KNOWLEDGE ORGANISER

YEAR 8– 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

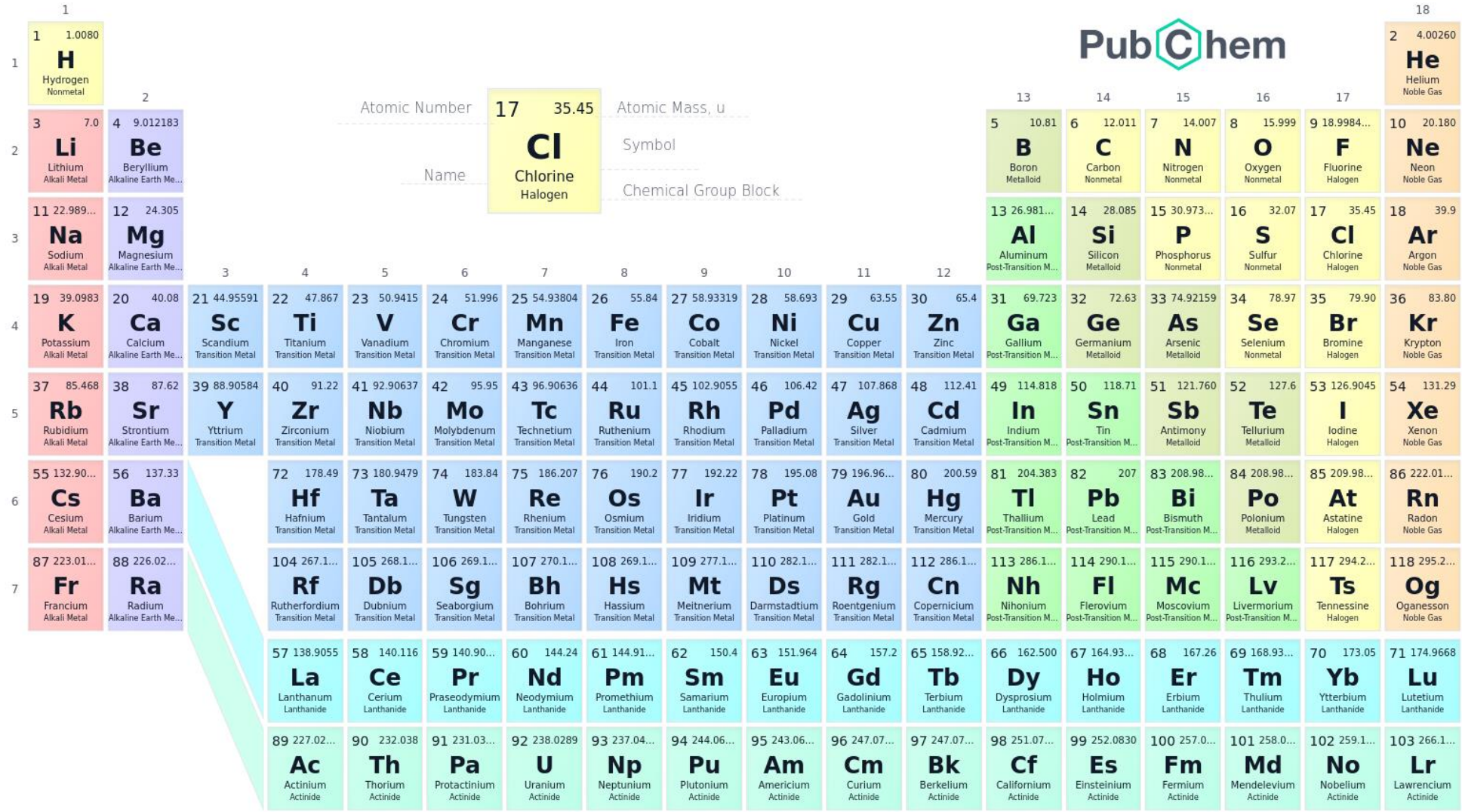
9:00–9:05	AM Reg
9:05–10:20	Lesson 1
10:20–11:35	Lesson 2
11:35–12:05	Break 1
12:05–13:20	Lesson 3
13:20–13:50	Break 2
13:50–15:05	Lesson 4
15:05–15:30	PM Reg – assembly or guided reading

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

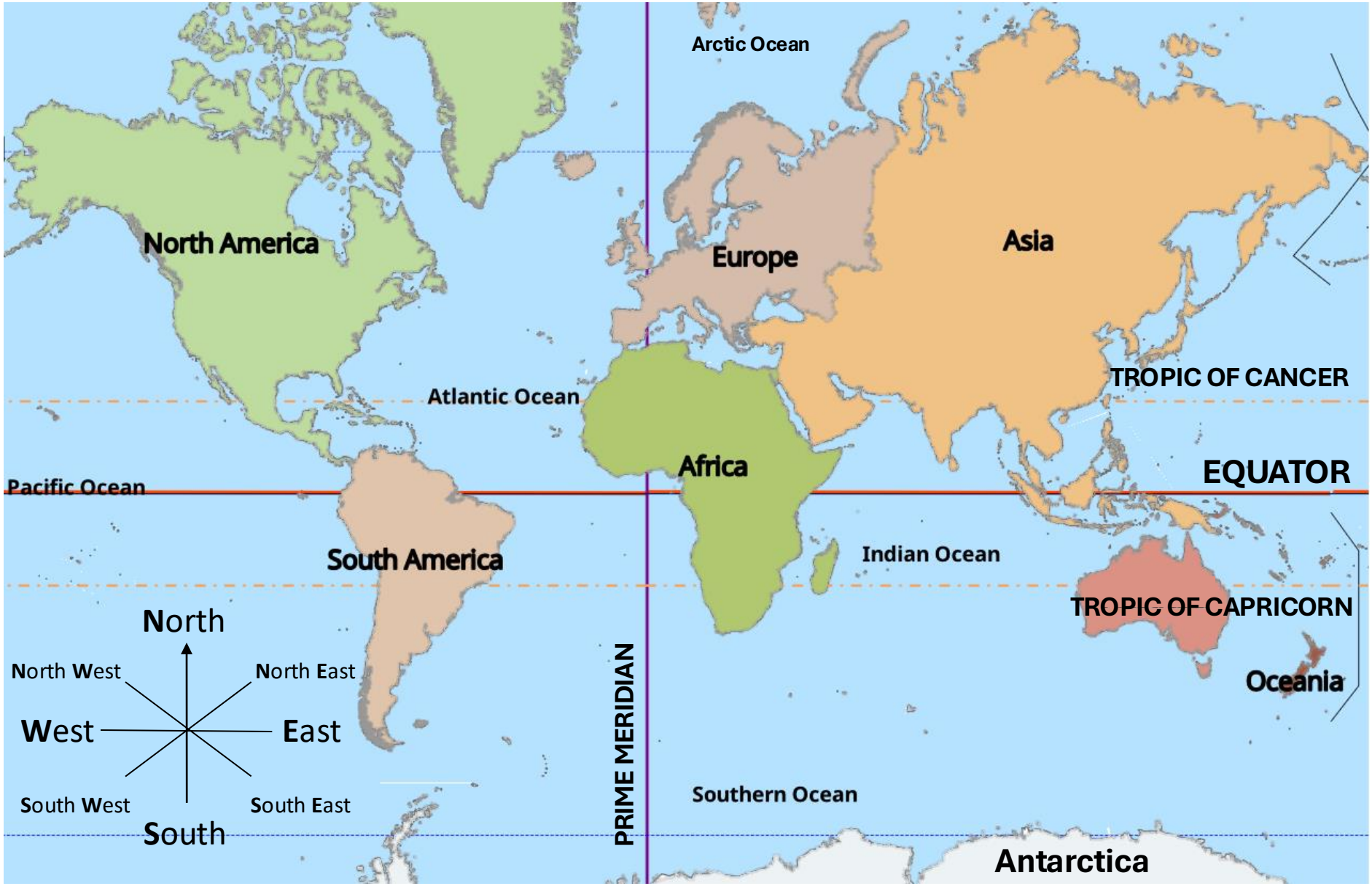
PERIODIC TABLE OF ELEMENTS

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 8 David Hockney

Art

Term 3

Introduction to David Hockney

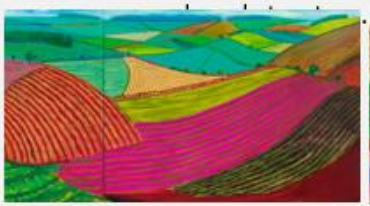
- **Learning Objectives**: Understand who David Hockney is and his significance in art history.
- **Activities**:
- Presentation/discussion on Hockney's life and work (focus on landscapes like "Bigger Trees Near Warter")
- Class discussion: What makes his landscapes unique?
- Sketchbook task: Create a mood board of Hockney landscapes


Exploring Hockney's Style

- **Learning Objectives**: Identify and describe key features of Hockney's landscape style.
- **Activities**:
  - Analyse Hockney's colour palettes and compositional choices.
  - Colour mixing exercises inspired by Hockney's vibrant palette.
  - Quick colour studies of selected works.

Drawing from Observation

- **Learning Objectives**: Develop drawing skills from life and photos.
- **Activities**:
  - Use student photographs to sketch basic compositions.
  - Apply techniques like line, texture, and tone.
  - Compare with Hockney's line




Experimenting with Media

- **Learning Objectives**: Explore various media inspired by Hockney's techniques.
- **Activities**:
- Watercolour, acrylic, and coloured pencil experiments.

Composition Planning

- **Learning Objectives**: Plan a final composition based on personal landscapes and Hockney's influence.
  - **Activities**:

•Support with individual feedback.
•Mid-point group critiques.
•Emphasis on texture, colour contrast, and pattern.

Key words:

- Pop Art, vibrant color, perspective, light, California, swimming pools, portraiture, contemporary, surrealism abstract,

Final Piece

- **Learning Objectives**: Begin final landscape artwork using chosen media.
- **Activities**:
- Finalise landscape composition using thumbnail sketches.
- Peer critique to give feedback on designs.

Computing

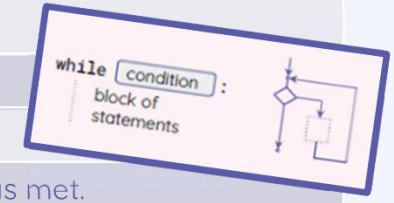
Year 8 Computer Science Introduction to Python Knowledge Organiser

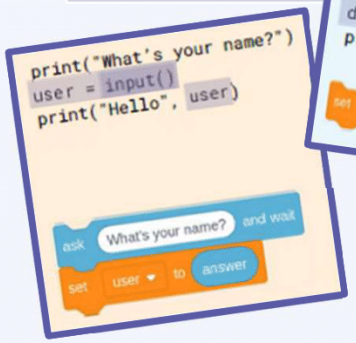
Key Word	Definition
Algorithm	A set of precise instructions, expressed in some sort of language (e.g. textual, visual).
Program	A set of precise instructions, expressed in a programming language.
Programming Language	A set of instructions written by a programmer to deliver instructions to the computer to perform and accomplish a task.
Input	Data entered into a program.
Output	Data from the program is shown to the user.
Variable	Used to store information to be referenced and manipulated in a computer program.
Assignment	A statement in computer programming that is used to set a value to a variable name.
Programming Environment	A text editor to create computer programs.
Program Translation	Converting a program into a code that the computer can execute.
Program Execution	The process of running a computer software program.
Interpreter	Translates source code into object code one instruction at a time.
Integer	A number that is not a fraction; a whole number.
String	A sequence of characters enclosed between the double quotes "...".
Execution	The process of running a computer software program, script, or command.
Walk-through	A review technique to find the defects, bugs and problems in the code.
Operator	A character that represents a specific mathematical or logical action or process.
Expression	Any valid unit of code that resolves to a value.

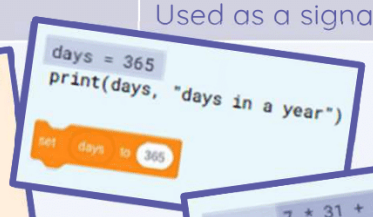
Computing

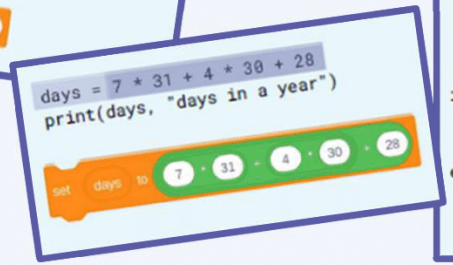
Year 8 Computer Science Introduction to Python Knowledge Organiser

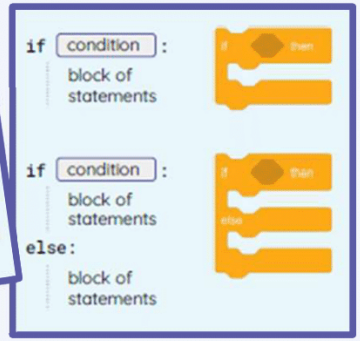
Key Word	Definition
Selection	A programming construct where a section of code is run only if a condition is met.
Relational Operators	Used to compare the values within an expression.
Logical Expression	A statement that can either be True or False.
Condition	Statements that are created by the programmer which evaluates actions in the program and evaluates if it's True or False.
Randomness	The generation of random numbers.
Execution	The process of running a computer software program, script, or command.
Multi-Branch Selection	A programming construct to change the control flow of a program based on values that match selected criteria.
Iteration	Repeating steps, or instructions , over and over again.
Boolean Operators	Used to compare the values within an expression.
Boolean Expression	A statement that can either be True or False.
Flag	Used as a signal in programming to let the program know that a certain condition has met.

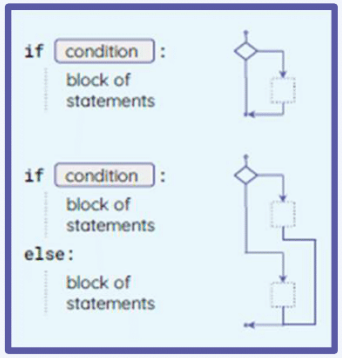


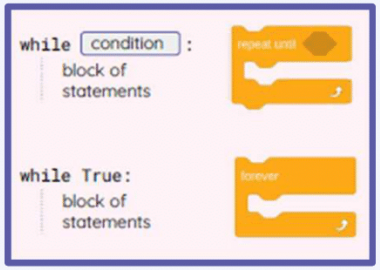












Drama

Year 8

Drama

Term 3

Plot

"Stone Cold," follows two parallel narratives: Link, a young man forced to live on the streets of London, and Shelter, a former soldier who targets homeless people for murder. Link, after running away from an abusive stepfather, struggles to survive and befriends Ginger, another homeless youth. Simultaneously, Shelter, driven by a warped sense of patriotism, believes he is cleansing the city by killing the homeless.

Getting from Page to Stage

1) Decide who is playing who.
2) Sit and read the scene, including stage directions.
3) Discuss the scene.
4) Get on your feet and start blocking.
5) Focus on performance skills to make the scene more detailed.

Context

Stone Cold is set in the 1990s, a time when homelessness was a significant issue, and the story highlights the prejudice and vulnerability faced by those living on the streets.

Themes

Homelessness
Society's failure to protect the vulnerable
Friendship and trust
Prejudice
Invisibility

Key Characters

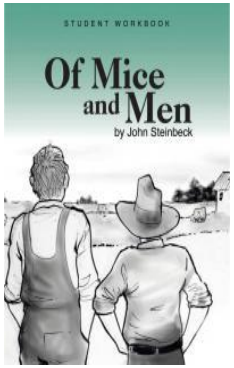
Link - real name Dave: a British teenager who grew up in Bradford until he became homeless.
Shelter - an ex-army man who served for twenty-nine years in the National Service
Ginger - a homeless boy whom Link meets in London and who becomes Link's friend and companion.
Louse - a journalist who goes undercover as Gail; a homeless girl who befriends Link.

Set Design Terminology

Staging type: end-on, traverse, thrust, proscenium arch, in-the-round, promenade.
Naturalistic or non-naturalistic
Stage Flat - a wooden structure to make walls
Rostrum - a raised platform
Painted Backdrop - a decorated back cloth
Cyclorama - a white backdrop that can be lit or projected onto

Stone Cold

English



Plot:

'Of Mice and Men' is centred around two migrant workers, George and Lennie, in California in the 1930s as they start work on a ranch in a place called Soledad (a Spanish word meaning 'solitude').

- The story takes place over a period of four days.

- While at the ranch, George and Lennie meet other characters, who emphasise the loneliness and difficulty of life for the people living and working in these places.

- Reflecting a period of economic devastation in the United States, 'Of Mice and Men' demonstrates the damaging effects of the Great Depression upon ordinary working men.

Historical and Social Context:

- John Steinbeck was born in Salinas, California in 1902. Although his family was wealthy, he was interested in the lives of the farm labourers and spent time working with them. He used his experiences as material for his writing.

- The American Dream involved the idea that "life should be better and richer and fuller for everyone, with opportunity for each according to ability or achievement." George and Lennie believe in the American Dream.

- On October 29, 1929, millions of dollars were wiped out in the Wall Street Crash. It led to people losing their life savings and 15 million people were unemployed with many moving out of the cities to look for work on ranches; these people were called itinerant workers.

- The Great Depression lasted from 1929 to 1939. The novella reflects how difficult finding work was for people like George and Lennie at this time.

- The Dust Bowl described the land in southern mid-western America after a drought led to failed harvests and dried-up land. Farmers were forced to move off their land. This made finding work difficult.

- Racism/sexism were common, especially in Southern states due to economic climate, & history of slavery. This is reflected in the treatment of characters like Crooks and Curley's Wife.

Key Characters:

George: Itinerant worker: frustrated, devoted, a dreamer.
Lennie: Itinerant worker: childlike, physically powerful.
Candy: The Old Swamper: unloved, an outcast, ageing.
Curley: The Boss' son: insecure, unmerciful, jealous.
Curley's wife: The only female: objectified, lonely, nameless.
Crooks: The Stable Buck: cynical, proud, isolated, an outcast.
Slim: 'Prince of the ranch': compassionate, wise, respected.
Carlson: Ranch hand: heartless, insensitive.

English

Key Quotations:

- George (Ch 1): "Guys like us...that work on ranches, are the loneliest guys in the world. They got no family. They don't belong no place..."

- Lennie (Ch 1): "Slowly, like a terrier who doesn't want to bring a ball to its master, Lennie approached, drew back, approached again."

- Slim (Ch 2): "Ain't many guys travel around together," he mused. "I don't know why. Maybe ever'body in the whole damn world is scared of each other."

- Candy (Ch 3): "I ought to have shot that dog myself, George. I shouldn't have ought to let no stranger shoot my dog."

- George (Ch 4): "We wouldn't talk nobody if we could. Jus' say, 'We'll go to her,' an' we would."

- Crooks (Ch 4): "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."

- Crooks (Ch 4): "A guy needs somebody to be near him. He whined, a guy goes nuts if he ain't got nobody."

- **Curley's wife (Ch 5):** "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."

Tier 2 Vocabulary:

Atmosphere	Mood	Stereotype	Isolation	Misogyny
Hostility	Novella	Personification	Segregation	Itinerant
American Dream	Pessimistic	Symbolism	Derogatory	Futile

Key Terms – Writer's Methods:

- Mood: The general feeling or atmosphere.
- **Inference:** Conclusion based on evidence.
- **Connotations:** Word associations.
- **Symbolism:** Representation through images.
- Colloquial dialogue: Informal speech.
- Juxtaposition: Contrasting ideas/images.
- Cyclical structure: Story begins and ends similarly.

Key Terms – Exploring Character:

- Symbiotic: Mutually beneficial relationship.
- Nomadic: Wandering.
- Social hierarchy: Status differences.
- Pugnacious: Eager to fight.
- Calculating: Secretive and strategic.
- Belligerent: Hostile.
- Volatile: Unpredictably aggressive.

English

Themes

Companionship	- George and Lennie are unusual as itinerant workers who work together, it was otherwise an isolated life. - Slim comments on the fact that George and Lennie travel together. - Crooks longs for companionship: "A guy needs somebody to be near him. He whined, a guy goes nuts if he ain't got nobody". (Chapter 4) - George and Lennie's friendship is a symbiotic relationship, where both benefit from being together: George has Lennie's strength and Lennie has George' protection.
Dreams:	- George and Lennie and Candy all dream of owning their own place. - Crooks dreamed of equal rights and a better life but his dreams have been replaced by cynicism. - Curley's Wife dreamed of being an actress but her dreams were ruined by her marriage to Curley. - All these dreams represent freedom and having control over their own lives, just like The American Dream.
Loneliness:	- The name of the town close to the ranch Soledad, which translates from Spanish to 'solitude'. - Crooks' isolation and loneliness as a black man is shown in his separation from the other men. - Curley's Wife is lonely as her relationship with Curley is loveless and she is the only woman on the ranch. - Candy represents the loneliness of a worker who feels useless on the ranch due to his age and disability. - Steinbeck believed loneliness created human suffering.

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Symbols/Motifs:

- **George & Lennie's farm:** Symbol of the American Dream.
- **Candy's dog**: Symbolizes survival of the fittest.
- **Lennie's puppy:** Symbolizes weakness and dependence.
- **Settings:** Includes the brush, bunkhouse, and Crooks' room, each symbolizing different aspects of freedom, restriction, and isolation.
- **Animal imagery:** Used to describe Lennie and reference the Robert Burns poem "To a Mouse."
- **Curley's Wife**: Her red clothing symbolizes seduction and danger.

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 fini**ssons**	*We finish*
Vous fini**ssez**	*You finish (form/pl)*
Ils/Elles fini**ssent**	*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		Aller = to go	
Je fais	*I do*	Je vais	*I go*
Tu fais	*You do*	Tu vas	*You go*
Il/Elle/On fait	*He/She/One does*	Il/Elle/On va	*He/She/One goes*
Nous faisons	*We do*	Nous allons	*We go*
Vous faites	*You do (form/pl)*	Vous allez	*You go (form/pl)*
Ils/Elles font	*They do*	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*

Asia
Middle East
Geography

Tier 2 & 3 Vocab	Definition
Development	The improvement of a country through economic, social & environmental infrastructure
Silk Road	An ancient trade route that linked China to the West & carried goods & culture.
Resources	Valuable natural products that help humans develop & improve their quality of lives. E.g. water, oil, gas, metals, fibres.
Non-renewable resources	Limited sources of energy that are predicted to run out in 80-100 years. These include coal, oil & gas.
Geopolitics	The relationships between different countries to achieve peace or goals.
Soft power	The cultural influence an area has that can be exported to other countries e.g. movies, music & culture.
Hard power	The military power a country holds.
Weapons of Mass Destruction (WoMD)	Weapons such as nuclear, biological or chemical weapons able to cause widespread devastation & loss of life.
Tourism	The operation of holidays & places to interest that generates income for the destinations of choice.

Middle East Politics and Economy:

Gas – this region holds 32% of the world's natural gas.

9/11 – September 11th, 2001, a terrorist attack in the USA by al Qaeda a terrorist organisation led by Osama bin Laden, resulting in the destruction of the World Trade Centre buildings & part of the Pentagon.

WoMD - During the 'War on Terror' it was assumed that Iran had Weapons of Mass Destruction.

Burj Khalifa – The current tallest building in the world, in Dubai at 829m & was completed in 2010. This is a huge tourist destination & has homes & hotels throughout its structure.

Tourism – The Middle East is now focussing development on this area.

Human Features:

Population- 411 million people are estimated to live in the Middle East.

Language – the widest spoken language in the Middle East is Arabic.

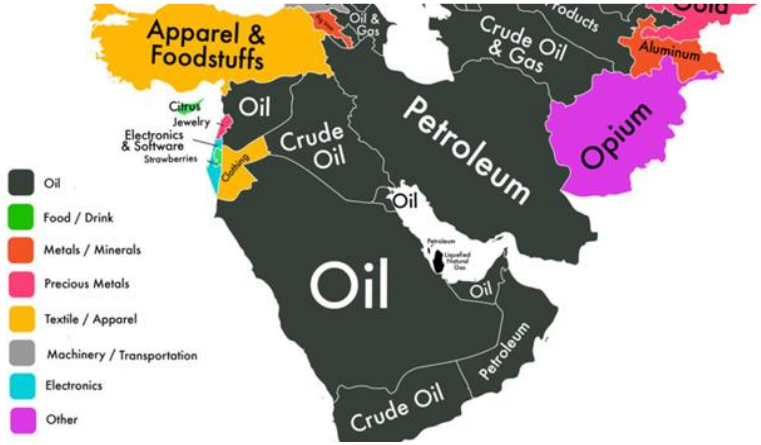
Religions – The Middle East is made up of mainly Muslims & Christians however also is home to smaller religions such as Judaism.

Sunni Muslims – The largest branch of Islam, followed by 85-90% of Muslims globally. They believe that Abu Bakr was next in line & the first caliph after the death of Muhammad.

Shia Muslims – The smaller branch of Islam, Shia Muslims believe that Ali ibn Abi Talib was Muhammad's successor as he was is son-in law & cousin.

Ancient Civilisations – The Middle East developed irrigation systems & animal domestication and is seen as the cradle of civilisation.

Main exports in the Middle East



Mumbai Case Study Geography

Tier 3 Vocabulary	Definition
Urbanisation	The growth of urban (Cities or Towns) areas
Re urbanisation	The movement of people back into a city area that has been previously abandoned
NEE	Newly Emerging Economy, a country that is starting to grow its economy.
Global City	A City that is well connected to the rest of the world
Natural Increase	The difference between a places birth rate and death rate
Rural to Urban Migration	The movement of people from rural areas (countryside) into Urban areas (Cities and Towns).
International Migration	The movement of people from one country to another.
Pull factor	Something that attracts someone to a place
Push factor	Something that makes someone want to leave a place
Slum	Overcrowded, illegal homes made from scrap materials.
Poverty	A person/area lacking in wealth
Quality of Life	A measurement of health and happiness

Few services like doctors, dentists and schools	Access to services like hospitals, dental practices & education
Lack of well-paid jobs	Job opportunities
Unhappy lives	Entertainment facilities
Conflict & natural disasters	Improved living conditions

Bollywood, North Mumbai – Global film industry. Employs 170,000 people.

CBD South Mumbai – Hub of economic growth, HQ for Tata Steel.
The bank of India and Indian stock exchange are located in Mumbai's CBD.

Dharavi – West coast of Mumbai, north of the CBD. Dharavi is a slum with an estimated 1 million people living there.

Dharavi Challenges

Housing – the housing in Dharavi is made out of scrap materials meaning they are unstable. The housing tends to be overcrowded and lacking in basic sanitation e.g. toilets and clean running water meaning diseases spread easily.

Transport - The trains in Dharavi carry 3X the number of passengers they were actually designed for. Due to overcrowding the tracks lie very close to the houses.

Waste – As Dharavi is so overcrowded waste is a big challenge. Some waste ends up on the streets and in the rivers of Dharavi which smell, attracting vermin and therefore diseases. 80% of Dharavi's waste is however recycled by local 'rag pickers'.

Dharavi Strategies

Bhendi Bazaar slum clearance scheme - Replacing slums with sustainable high-rise tower blocks. These had electricity, clean water as well as CCTV for security.

Mumbai Mass metro transit scheme A train that will boast 27 stops and reduce cars on the roads by 650,000. Will be particularly useful to connect commuters to the CBD.

Self Help Schemes Small loans given by both banks and NGO's to help people invest in improving their small business.

History

Slavery

What was the Transatlantic Slave Trade?

The Middle Passage: Stage 2- The transport of men, women and children from West Africa to the Caribbean

- Men, women and children were captured in West Africa and forced to board ships destined for the Americas
- The slave ships (Brookes) were adapted in West Africa to accommodate as many slaves as possible
- The ships would arrive with shackles and chains to detain the slaves with
- Barracoons were erected on the coast to imprison the men, women and children
- Slaves were seen as animals and treated like cargo, they were the property of whites (chattel) to do with what they liked
- Based on the racist attitudes that people from West Africa were uncivilised, a lack of knowledge and understanding of the culture of places like Benin
- The journey itself could take between 6-12 weeks
- Men spent almost the whole journey shackled inside the hull of the boats, laid down, row upon row, with no access to toilets and made to eat laying down- stacked spoonways like cutlery into the hold
- Women were held in a separate compartment and were raped and sexually abused
- Children were allowed to roam free
- Disease was rife, slaves would try and commit suicide, those that died were thrown overboard due to insurance purposes

Tiered Vocabulary

Triangular trade	A system of trading goods between three countries that relies on the labour of slaves
Middle passage	The transport of men, women and children between West Africa and the Americas
Commodities	Goods that are transported e.g. coffee
Plantations	Large farms that slaves worked on to produce commodities such as cotton, sugar and tobacco

Passive resistance	Used to refer to the underhand methods slaves would use to rebel, like working slowly
Active resistance	Used to refer to the violent acts of rebellion such as murdering their owners
Auction	Where a slave was sold
Abolition	The time period when slavery was stopped (abolished) as white people started to rebel against slavery

AUCTIONS

- Once in America slaves were sold to work on the plantations.
- Slaves were prepared for auction by being cleaned, their bruises were covered with tar and they were arranged into groups by price
- Families would be sold for more, strong men would be needed for heavy work on the plantations, women were needed to reproduce and children were attractive as they could be easily taught and manipulated into plantation ways
- Slaves were branded to prevent them from being able to run away

Highest bidder

- Slaves were brought up to a podium where the auctioneer would let the buyers inspect the slaves first
- General health and strength, physical condition was checked and mouths opened to inspect teeth and gums for any sign of disease
- Slaves would be then sold to the person who bidded the most for them

Grab and Go

- Buyers would buy one ticket
- When the sale opened they were allowed into the pen to grab any or all of the slaves they wanted

History

Life as a Slave

FREE TIME
- Very little, some were given one day a month, some were given every Sunday
- Time was spent mending huts, making pots and pans and relaxing
- Some had a garden to grow vegetables
- Not allowed to read or write
- Could go to church
- Sang as they worked
- Used songs to plan rebellions

FOOD
- Weekly rations of salt herrings or mackerel, sweet potato and maize, sometimes salted West Indian turtle
- Slaves would gather wild food to add to their diets
- Some slaves were given small plots of land to farm and could grow their own vegetables
- Land given was poor quality and they were often subject to starvation
- Slaves would be whipped if caught stealing
- Had to make their own pots and pans, some would use hollowed out pumpkins

HOUSING
- Sometimes owners provided huts, sometimes the slaves had to build their own
- Cramped- up to 10 people shared one hut
- Very little furniture and beds were made of straw or rags
- Slaves who worked in the plantation house had better conditions as they were given better clothes and food

CLOTHING
- Clothes were provided once or twice a year
- Clothes were rough, uncomfortable and not very warm
- Shoes usually lasted a few weeks
- Most slaves wore their clothes out
- They were given a summer and winter outfit that cost very little
- Children who weren't working were given few clothes and were often seen naked until the next allowance came round
- Forcing a slave to walk around naked was sometimes used as a punishment

Freedom

- Problematic as slaves were now homeless and jobless
- Racism still existed in the whole of the US, even becoming worse as ex slaves were now competing for the same jobs and resources as whites
- Read the timeline below to discover some of the problems slaves faced upon their freedom

American Civil War

- North wanted to abolish slavery
- South wanted to keep slavery
- Southern economy was based on the system of slavery
- Southern states saw it as being dictated to by the Northern states and seceded (separated) from the Northern free states
- North America declared war on the southern states for illegally trying to separate from the United States
- Racist attitudes were common in the Southern states. Southern universities even taught that black people were not as intelligent as white people and that they needed to be kept as slaves for their own good.
- Slavery was seen as a positive good
- Uncle Tom's Cabin (1852) by Harriet Beecher Stowe was a bestseller, especially in the North and educated people about the lives that slaves led, increased abolition

Slave Resistance

Slaves resisted in two main ways:

Passive Resistance
- Underground railroad
- Working slowly
- Pretending to be ill

Active Resistance
- Rebellions - Nat Turner
- Killing or attacking plantation owners
- Rebellions on board ships
- Running away

Olaudah Equiano
He was from Africa before being sold into slavery.

He escaped and moved to Britain. He wrote books about his experiences as a slave.

He could tell people exactly what it was like to be a slave.

Thomas Clarkson
He was from Wisbech, Cambridgeshire.

He visited many ports and went on board some slave ships.

He had an 'Africa Box' full of evidence about the horrors of slavery, which he showed to many people.

William Wilberforce
He was from Kingston-upon-Hill.

He met Granville Sharp and Thomas Clarkson who persuaded him to join the movement.

William was an MP so he gave speeches in Parliament about the anti-slavery movement.

Abolition

Granville Sharp
He was born in Durham.

He became interested in the movement after meeting an ex-slave called Jonathan Strong.

He was involved in legal cases and made people more aware of the horrors of slavery.

Josiah Wedgewood
Born in Staffordshire. He was a potter so he made lots of pottery. He made a brooch with a design of a slave on it. It read 'Am I Not a Man and a Brother?' Many people wore the brooch to show their support for the anti-slavery movement.

YEAR 8 - ALGEBRAIC TECHNIQUES...

@whisto_maths

Brackets, Equations & Inequalities

What do I need to be able to do?

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

- Form Expressions
- Expand and factorise single brackets
- Form and solve equations
- Solve equations with brackets
- Represent inequalities
- Form and solve inequalities

Keywords

Simplify: grouping and combining similar terms
Substitute: replace a variable with a numerical value
Equivalent: something of equal value
Coefficient: a number used to multiply a variable
Product: multiply terms
Highest Common Factor (HCF): the biggest factor (or number that multiples to give a term)
Inequality: an inequality compares who values showing if one is greater than, less than or equal to another

Form expressions

For unknown variables, a letter is normally used in its place

More than – **ADD**
Less than/ difference – **SUBTRACT**

e.g 4 more than t → **t + 4**
8 less than k → **k - 8**

Only similar terms can be grouped together

t, 2t + 1

e.g Find the perimeter of this shape
(Perimeter = length around outside of shape)

t + 2t + 1 + t + 2t + 1 → 6t + 2

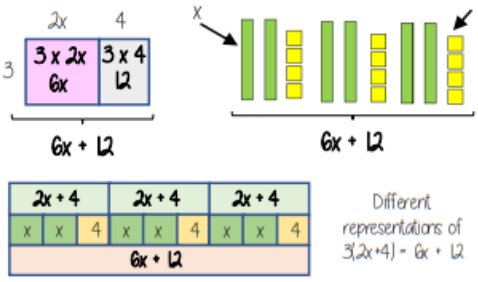
Directed numbers

+ + → +
– – → +
+ – → –
– + → –

e.g a = -5 and b = 2
$a^2 = a \times a = -5 \times -5 = 25$
b + a = 2 + - 5 = **-3**

Multiply single brackets

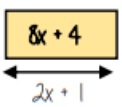
3 (2x + 4)



Different representations of 3(2x+4) = 6x + 12

Factorise into a single bracket

8x + 4



Try and make this the **highest common factor**

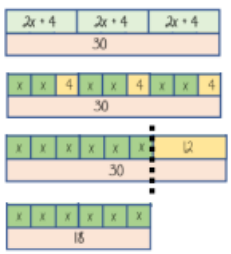
The two values **multiply** together (also the area) of the rectangle

$8x + 4 \equiv 4(2x + 1)$

Note
$8x + 4 \equiv 2(4x + 2)$
This is factorised but the HCF has not been used

Solve equations with brackets

3 (2x + 4) = 30



3 (2x + 4) = 30

Expand the brackets

6x + 12 = 30
- 12 - 12

6x = 18
÷ 6 ÷ 6

x = 3

Substitute to check your answer
This could be negative or a fraction or decimal

Simple Inequalities

< less than
≤ Less than or equal to
> More than
≥ More than or equal to

x < 10
Say this out loud
"x is a value less than 10"

10 > x
Say this out loud
"10 is more than the value"

Note
x< 10 and 10>x represent the same values

x + 2 ≤ 20
"my value + 2 is less than or equal to 20"
x ≤ 18
The biggest the value can be is 18

Form and solve inequalities

Two more than treble my number is greater than 11

Find the possible range of values

Form

x → x3 → +2 → 11

3x + 2 > 11

Solve

x ← -3 ← -2 ← 11

x > 3

Check

This would suggest any value bigger than 3 satisfies the statement
3 x 3 + 2 = 11 ✓ 10 x 3 + 2 = 32 ✓

Algebraic constructs

Expression
A sentence with a minimum of two numbers and one maths operation

Equation
A statement that two things are equal

Term
A single number or variable

Identity
An equation where both sides have variables that cause the same answer includes ≡

Formula
A rule written with all mathematical symbols
e.g area of a rectangle A = b x h

Maths

YEAR 8 - ALGEBRAIC TECHNIQUES...

Sequences

@whisto_maths

What do I need to be able to do?

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

- Generate a sequence from term to term or position to term rules
- Recognise arithmetic sequences and find the nth term
- Recognise geometric sequences and other sequences that arise

Keywords

Sequence: items or numbers put in a pre-decided order
Term: a single number or variable
Position: the place something is located
Linear: the difference between terms increases or decreases (+ or -) by a constant value each time
Non-linear: the difference between terms increases or decreases in different amounts, or by x or ÷
Difference: the gap between two terms
Arithmetic: a sequence where the difference between the terms is constant
Geometric: a sequence where each term is found by multiplying the previous one by a fixed non zero number

Linear and Non Linear Sequences

Linear Sequences – increase by addition or subtraction and the same amount each time
Non-linear Sequences – do not increase by a constant amount – quadratic, geometric and Fibonacci

- Do not plot as straight lines when modelled graphically
- The differences between terms can be found by addition, subtraction, multiplication or division

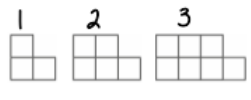
Fibonacci Sequence – look out for this type of sequence

0 1 1 2 3 5 8 ...

Each term is the sum of the previous two terms

Sequence in a table and graphically

Position: the place in the sequence



"The **term** in **position** 3 has 7 squares"

3 5 7

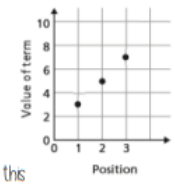
Term: the number or variable
(the number of squares in each image)

In a table

Position	1	2	3
Term	3	5	7

+2 +2

Graphically



Because the terms increase by the same addition each time this is **linear** – as seen in the graph

Sequences from algebraic rules

This is substitution!

$3n + 7$ — This will be linear - note the single power of n. The values increase at a constant rate

$3n^2 + 7$ — This is not linear as there is a power for n

$2n - 5$ → Substitute the number of the term you are looking for in place of 'n'

e.g
1st term = 2 (1) – 5 = -3
2nd term = 2 (2) – 5 = -1
100th term = 2 (100) – 5 = 195

Checking for a term in a sequence

Form an equation

Is 201 in the sequence 3n – 4?

$3n - 4 = 201$ ← Term to check

Algebraic rule

Solving this will find the position of the term in the sequence. ONLY an integer solution can be in the sequence.

Complex algebraic rules

Misconceptions and comparisons

$2n^2$ — 2 times whatever n squared is

e.g
1st term = 2 x 1^2 = 2
2nd term = 2 x 2^2 = 8
100th term = 2 x 100^2 = 2000

$(2n)^2$ — 2 times n then square the answer

e.g
1st term = $(2 \times 1)^2$ = 4
2nd term = $(2 \times 2)^2$ = 16
100th term = $(2 \times 100)^2$ = 40000

$n(n + 5)$

e.g
1st term = 1 (1 + 5) = 6
2nd term = 2 (2 + 5) = 14
100th term = 100 (100 + 5) = 10500

You don't need to expand the expression

H Finding the algebraic rule

This is the 4 times table → 4, 8, 12, 16, 20....

4n

7, 11, 15, 19, 22 ← This has the same constant difference – but is 3 more than the original sequence

4n + 3

This is the constant difference between the terms in the sequence

4n + 3

This is the comparison (difference) between the original and new sequence

Maths

YEAR 8 - ALGEBRAIC TECHNIQUES...

@whisto_maths

Indices

What do I need to be able to do?

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

- Add/ Subtract expressions with indices
- Multiply expressions with indices
- Divide expressions with indices
- Know the addition law for indices
- Know the subtraction law for indices

Keywords

Base: The number that gets multiplied by a power
Power: The exponent – or the number that tells you how many times to use the number in multiplication
Exponent: The power – or the number that tells you how many times to use the number in multiplication
Indices: The power or the exponent
Coefficient: The number used to multiply a variable
Simplify: To reduce a power to its lowest term
Product: Multiply

Addition/ Subtraction with indices

Coefficient, Power

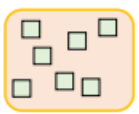
$5x^2 + 4x^4$

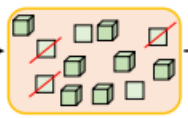
Term, Term

Expression

Each square represents x^2 and each cube represents x^4

Only similar terms can be simplified if they have different powers, they are unlike terms

$5x^2 + 2x^2$ →  → $7x^2$

$5x^2 + 6x^4 - 3x^2 + x^4$ →  → $2x^2 + 7x^4$

Multiply expressions with indices

$4b \times 3a$
$\equiv 4 \times b \times 3 \times a$
$\equiv 4 \times 3 \times b \times a$
$\equiv 12ab$

$5t \times 9t$
$\equiv 5 \times t \times 9 \times t$
$\equiv 5 \times 9 \times t \times t$
$\equiv 45t^2$

$2b^4 \times 3b^2$
$\equiv 2 \times b \times b \times b \times b \times 3 \times b \times b$
$\equiv 2 \times 3 \times b \times b \times b \times b \times b \times b$
$\equiv 6b^6$

There are often misconceptions with this calculation but break down the powers

Addition/ Subtraction laws for indices

$3^5 \times 3^2 = (3 \times 3 \times 3 \times 3 \times 3) \times (3 \times 3) \rightarrow 3^7$

The base number is all the same so the terms can be simplified

Addition law for indices

$$a^m \times a^n = a^{m+n}$$

$3^5 \div 3^2 \rightarrow 3^3$

$\frac{3 \times 3 \times 3 \times 3 \times 3}{3 \times 3} \rightarrow \frac{3^3}{3^0} \rightarrow \frac{3^3}{1}$

Subtraction law for indices

$$a^m \div a^n = a^{m-n}$$

Divide expressions with indices

$\frac{24}{36} \rightarrow \frac{2 \times 2 \times 2 \times 3}{2 \times 3 \times 2 \times 3} \rightarrow \frac{2}{3}$

$\frac{5a^3b^2}{15ab^6} \rightarrow \frac{5 \times a \times a \times a \times b \times b}{3 \times 5 \times a \times b \times b \times b \times b \times b} \rightarrow \frac{a^2}{3b^4}$

Cross cancelling factors shows cancels the expression

$\frac{23a^7y^2}{5db^6}$

This expression cannot be divided (cancelled down) because there are no common factors or similar terms

Maths

Music

Year 8 Music Term 3

Year 8:Music: African rhythms

The **3 beat Kuku rhythm** comes from **Guinea in West Africa.** It is a lively drumming pattern traditionally played by **women to celebrate after fishing.**

It forms part of **Malinke culture**, where music and story-telling **bring people together.**

Below – Kuku rhythm with cross rhythm beneath.

Tap and count beats

Right-hand Kuku

When ready, add Left-hand Cross - rhythm

Playing the Moribayassa rhythm

The 4 beat **Moribayassa rhythm** comes from the **Mandinka people** in **Guinea in West Africa.**

A **fast, exciting rhythm**, played by the **Mandinkan women** to **celebrate overcoming struggles.**

A powerful **symbol** of **resilience** and **hope** with its **vibrant** energy.

Tap and count beats

Playing the Kpanlogo rhythm

The **Kpanlogo rhythm** (**2** bars of **4** beats) comes from the **Ga people** in **Ghana** in **West Africa-** they are known for their **rich culture,** including '**fantasy coffins**' which **celebrate** the **life** of the person.

The **Kpanlogo** is a **celebration** of **youthful energy, creativity & community spirit** with a **fast syncopated rhythm** for **dancers.**

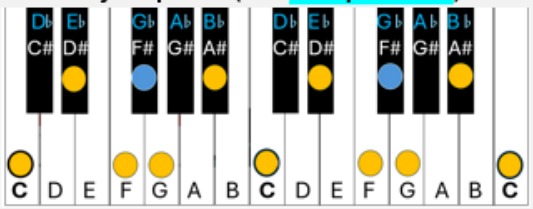
A cross rhythm with syncopation Tap and count beats

Applying Moribayassa to melodies

African rhythms are behind a lot of great melodies in popular, film & orchestral music.

Use the blues scale to provide notes for inspiration – and create several riffs that exactly follow the Moribayassa rhythm.

Use a keyboard or download a keyboard app on your phone (like mini piano lite).



Combining African rhythms

Experiment by tapping & repeating the following -

1 bar of Kuku plus 1 bar of Moribayassa

2 bars of Moribayassa and the Kpanlogo

6 bars of Kuku, 2 bars of Moribayassa & the Kpanlogo.

African rhythms with your music

To **help** you with your piece, use your **phone app** to create **melodies** with cross rhythms

Use no more than 3 notes to create tunes from the blues scale for the following combinations.

Kpanlogo + 4 bars of Kuku

Kpanlogo + 2 bars of Moribayassa

PE

Year 8 Physical Education Term 3

1 Passing and Receiving

Use the **inside of the foot** for a short, accurate pass. When receiving, use the sole or inside of the foot to **control the ball** and prepare for the next move. Look up before passing to find space and teammates.

Football

2 Dribbling and Ball Control

Use small touches with the **laces or outside of the foot** to move with the ball. Keep the ball close and under control, especially in tight spaces. Keep your head up to look for space and opponents..

Football

3 Shooting and Finishing

Use the **laces** for power and the **inside of the foot** for accuracy. Strike the ball cleanly, plant your non-kicking foot next to it, and follow through towards the target. Aim for corners of the goal.

Football

4 Game Play and Rules

Understand the **basic rules** (kick-offs, throw-ins, fouls, offside). Learn **team positions** (defenders, midfielders, attackers, goalkeeper) and **tactical play** like spacing and passing into space.

Football

5 Balances and Shapes

Learn to hold basic **balances** like the **front support, dish, arch, and arabesque**. Focus on **body tension**, straight lines, and stillness. Perform individually or in pairs.

Gymnastics

6 Travel & Transitions

Use a range of movement to travel across a mat or apparatus – including **jumps, rolls (e.g. log, forward roll), and steps**. Link movements smoothly using

Gymnastics

Science

Keywords

Inherited characteristics	Features that are passed from parents to offspring.
Allele	The form of a gene (e.g. an allele for the hair colour gene might be blonde, or brown etc).
Dominant	The allele that <u>will</u> show up. (Written as a CAPITAL letter eg B for brown)
Recessive	The allele that <u>does not</u> show up if there's a dominant allele too. (Written as a lowercase letter eg b for blonde)
Genotype	Genetic makeup of an individual for a particular characteristic eg Dd
Phenotype	Physical appearance eg dimples or no dimples, black fur or brown fur.

Variation

Variation is the differences in characteristics between individual organisms.

There are 2 types of variation:

<u>1. Genetic Variation:</u> Genes control the development of characteristics. Eg, eye colour.

<u>2. Environmental Variation:</u> Characteristics may be changed by the environment. Eg, personality.

Genetic Modification

Genetic modification is the modification of an organism's characteristics by manipulating its genetic material.

<u>Examples:</u>
- Modifying bacteria to produce insulin for human use.
- Modifying rice to contain more vitamin A to reduce deficiencies in developing countries.
- Modifying vegetables to have a longer shelf life.

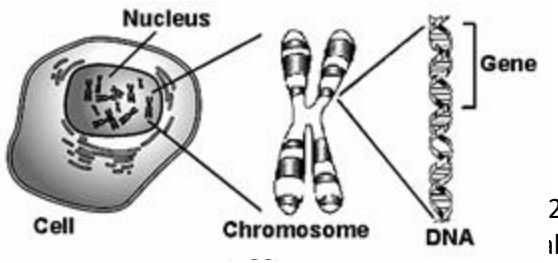
Genetics

Our genetic information is stored inside the nucleus of all cells.

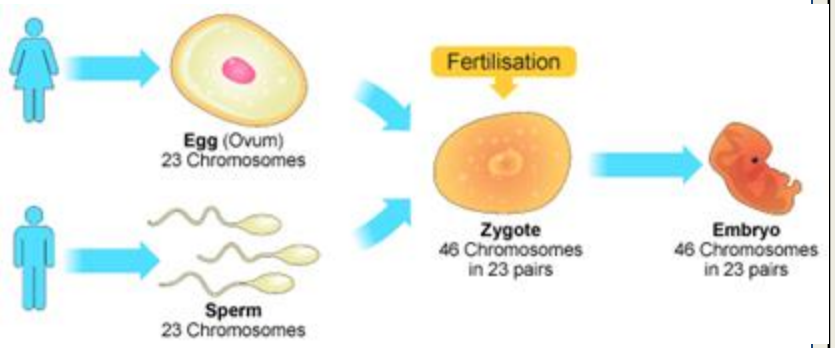
DNA consists of two long strands wound together in a double helix structure.

In our cells, long DNA strands form structures called chromosomes.

A gene is a specific section of a chromosome (eg. the gene for eye colour).



Humans get 23 chromosomes 23 ake an embryo with 23 pairs of chromosomes.



Inheritance

Chemical Symbols and Equations

Key definitions:

Molecule:	2 or more atoms bonded together	Compound:	Substance made from 2 or more types of atom bonded together
Element:	Substance made of 1 type of atom	Isotopes:	2 atoms with the same number of protons and different numbers of neutrons
Solution:	A mixture of a liquid (solvent) and a soluble solid (solute)	Mixture:	2 or more substances in the same place but not bonded together

Separating mixtures:

Filtration	Separates an insoluble solid from a liquid
Crystallisation	Separating the solute (dissolved solid) from a solution
Distillation	Separates the solvent (liquid) from a solution
Fractional distillation	Separates miscible liquids because they have different boiling points.
Chromatography	Separates soluble substances using a solvent

State symbols

- (s) -solid
- (l) - liquid
- (aq) - aqueous, dissolved a solution
- (g) - gas

Chemical Equations

General: Reatant(s) → Product(s)

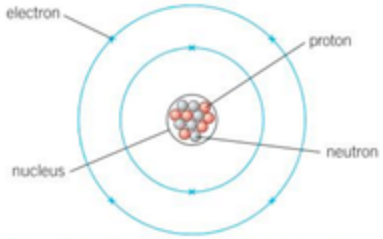
Example:

Word equation: Magnesium + oxygen → magnesium oxide

Symbol Equation: $2Mg_{(s)} + O_{2(g)} \rightarrow 2MgO_{(s)}$

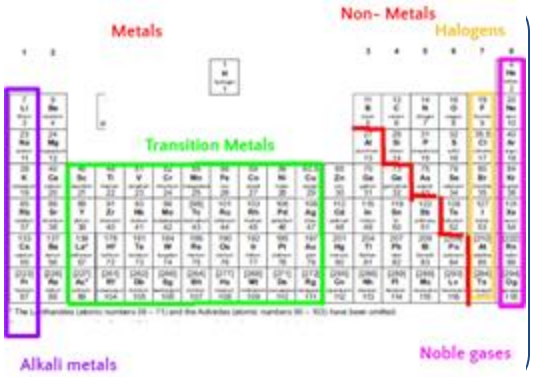
Particle diagram: Mg Mg + O O → Mg O Mg O

Structure of the atom:



Subatomic particle	Relative charge	Relative mass	Location
Proton	+	1	Nucleus
Neutron	nil	1	Nucleus
Electron	-	Almost 0	Orbiting the nucleus

The Periodic Table



The law of conservation of mass

Atoms are not created or destroyed during reactions so:

Mass of reactants = mass of products