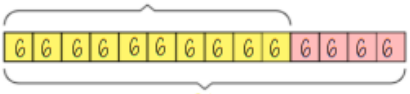


16

40/ = 16
10/ = 4
100/ = 40

140/ of my number is 84
What is the original number?

Original Number (100/)



84

140/ = 84
10/ = 6
100/ = 60

Try to scale down to 10/ or 1/ and then scale back up to 100/

Maths

YEAR 9 — REASONING WITH NUMBER...

Maths & Money

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Solve problems with bills and bank statements
- Calculate simple interest
- Calculate compound interest
- Calculate wages and taxes
- Solve problems with exchange rates
- Solve unit pricing problems

Keywords

Credit: money being placed into a bank account
Debit: money that leaves a bank account
Balance: the amount of money in a bank account
Expense: a cost/ outgoing
Deposit: an initial payment (often a way of securing an item you will later pay for)
Multiplier: a number you are multiplying by (Multiplier more than 1 = increasing, less than 1 = decreasing)
Per Annum: each year
Currency: the type of money a country uses
Unitary: one — the cost of one

Bills and Bank Statements

Bills — tell you the amount items cost and can show how much money you need to pay

Some can include a total

Look for different units (Is it in pence or pounds)

Menu	Price
Milk	89p
Tea	£1.50

Bank Statements

Bank statement can have negative balances if the money spent is higher than the money coming into the account

Date	Description	Credit	Debit	Balance
1st Sept	Salary	£1500		£1500
1st Sept	Mortgage		£600	£900
25th Sept	Bday Money	£15		£915

Simple Interest

For each year of investment the interest remains the same

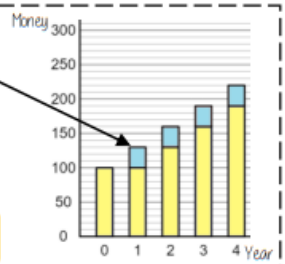
$$\frac{\text{Principal amount} \times \text{Interest Rate} \times \text{Years}}{100}$$

Principal amount is the amount invested in the account

e.g. Invest £100 at 30% simple interest for 4 years

$\frac{100 \times 30 \times 4}{100} = £120$

This account earned **£120** interest. At the end of year 4 they have **£220**



Compound Interest

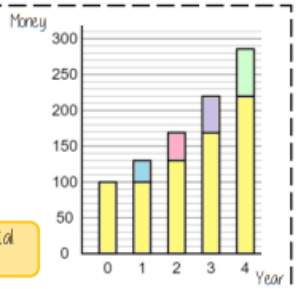
Interest is added to the current value of investment at the end of each year so the next year's interest is greater

$$\text{Principal amount} \times \text{Multiplier}^{\text{Years}}$$

e.g. Invest £100 at 30% compound interest for 4 years

$100 \times 1.3^4 = £285.61$

This account has **£285.61** in total at the end of the 4 years



Value Added Tax (VAT)

VAT is payable to the government by a business. In the UK VAT is 20% and added to items that are bought.

Essential items such as food do not include VAT.

Wages and Taxes

Salaries fall into tax brackets — which means they pay this much each month from their salary

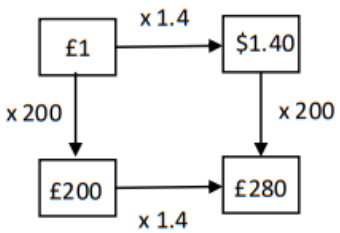
Taxable Income	Tax Rate
£12 501 to £50 000	20%
£50 001 to £150 000	40%
over £150 000	45%

Over time

Time and a half — means 1.5 times their hourly rate

Double — 2 times their hourly rate

Exchange Rates



When making estimates it is also useful to use estimates to check if our solution is reasonable

Use inverse operations to reverse the exchange process

Common Currencies

United Kingdom	£	Pounds
United States of America	$	Dollars
Europe	€	Euros

Unit Pricing

4 Oranges £1	5 cupcakes £1.20

$4 = £1.00 \div 2$
$2 = £0.50 \div 2$
$1 = £0.25$

$5 = £1.20 \div 5$
$1 = £0.20$

Cost per Unit

To calculate unit per cost you divide by the cost

Cupcakes are the best value as one item has the cheapest value

There is a directly proportional relationship between the cost and number of units

Maths

Music

Year 9 Music Term 3

Year 9: Music: Rock'n'Roll

Rock'n'roll was a **cultural** as well as **musical** revolution starting in the **1950s**.


Chuck Berry

Rooted in **African American blues** music, it was made popular by both **black** and **white** artists; it created the '**teenager**' and helped break down **racial segregation** and support the **Civil rights movement**.

Listen online (YouTube etc) to ***Chuck Berry***, ***Elvis Presley***, ***Little Richard, Buddy Holly*** and ***Sister Rosetta Tharpe***.

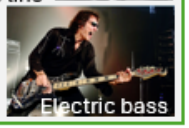
Playing Rock'n'Roll bass lines

The **bass** was a vital to the **energy** of Rock'n'Roll, it was played on the piano's **low notes** or on the **bass**.

At first the bass was a **double bass**, a large upright orchestral instrument, but soon this was swapped out for an **electric bass** that looked like a **guitar**. This was much **easier** to transport and to **connect** the **amplifiers** for **sound**.

Download a phone app for keyboard (e.g. mini piano lite) and try this bass line

C, E, G, A, Bb, A, G, E, (repeat twice)
F, A, C, D, Eb, D, C, A, (repeat twice)


Electric bass

Octave pedalling bass lines.

The **biggest characteristic** that was **different** to the **blues** (from which rock'n'roll came) was the very **high energy playing.**

This **high energy** would later develop into **rock, funk, punk, heavy metal** and many other **genres** that rock'n'roll artists would **inspire**.

To achieve this energy, the **bass lines** of rock'n'roll would use an '**octave pedal**' (or 'high pedal') - a **repeated note** an **octave higher** that was played in a **syncopated** (offbeat) manner to **drive** the music.

Use your keyboard or app to play.

C,c,E,c,G,c,A,c,Bb,c,A,c,G,c,E,c
F,f, A,f, C,f, D,f, Eb,f, D, f, C,f, A,f

Small letters in yellow are the '**octave pedal**'

On a keyboard, the octave is quite a stretch at first.

Rock'n'Roll style licks and riffs

Rock'n'Roll borrowed heavily from the Blues. It used a similar 12 bar structure, the same blues scale – and a lot of call and response.

However, the ways these features were used was different – energy was higher – lyrics were about teenage life and romance.
Lyrically they were often quite cheeky, using innuendo (words with another meaning) to get around the strict censors.

Lead guitar and piano parts got 'grittier' including dissonance and out of key notes – try these licks.

Train like : B(quickly to) C & Eb at same time

Dissonant chord: F#, G, Bb, C

Make up some riffs including these licks.

The song Rock around the clock

This song by Bill Hailey and the Comets (1954), is credited as the first rock'n'roll song to reach a mass teenage audience.
Musically it blends Boogie-Woogie rhythms, a swing (40s) era backbeat and country guitar, creating a danceable sound built on 4/4.

After its use in a film, it turned into a cultural flashpoint, with the young embracing it as rebellious, energetic and their own, while adults saw it as disruptive and threatening.

Listen to it online, make some notes on why you think it was so impactful and how it sounds today.

Research for your Rock'n'roll piece

To **help** you with your piece use your **phone app** to improvise in the **blues scale** in a rock'n'roll style.

Research 2 **songs each** from the following online,

Chuck Berry
Elvis Presley
Bo Diddley
Little Richard
Buddy Holly

Sister Rosetta Tharpe

Identify features that you could include in your work

Challenge:
Research the **Son Clave**
A main rhythm in **Rock'n'Roll**

PE

Year 9 Physical Education Term 3

1 Dribbling & Ball Handling

Use the **fingertips, not the palm**, to control the ball. Keep your head up to scan for space and teammates. Practice both **dominant and non-dominant hand dribbling** to improve control under pressure.

Basketball

2 Passing and Movement

Master **chest pass, bounce pass, and overhead pass**. Use quick movement to create space—**cutting and rotating** to offer passing options. Use the **give-and-go** tactic to beat defenders.

Basketball

3 Shooting and Lay-ups

For a **set shot**, square your feet, bend your knees, and follow through with your wrist. A **lay-up** involves driving toward the basket, jumping off one foot, and using the backboard to score.

Basketball

4 Game Play and Rules

Basketball is played 5 vs 5, Key rules include: **Travelling** (moving without dribbling), **Double dribble** (stopping and restarting the dribble), **Fouls** (physical contact such as pushing or holding), and **Backcourt violation** (taking the ball back over the halfway line after crossing it). Each basket scored inside the 3-point arc is worth **2 points**, and outside the arc is **3 points**. **Free throws** are worth **1 point** each and are awarded after certain fouls.

Basketball

5 Dig and Ready Position

A **dig** is used to receive low balls. Keep feet shoulder-width apart, knees bent, and arms locked straight to guide the ball upward. Always return to the **ready position** after each contact.

Volleyball

6 Set and Court Awareness

A **set** is an overhead pass using the fingertips. It helps position the ball for a spike. Communicate loudly ("Mine!") and move into space to assist the team.

Volleyball

P4 Radioactivity

Keywords	
Ion	The charged particle produced when an atom gains or loses electrons.
Ionising power	The ability of a radiation to create ions.
Ionised	When atoms in a substance exposed to radiation lose electrons and become ions.
Penetrating power	The ability of radiation to pass through substances
Irradiated	A substance which has been exposed to radiation but is not made radioactive.
Radioactive contamination	When radioisotopes are transferred to an object making it radioactive
Half-life	The time it takes for either the number of radioactive nuclei in a sample to halve or the activity to fall to half of its original value.
Activity	The number of radioisotopes that decay per second. 1 count per second = 1 Becquerel (Bq)
Count rate	Number of counts per second

Type	What is it?	Charge	Relative Mass	What will stop it?	Where do we use it?
alpha **α**	Helium nucleus	+2	4	A few cm of air or a sheet of paper	Fire Alarms
beta **β**	Fast moving electron	-1	Almost zero	5mm aluminium or 3mm of lead	Medical tracers measuring thickness of foil Detecting leaks in pipes
gamma	EM wave	nil	zero	Thick lead (several cm) or concrete more than 1m thick.	Killing bacteria on food Killing cancer cells

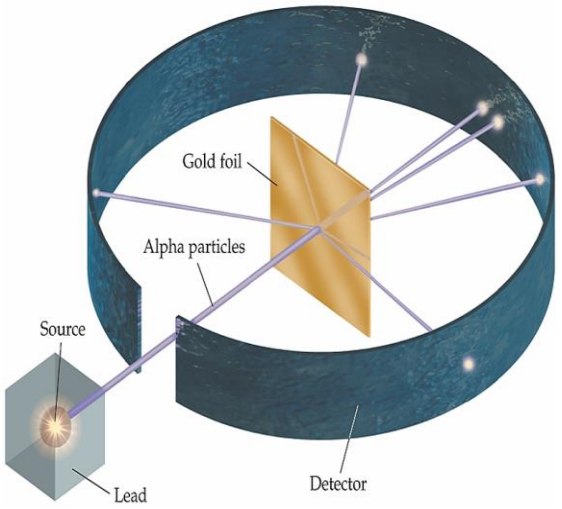
Type	Ionising Power	Range in air	Effect of electric field
Alpha, **α**	High	About 5cm	Attracted towards -ve plate
Beta **β**	Medium	About 1m	Attracted to +ve plate
Gamma **γ**	Low	Infinite	Unaffected

Rutherford's Scattering Experiment

Ernest Rutherford fired positively charged alpha particles at a thin piece of gold foil in an experiment which lead to the rejection of the plum pudding model of the atom.

The three main conclusions were:

1) Because the majority of alpha particles passed through the foil, most of the atom is empty space.
2) Because some of the alpha particles deflected there must be a small positively charged region inside the atom.
3) Because alpha particles are fast moving, the positively charged region must have a large mass to stop and repel them.



Science

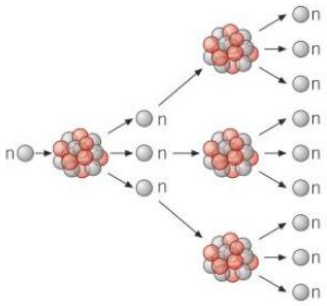
P7 Radioactivity

Keywords	
Radioactive tracer	These contain radioactive isotopes used to trace the flow of substances through an organ.
Nuclear fission	The splitting of a large nuclei into two smaller nuclei.
Chain reaction	Fission reaction where fission neutrons go on to cause further fissionable nuclei to split.
Moderator	Substance in a nuclear reactor that slows down fission neutrons.
Nuclear fusion	A process where two smaller nuclei fuse together to form a larger nuclei, converting mass into energy.

Nuclear Fission

When a nucleus undergoes fission it releases:

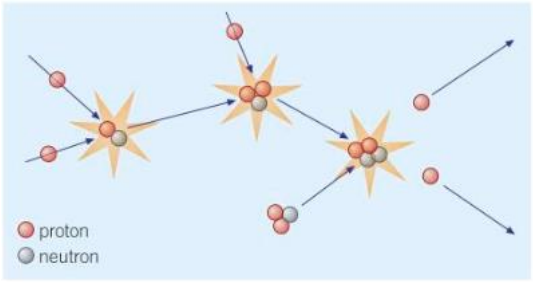
- Two or three neutrons
- Energy, in the form of gamma radiation, plus the kinetic energy stored in the fission neutrons and the fragment nuclei.



Nuclear Fusion

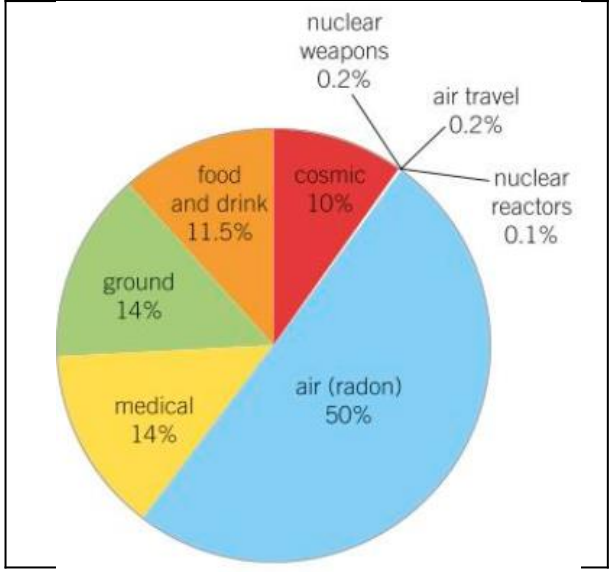
During nuclear fusion some of the mass from the two small nuclei is converted into energy. Some of this energy is released as nuclear radiation.

Nuclear fusion in the sun only happens with nuclei of a relative mass of no more than 55, the same as an iron nucleus.
To produce bigger nuclei energy must be supplied.

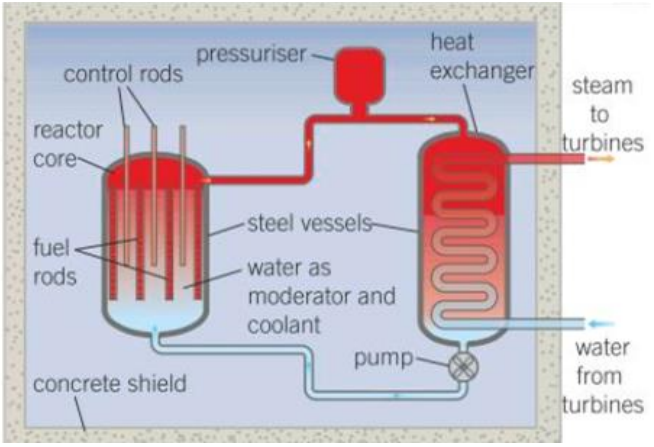


Fusion reactions in the Sun

Background Radiation



A Nuclear Reactor

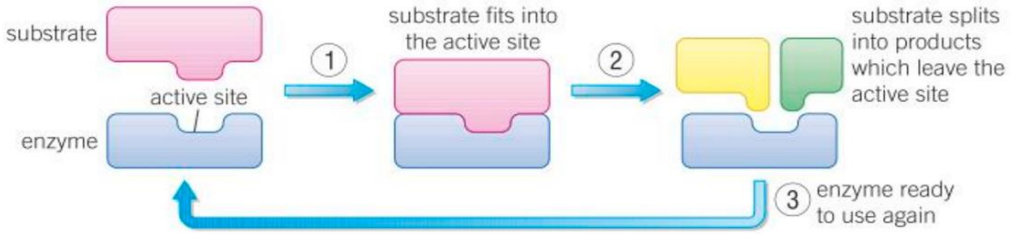


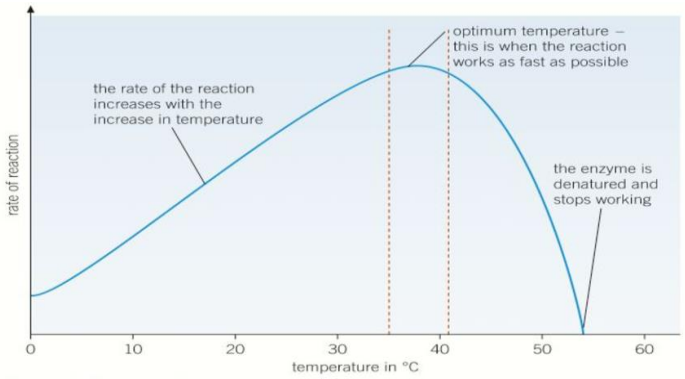
Nuclear waste

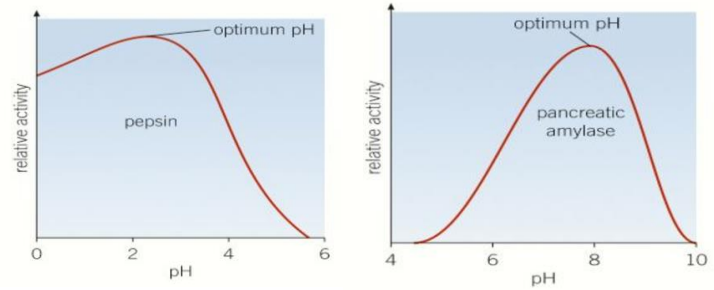
Nuclear fuel rods continue to emit heat and nuclear radiation long after a fission reactor has been turned off. They are stored in water to cool then processed to remove unused fuel, which can be made into new fuel rods. Radioactive waste is often stored underground to shield the radiation.

Keywords	
Catalyst	A substance that speeds up the rate of another reaction but is not used up or changed itself
Enzyme	A biological catalyst
Substrate	Molecule(s) acted on by a catalyst
Active Site	The site on enzymes where the reactants bind
Denature	Change the shape of the active site
Metabolism	The sum of all the reactions in a cell or the body
Bile	Made in the liver and stored in the gall bladder. It neutralises stomach acid and emulsifies fats.

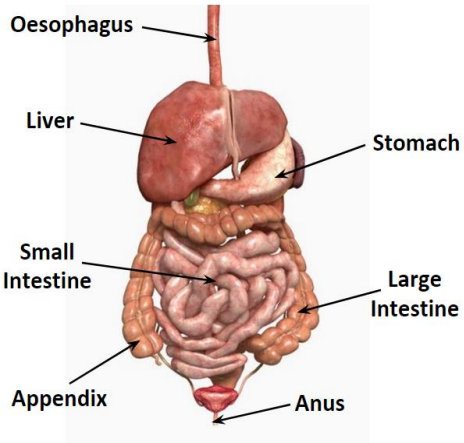
Substrate	Enzyme	Product	Where enzyme is produced	pH
Starch	Amylase - a carbohydrase	Simple sugars (glucose)	Salivary glands, pancreas & small intestine	7
Protein	Trypsin - a protease	Amino acids	Stomach, pancreas & small intestine	3
Lipids	Lipases	Fatty acids & glycerol	Pancreas & small intestine	8







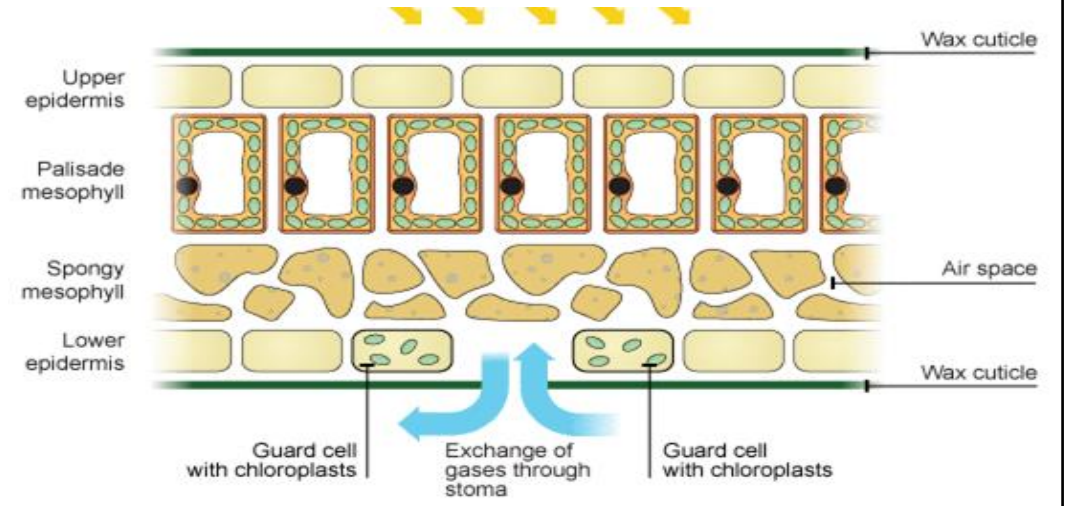
B3 Organisation and the Digestive System



Molecule to be tested	Food test	Positive result	Negative result
Protein	Biuret solution	Purple	Stays blue
Lipids (fats)	Ethanol	Milky white suspension	Clear solution
Starch	Iodine	Blue / black	Stays orange
Glucose	Benedict's solution & heat	Red	Stays blue

Keywords	
Arteries	Blood vessels that carry blood away from the heart.
Veins	Blood vessels that carry blood to the heart.
Capillaries	The smallest blood vessels where exchange occurs.
Xylem	Transports water around the plant.
Phloem	Carries dissolved sugars around the plant.
Translocation	The movement of sugars from the leaves to the rest of the plant through the phloem.
Transpiration	The loss of water vapour from the leaves of plants through the stomata.

Cross section of a leaf



B4 Organising Plants and Animals