

Maidenhill School Knowledge Organiser

Year 9 – Term 5



Be kind, Aspire, Persevere, Achieve

Name:

Tutor: 9

Planner



Week 1	Notes
Monday 13 th April	
Tuesday 14 th April	
Wednesday 15 th April	
Thursday 16 th April	
Friday 17 th April	
Week 2	Notes
Monday 20 th April	
Tuesday 21 st April	
Wednesday 22 nd April	
Thursday 23 rd April	Y9 Parents' Evening 4-6.30pm
Friday 24 th April	Decision form opens

Week 1	Notes
Monday 27 th April	
Tuesday 28 th April	
Wednesday 29 th April	
Thursday 30 th April	
Friday 1 st May	Decision form deadline
Week 2	Notes
Monday 4 th May	INSET
Tuesday 5 th May	
Wednesday 6 th May	
Thursday 7 th May	
Friday 8 th May	



Week 1	Notes
Monday 11 th May	
Tuesday 12 th May	
Wednesday 13 th May	
Thursday 14 th May	
Friday 15 th May	
Week 2	Notes
Monday 18 th May	
Tuesday 19 th May	
Wednesday 20 th May	
Thursday 21 st May	
Friday 22 nd May	

Self-certification / Out of lessons



Self-certification

Every student is entitled to self-certify to go to the toilet on 2 occasions each term, when they do not have a medical exemption (this is issued by school only, in conjunction with parents). This will equate to 12 opportunities a year.

Sign below and show to your teacher. If you have a reason that requires this page to be refreshed before the end of term, please speak to your Head of Year.

Date	Time	Student signature

Insert medical exemption here (Head of Year)
Review/end date:




Student out of lesson record

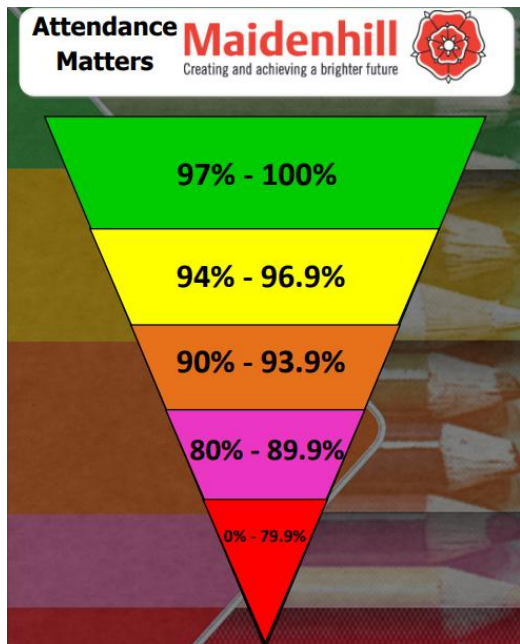
Date and time	Reason	Staff signature

Have a problem?
Worried about someone or something?
Need someone to talk to? Scan the QR code and let us know.

Reporting your concerns



Attendance Matters



Attendance Groups

Green	Expected Attendance
Yellow	Risk of Underachievement
Amber	Serious Risk of Underachievement
Pink	Severe Risk of Underachievement (PA)
Red	Extreme Risk (PA)



Personal Attendance Record

Week	Monday	Tuesday	Wednesday	Thursday	Friday	%	Colour	↑ → ↓
1								
2								
3								
4								
5								
6								

Home School Agreement and uniform expectations



As a student of the school I will:

- Attend school every day and on time
- Represent the school in a positive way on my way to and from school
- Wear the correct school uniform smartly at all times
- Ensure I have downloaded the ClassCharts app and actively use the platform so that I am up to date with notifications regarding my behaviour, attendance, homework and detentions
- Follow the "Maidenhill Expectations" for all students regarding their Behaviour for Learning and uphold the school's expectations to 'Be kind, Aspire, Persevere and Achieve'
- Not use my mobile phone in school
- Go to reception if I need to contact home
- Be polite and considerate to all members of the school community
- Ensure that my behaviour has a positive impact on other students' learning and progress
- Refuse to take part in bullying or anti-social behaviour, including on social media
- Take responsibility for my own learning and actively participate in lessons
- Actively seek ways to improve my work and respond effectively to feedback
- Complete all my classwork and homework to the best of my ability and on time
- Respect the environment of the school and its neighbourhood, and help to keep it clean and tidy, free from litter and graffiti
- Represent the school in a positive way in the local community and when participating in school activities or visits, and on social media
- Talk with my parent(s)/carer(s) and school staff about any concerns in school
- Pass any written correspondence to my parents'/carers' on the day they are issued
- Interact positively with any school social media platforms.

Student Signature

Maidenhill Uniform

- ❖ Maidenhill school blazer needed at all times
- ❖ Maidenhill school tie
- ❖ Long or short sleeved plain white shirt, **tucked in when in the school building**
- ❖ Plain black, smart, tailored trousers
- ❖ Footwear should be a shoe and not a boot, and entirely black
- ❖ White, grey or black socks with no logos
- ❖ Black or nude tights. No patterns.
- ❖ Optional
 - Maidenhill skirt
 - Maidenhill shorts
 - Simple black belt
 - Maidenhill jumper



- ❖ Jewellery must be easily removed for practical lessons. Earrings must be studs and not dangle. Necklaces should be underneath the shirt
- ❖ Make-up should be discreet
- ❖ Hair must not be of extreme style or colour. Long hair should be tied back for health and safety reasons in certain subjects



Maidenhill PE Uniform

- ❖ **NO JEWELLERY**
- ❖ Red Maidenhill PE polo shirt
- ❖ Red Maidenhill hooded jumper
- ❖ Optional Rugby shirt
- ❖ Options for the lower half:
 - Plain black shorts with less than 5cm logos
 - Black tracksuit bottoms with less than 5cm logos
 - Maidenhill leggings
 - Maidenhill skort
 - Plain black leggings with no logos
- ❖ Socks
 - White or black
 - Red needed for all fixtures
- ❖ Shoes
 - Suitable trainers
 - Optional studded boots for football/rugby



Equipment and acceptable use of the school ICT facilities



Equipment

You should be fully equipped for every lesson. Make sure you have the correct books for each lesson. It is always a good idea to pack your school bag the night before. Remember to check your timetable first. Here is a useful checklist.

Essential requirements

- At least 2 black pens
- Green pen
- 2 pencils and 2 x 2b or 4b pencils for Art, Design and Nutrition
- Ruler
- Rubber
- Pencil sharpener
- Scientific calculator
- Whiteboard and whiteboard pen
- Headphones
- Reading book
- Plastic wallet and knowledge organiser

Student property

You are expected to have your clothing marked with your name and, wherever possible, all other items of property which you are expected to bring to school with you such as bags, pencil cases and PE kit named too.

Money, bus passes and other similar items of value should always be carried with you and never left in bags around the school at break and lunchtimes.

You have the opportunity, if you wish, to hand valuables to a teacher before PE and arrangements will be made for safe keeping. The changing rooms are not always locked during lessons. If you do not do this, the school cannot guarantee full security for your property.

Network rules

Never share your password with anyone – not even your best friend – if you suspect that someone knows it, change it or see an ICT technician as soon as possible

Never share your user area with anyone – email files to a friend or home as an attachment, or use Office 365 “One Drive”

Always log off before leaving a computer

Never tamper with ICT equipment, if your PC or laptop is damaged or not working properly, please inform a member of staff immediately. DO NOT disconnect, reconnect or move or swap any cables at any time

Never give a stranger any information about you or your home

Always communicate with strangers politely – ask a teacher to check before sending

Don't suffer bullying – report and give a printout of any email or other material that offends you to a teacher

Avoid the spreading of computer viruses – from the internet or home. Keep your home virus checking software up to date

Do not attempt to download or install software – use only the software provided

Always give credit for information obtained from the internet

Do not eat or drink close to electronic equipment or in any computer room

Use your printing credits with care – extra print credits in any one week can only be obtained through the permission of a teacher whose work you need to print

The use of the internet at school must be in support of learning. The use of all chat systems is strictly forbidden. Inappropriate use will result in access being withdrawn. A log of all internet access and activity is monitored throughout the day by the network staff so misuse of the system can be quickly identified and dealt with.

To access email from home, log on to rmunify.com. School emails should only be used to communicate with staff/students about school related matters. You can also speak with staff via the message function on ClassCharts.

Visit the website ‘[thinkyouknow](http://thinkyouknow.co.uk)’ for essential and excellent advice on using the internet safely outside of school.





Behaviour for Learning

At Maidenhill School we believe that students have the right to learn, and teachers have the right to teach.

When you make good choices and follow the rules, you will be rewarded.

Rewards

You can collect positive reward points in lessons and for completing quality homework. Rewards can be spent in the reward shop at the end of each term on vouchers, chocolate, stationery and much more! We have end of term rewards and end of year rewards in the form of our activities week, all to recognise the positivity and hard work you show each and every day.

If you make poor choices and do not follow the rules, then a clear set of consequences will follow.

Consequences

C2 – This is a verbal warning

C3 – Issued with a BFL detention of 40mins

C3r – This is when you are sent out of a lesson, and you must move to the referral room. You will be issued with a 55mins detention. Those students that are removed from lesson five times in a term, will then receive a 1 day internal isolation in the refocus room for every subsequent C3r. This will be reset at the start of the next term

C4 – Isolation in the refocus room

C4e – Educated off site at an alternative provision

C5 – Fixed term suspension

C5 Exclusions

If a student receives a C5 they will be excluded from school for a fixed period of time.

Incidents for which a students may be excluded include:

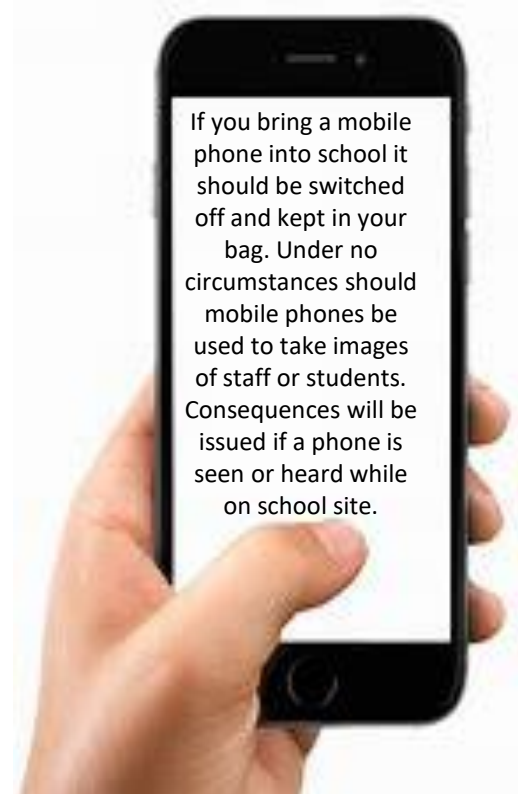
- In possession, under the influence of or dealing in illegal drugs. This also extends to alcohol and other toxic substances
- Serious physical or verbal aggression towards others
- Serious rudeness, defiance, threatening behaviour or inappropriate language towards a member of the school staff
- Anti-social behaviour such as theft or damage to property
- A build-up of incidents which are unacceptable and contravene school standards
- Repeated disruption and defiance which has disturbed the learning of other students
- Persistent poor behaviour

If a student persistently behaves in an unacceptable manner, this could lead to a permanent exclusion.

In exceptional circumstances, it is appropriate for the Headteacher to permanently exclude a student for a first offence. These might include such things as:

- Serious actual or threatened violence against another individual
- Sexual abuse or assault
- Supplying an illegal drug
- Carrying an offensive weapon

The school can take no responsibility for valuable items brought into school by students (so students are advised not to bring in expensive items).



The following items are not allowed to be brought into school:

- Alcohol and drugs
- Knives and other weapons
- Fireworks
- Cigarettes/e-cigarettes, vapes, tobacco, matches and lighters
- Tippex or other correcting fluids
- Aerosols
- Illegal substances
- Energy/fizzy drinks

Smoking is not permitted in school or on the way to and from school. Students found to be smoking/vaping or in possession of smoking/vaping equipment will receive a significant sanction.



What is bullying?

Bullying is when one person or a group of people deliberately hurt, threaten or frighten someone over a period of time. It can be physical; like punching or kicking, or emotional like teasing or calling names.



Bullying includes repeated:

- Hitting
- Insults
- Cruel nicknames
- Making threats
- Isolating someone
- Damaging, taking or hiding property
- Writing or telling lies about someone
- Sending cruel text messages, video messages or emails
- Spreading rumours
- Being unfriendly and turning others against someone
- Posting inappropriate comments on websites and social media

Types

- Physical
- Cyber
- Verbal
- Emotional
- Prejudice based

If you are being bullied, do not suffer in silence:

- Be firm – look the bully in the eye and tell them to stop
- Get away from the situation as quickly as possible
- Tell an adult, peer or friend what has happened, straight away
- If you are scared to tell someone, get a friend to go with you
- Keep on speaking up until someone listens
- Don't blame yourself for what has happened

If you are being bullied, you can expect that:

- You will be listened to and taken seriously
- Action will be taken to help stop the bullying
- You will be involved in the process of deciding what action to take to stop the bullying and any worries that you may have will be listened to and respected
- You will be given the opportunity to talk about the way that the bullying has made you feel and to find strategies to deal with these feelings and to understand and cope with bullying behaviour
- If you are ever in fear of your physical safety, staff will take immediate action to keep you safe

When you are talking about bullying, be clear about:

- When it started
- What has happened to you
- How often it has happened
- Who was involved
- Who saw what was happening
- Where and when it happened
- What you have already done about it

Tutor time – Maths Task 1



Question 1 Factorise $55 + 35x$	Question 2 Factorise $12 - 8x$	Question 3 Simplify $a^2 \times b \times b^4 \times b$	Question 4 Simplify $a^3 \times b \times a^3 \times b$
Question 5 Work out $64.7 - 8.74 =$	Question 6 Work out $8.2 \times 1.9 =$	Question 7 Work out $\frac{3}{4} + \frac{1}{2} =$	Question 8 Work out $\frac{1}{2} - \frac{2}{10} =$
Question 9 Find the nth term: 12, 22, 32, 42,...	Question 10 Find the nth term: 13, 20, 27, 34,...	Question 11 Work out $9.1 \div 0.7 =$	Question 12 Work out $8 \div 0.4 =$
Question 13 Solve $4(5x - 3) = 28$	Question 14 Solve $6x + 6 = -6$	Question 15 Divide £90 in the ratio 3 : 7	Question 16 Divide £48 in the ratio 3 : 5
Question 17 Express 95% as a fraction in its lowest form	Question 18 Express $\frac{11}{25}$ as a percentage	Question 19 Find the gradient of the line $y = -3x - 2$	Question 20 Find the gradient of the line $y = -4x + 5$

SKILLS CHECK



Score

Tutor time – Maths Task 2



Question 1 Factorise $22 + 10x$	Question 2 Factorise $15x + 10$	Question 3 Simplify $a^4x b \times b \times a^4$	Question 4 Simplify $a^3 \times b \times a^4 \times b$
Question 5 Work out $81.8 + 0.8 =$	Question 6 Work out $13.2 \times 3.3 =$	Question 7 Work out $\frac{3}{4} + \frac{2}{3} =$	Question 8 Work out $\frac{1}{2} - \frac{1}{5} =$
Question 9 Find the nth term: 1, 5, 9, 13,...	Question 10 Find the nth term: 9, 17, 25, 33,...	Question 11 Work out $18 \div 0.9 =$	Question 12 Work out $3.6 \div 0.3 =$
Question 13 Solve $8x - 9 = -1$	Question 14 Solve $3(3x - 5) = 21$	Question 15 Divide £64 in the ratio 5 : 11	Question 16 Divide £40 in the ratio 3 : 5
Question 17 Express 90% as a fraction in its lowest form	Question 18 Express $\frac{7}{20}$ as a percentage	Question 19 Find the gradient of the line $y = 4x - 3$	Question 20 Find the gradient of the line $y = -2x + 3$

SKILLS CHECK



Score



Question 1 Factorise $12x - 66$	Question 2 Factorise $55x + 65$	Question 3 Simplify $b^2 \times b \times a^2 \times a$	Question 4 Simplify $b^4 \times a \times b^4 \times b$
Question 5 Work out $43.5 - 0.91 =$	Question 6 Work out $29 \times 8.6 =$	Question 7 Work out $\frac{1}{3} + \frac{1}{2} =$	Question 8 Work out $\frac{3}{4} - \frac{1}{2} =$
Question 9 Find the nth term: 9, 21, 33, 45,...	Question 10 Find the nth term: 7, 19, 31, 43,...	Question 11 Work out $5 \div 1 =$	Question 12 Work out $3.9 \div 0.3 =$
Question 13 Solve $5x - 3 = -3$	Question 14 Solve $8x + 5 = 4x - 11$	Question 15 Divide £88 in the ratio 1 : 7	Question 16 Divide £176 in the ratio 5 : 11
Question 17 Express 19% as a fraction in its lowest form	Question 18 Express $\frac{1}{5}$ as a percentage	Question 19 Find the gradient of the line $y = -4x + 4$	Question 20 Find the gradient of the line $y = 3x + 10$

SKILLS CHECK



Score



Question 1 Factorise $35x + 55$	Question 2 Factorise $30 + 66x$	Question 3 Simplify $a^3 \times b \times b^2 \times b$	Question 4 Simplify $a \times b \times b^4 \times b$
Question 5 Work out $7.69 - 7.15 =$	Question 6 Work out $5.6 \times 4.1 =$	Question 7 Work out $\frac{3}{10} + \frac{2}{3} =$	Question 8 Work out $\frac{7}{9} - \frac{1}{2} =$
Question 9 Find the nth term: 9, 18, 27, 36,...	Question 10 Find the nth term: 18, 30, 42, 54,...	Question 11 Work out $4 \div 0.5 =$	Question 12 Work out $2.2 \div 0.2 =$
Question 13 Solve $11x - 5 = -5$	Question 14 Solve $4x - 4 = 3x + 2$	Question 15 Divide £12 in the ratio 3 : 1	Question 16 Divide £60 in the ratio 1 : 5
Question 17 Express 85% as a fraction in its lowest form	Question 18 Express $\frac{13}{20}$ as a percentage	Question 19 Find the gradient of the line $y = x - 5$	Question 20 Find the gradient of the line $y = x + 10$

SKILLS CHECK



Score



Task 1

Look at the words below. They are associated with the play, Macbeth. Match the word to the correct definition.

Word	Definition
Ambition	Controlling or influencing someone unfairly.
Tragedy	Something beyond normal human understanding (e.g. witches, ghosts).
Prophecy	A play that ends in disaster.
Supernatural	The idea that events are controlled by destiny rather than choice.
Guilt	A prediction about the future.
Manipulation	A cruel and unfair ruler.
Tyrant	Feeling bad because you have done something wrong.
Fate	A strong desire to achieve power or success.



Task 2

Read the passage below and answer the comprehension questions:

In the play *Macbeth* by William Shakespeare, Macbeth begins as a brave and loyal soldier. After winning a battle for Scotland, he is praised by King Duncan and respected by others. However, when three witches tell him he will one day become king, a dangerous idea begins to grow in his mind. Although he is unsure at first, his ambition slowly becomes stronger. Encouraged by Lady Macbeth, he decides to murder King Duncan in order to take the throne. After the crime, Macbeth is filled with guilt and fear. Instead of feeling powerful, he becomes paranoid and begins to make more violent decisions to protect his position as king.

1. How is Macbeth presented at the beginning of the passage?
2. What effect do the witches have on Macbeth?
2. Why does Macbeth continue to make violent decisions after becoming king?



Task 3

Here is a powerful quote showing **guilt** in *Macbeth* by William Shakespeare. Language map it, making notes on what this suggests about how Macbeth is feeling:

**Will all great Neptune's ocean wash this blood
Clean from my hand?"** (Act 2, Scene 2)

Consider:

How is Macbeth feeling?

What crime has he committed that makes him feel this way?

Who is Neptune and why is this important?

What does the blood symbolise?

Is he naturally evil? Explain.



Your Knowledge Organiser for each subject can be found in the following order:

1. English
2. Mathematics
3. Science
4. Art, Design, Nutrition and Photography (on rotation)
5. Computing
6. Drama
7. French
8. Geography
9. History
10. Music
11. Physical Education
12. Religious Studies

Expectations

You are responsible for looking after your Knowledge Organisers.

You should:

- ✓ *Memorise and build upon the information in each Knowledge Organiser.*
- ✓ *Keep them neat and tidy.*
- ✓ *Bring them to school each day.*
- ✓ *Refer to them in lessons and your homework tasks.*

100 Colorful Words to Use in Place of "Said"

Rhyme
Rhyming words occur very often in poems, sometimes in patterns.

Rhythm
The flow of a poem, often effected by the punctuation and shape of a poem.

Tone and Pace
Have a big impact on rhythm and are effected by punctuation.

Onomatopoeia
When a word imitates the sound it makes (e.g. BANG, SPLASH)

POETIC TECHNIQUES

Repetition
When words and phrases are repeated multiple times.

Similes
Compares two different things, using the words "like" or "as".

Metaphors
Identifies something as being the same as something else.

Alliterations
More than one word beginning with the same letter (close together in text).

admitted
advised
agreed
assured
avowed



began
bragged
chatted
cheered
commented
convinced
crowded
exclaimed
gushed
instructed

bawled
complained
confessed
cried
croaked
denied
fretted
gaspd
groaned
gurgled
moaned
mumbled
objected
pleaded
protested
sniffled
sobbed
squeaked
stammered



argued
barked
bellowed
boasted
boomed
coughed
demanded
griped
growled
hissed
insisted
interrupted
jeered
ranted
raved

added
asked
babbled
bargained
blurted
chortled
clucked
explained
grumbled
gulped
grunted
lied
murmured
mused
muttered



LITERARY DEVICE	DEFINITION	EXAMPLE
Simile	A comparison using "like" or "as"	Her eyes were like shining stars
Metaphor	A comparison without using "like" or "as"	Life is a journey
Personification	Giving human qualities to non-human things	The wind whispered through the trees
Hyperbole	An exaggeration for emphasis	I've told you a million times
Alliteration	Repetition of the same sound at the beginning of words	Peter Piper picked a peck of pickled peppers
Onomatopoeia	Words that sound like what they mean	Buzz, hiss, sizzle
Irony	A contrast between what is expected and what actually happens	A fire station burning down
Foreshadowing	Hinting at what will happen later in the story	The ominous music in a horror movie
Symbolism	Using objects or actions to represent ideas or qualities	A dove as a symbol of peace
Imagery	Descriptive language that creates a picture in the reader's mind	The sun set over the ocean, painting the sky with shades of orange and pink

Common Techniques

D DIRECT ADDRESS
A ALLITERATION
F FACT
O OPINION
R RHETORICAL QUESTION
R REPETITION
E EMOTIVE LANGUAGE
S STATISTICS
T THREE (LIST OF)
I IMPERATIVE

Transactional Writing

- Letters
- Reviews
- Reports
- Articles





Conjunctions

Addition

Further
Also
Too
Besides
Finally
Last
Additionally
In addition
Then

Summary

In short
In other word
Anyway
In brief
It seems
Clearly
In sum
After all
In general

Place

There
Here
In the back
Adjacent to
Next to
Nearby
Beyond
Opposite to
At that point

Example

Such as
For one thing
For instance
For example
That is
Specifically
Illustrated by
In particular

Comparison

Equally
A similar ...
Likewise
Similarly
Comparable
As with
Another ... like
In the same way

Time

Meanwhile
Finally
At last
Presently
Currently
In the past
In the meantime
Eventually
Immediately

PUNCTUATION

QUESTION MARK

?

Use at the end of a sentence when asking a question.

EXCLAMATION MARK

!

Use at the end of a sentence to express a strong feeling.

PERIOD

.

Use at the end of a sentence.

COLON

:

Use to introduce a list or a definition.

APOSTROPHE

'

Use in contractions and to show when something belongs to someone.

PARENTHESIS

()

Use to add extra information to a sentence without taking away from the idea.

HYPHEN

-

Use to join separate words to make one word.

SEMICOLON

;

Use to connect subjects and verbs into a single sentence.

COMMA

,

Use to separate parts in a sentence or in a list.

QUOTATIONS

" "

Use around words that are spoken.

ELLIPSIS

...

Use to show suspense or that someone is thinking.

THERE

(Refers to a place)
He went in the door over there.

THEIR

(Shows ownership)
Their cat is the sweetest.

THEY'RE

(A contraction for "they are")
They're going to the movies.

Verbs to sharpen your analysis

THIS SHOWS	THIS SUGGESTS	THIS HIGHLIGHTS	THIS INTERESTS
Demonstrates Reveals Exposes Discloses Uncovers Encapsulates Proves Validates Exhibits Establishes Denotes Displays Flaunts Showcases Presents	Implies Infers Hints at Signifies Connotes Denotes Insinuates Intimates Advocates Poses Conjures Symbolises Points towards Indicates Alludes to	Emphasises Stresses Reinforces Spotlights Underlines Accentuates Underscores Foreshadows Exaggerates Reiterates Magnifies Zeroes in on Promotes Publicises Pinpoints	Fascinates Amuses Satisfies Terrifies Enthrals Enthuses Stimulates Galvanises Animates Rouses Stirs Placates Provokes Deceives Astonishes





1.1 Key Vocabulary

Tyrant – A cruel and oppressive ruler.

Prophecy – A prediction of what will happen in the future.

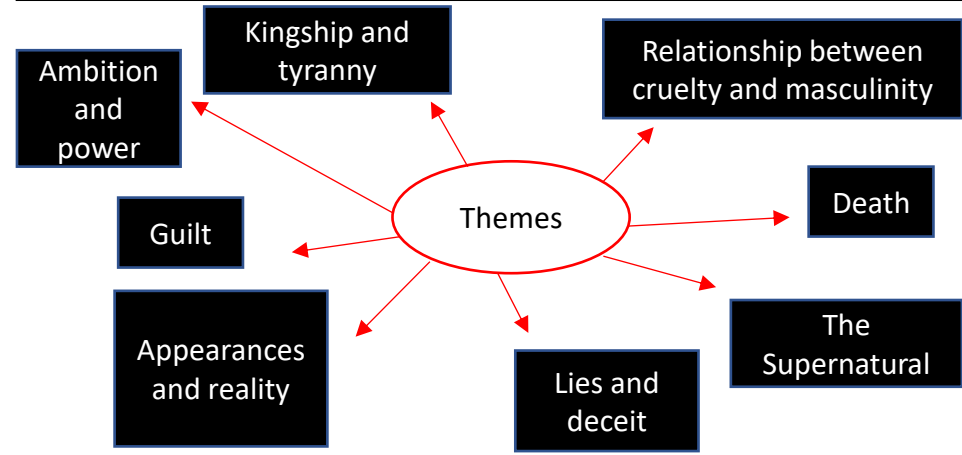
Villain – A character whose evil actions are important to the plot.

Hubris – Excessive pride or self-confidence.

Hamartia – A fatal flaw leading to the downfall of the tragic hero

Regicide – The action of killing a king.

1.2 Themes



1.3 Key Characters

Macbeth	Initially loyal to Duncan, a brave warrior who betrays his king and becomes a stereotypical villain. By the end of the play, he has lost all of those close to him but has regained some pride.	King Duncan	A much-loved king of Scotland. He rewards Macbeth's bravery in battle but is murdered in return. Symbolises good and the divine right of kings
Lady Macbeth	Macbeth's equal, at least in their relationship. Arguably, Lady Macbeth influences her husband to murder the king and seems to be the stronger of the two. Eventually, she succumbs to her guilt and commits suicide.	Malcolm and Donalbain	Duncan's sons and princes of Scotland. They flee after their father is killed. They return to oust Macbeth. Malcolm is crowned king after Macbeth is killed.
Banquo	A fellow general and Macbeth's friend. The Witches prophesise that his descendants will be kings of Scotland. Macbeth has him murdered.	Macduff	The Thane of Fife, Macduff suspects Macbeth of regicide. He leaves Scotland to help Malcolm gather support. He leads the attack against Macbeth and kills him.

1.4 Plot Summary

- Macbeth, and Banquo, defeat the Scottish rebels. After the battle they meet the Witches. They prophesise Macbeth will become Thane of Cawdor and then King of Scotland.
- Lady Macbeth convinces Macbeth to murder King Duncan after she learns of the Witches.
- Macbeth murders King Duncan. He instantly begins to feel guilty.
- Consequently, Macbeth is crowned king.
- Macbeth orders Banquo and Fleance murdered. Fleance escapes.
- At a feast, Macbeth has visions of Banquo's bloody ghost.
- Macbeth seeks out the Witches, who show him four visions.
- Fearing the warning about Macduff, Macbeth has his family murdered. He begins to think he is invincible.
- Dunsinane Castle is attacked. Macbeth refuses to give up, even despite coming to the realisation of the great evil he has done. He ends the play fighting Macduff, despite the Witches warnings.
- Macbeth is decapitated. Malcolm becomes king.

1.5 Flashcard Activities

Flashcards

Simply create with questions on one side and answers on the other side. You can colour code for specific topics and quiz yourself or others.



Post its can be also useful for key words and timelines

Create flashcards for the following activities:

1. Pick a theme from section 1.2 and write the question 'How is the theme of (insert chosen theme) presented in (insert chosen act and scene)?' on one side. On the other side, write down key quotations that link to the theme and explain why they do.
2. Pick a character from section 1.3 and write the question 'How is (insert chosen character) presented in (insert chosen act and scene)?' on one side. On the other side, write down key quotations that link to that character and explain why they do.

1.6 Analysing Extracts



Analyse the short extract below referring to the question. Consider the language used to describe Macbeth and his actions.

How is Macbeth presented in this extract?

Sergeant

For brave Macbeth--well he deserves that name--
Disdaining fortune, with his brandish'd steel,
Which smoked with bloody execution,
Like valour's minion carved out his passage
Till he faced the slave;
Which ne'er shook hands, nor bade farewell to him,
Till he unseam'd him from the nave to the chaps,
And fix'd his head upon our battlements.

DUNCAN

O valiant cousin! worthy gentleman!

Respond below:



Maths Unit 5 – Equations, Inequalities and Sequences

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 multiplies to give a term)
- Inequality:** an inequality compares two values showing if one is greater than, less than or equal to another

Form and solve inequalities

(U759)



Two more than treble my number is greater than 11

Find the possible range of values

Form

$$x \rightarrow x3 \rightarrow +2 \rightarrow 11$$

$$3x + 2 > 11$$

Solve

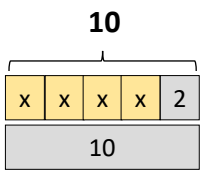
$$x \leftarrow \div 3 \leftarrow -2 \leftarrow 11$$

$$x > 3$$

Check

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

Two-step equations (U325)

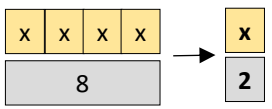


$$4x + 2 = 10$$

Representing the same question (use fact families)

$$10 - 4x = 2$$

Function machine



$$x \rightarrow x4 \rightarrow +2 \rightarrow 10$$

Inverse operations to find x

Simple Inequalities (U759)

- < 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"

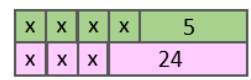
$10 > x$
Say this out loud "10 is more than the value"

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

Unknowns on both sides (U870)

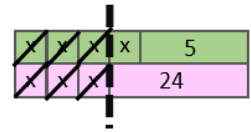
$$4x + 5 = 3x + 24$$

$$-3x \quad -3x$$



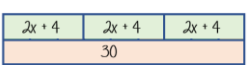
$$x + 5 = 24$$

$$-5 \quad -5$$



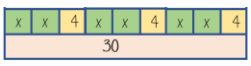
$$x = 19$$

Solve equations with brackets (U325)



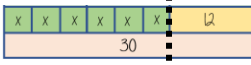
$$3(2x + 4) = 30$$

Expand the brackets



$$6x + 12 = 30$$

$$-12 \quad -12$$



$$6x = 18$$

$$\div 6 \quad \div 6$$

$$\frac{x}{3} \quad x = 3$$

$$x + 2 \leq 20$$

"my value + 2 is less than or equal to 20"

$$x \leq 18$$

The biggest the value can be is 18

Enrichment Opportunities

Luis' Eight



Maths Unit 5 – Equations, Inequalities and Sequences



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
- Geometric:** a sequence where each term is found by multiplying the previous one by a fixed non zero number

Sequences from algebraic rules (U213)

$$2n - 5 \longrightarrow$$

Substitute the number of the term you are looking for in place of 'n'

e.g.

$$1^{\text{st}} \text{ term} = 2(1) - 5 = -3$$

$$2^{\text{nd}} \text{ term} = 2(2) - 5 = -1$$

$$100^{\text{th}} \text{ term} = 2(100) - 5 = 195$$

Checking for a term in a sequence

Is 201 in the sequence $3n - 4$?

Form an equation

Algebraic rule \longrightarrow $3n - 4 = 201$ \longleftarrow Term to check

Solving this will find the position of the term in the sequence.

ONLY an integer solution can be in the sequence.

Finding the algebraic rule (U213)

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

$4n$

7, 11, 15, 19, 22

$4n + 3$
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

Enrichment Opportunities

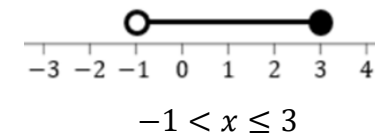
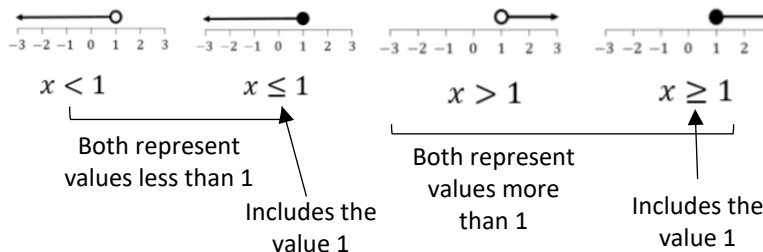
Printing error



Solutions on a number line (U509)

● Includes the value it sits above

○ Does NOT include the value it sits above



This includes the integer values 0,1,2,3



The heart

The heart is the organ that pumps blood around your body. It is made from **cardiac muscle tissue**, which is supplied with oxygen by the **coronary artery**.

Heart rate is controlled by a group of cells in the right atrium that generate electrical impulses, acting as a pacemaker. Artificial pacemakers can be used to control irregular heartbeats.

- red blood cells - bind to oxygen and transport it around the body
- plasma - transports substances and blood cells around the body
- platelets - form blood clots to create barriers to infections
- white blood cells - part of the immune system to defend the body against pathogens

Blood vessels

Vessel	Function	Structure	Diagram
artery	carries blood away from the heart (high pressure)	<ul style="list-style-type: none"> • thick, muscular, and elastic walls • the walls can stretch and withstand high pressure • small lumen 	
vein	carries blood to the heart (low pressure)	<ul style="list-style-type: none"> • have valves to stop blood flowing the wrong way • thin walls • large lumen 	
capillary	<ul style="list-style-type: none"> • carries blood to tissues and cells • connects arteries and veins 	<ul style="list-style-type: none"> • one cell thick - short diffusion distance for substances to move between the blood and tissues (e.g. oxygen into cells and carbon dioxide out) • very narrow lumen 	

Heart issues

Coronary heart disease is caused by a build up of fatty material in the coronary arteries, making them narrow, and reducing blood flow. Stents can be used to help keep the coronary arteries open.

Patients with heart failure often have to use artificial hearts before a donor heart becomes available for a heart transplant.

People with faulty heart **valves** may feel symptoms of breathlessness as valves do not fully open, making the heart less efficient. These can be replaced with biological valves (from animals), or mechanical valves (made from titanium and polymers).

Key terms Make sure you can write a definition for these key terms.

photosynthesis stomata guard cells transpiration translocation
 light intensity temperature humidity wind speed phloem xylem

Double circulatory system

The human circulatory system is described as a **double circulatory system** because blood passes through the heart twice for every circuit around the body:

- the right ventricle pumps blood to the lungs where gas exchange takes place
- the left ventricle pumps blood around the rest of the body.

Tissues in leaves

Leaves are organs because they contain many tissues that work together to perform **photosynthesis**.

- waxy cuticle** makes the leaf waterproof
- upper epidermis**
 - single layer of cells
 - protects against water loss
 - transparent to allow light to pass through
- palisade mesophyll**
 - tightly packed cells
 - lots of chloroplasts to absorb light for photosynthesis
- spongy mesophyll**
 - spherical cells
 - lots of air spaces to allow gases to diffuse quickly
 - large surface area-to-volume ratio to increase gas exchange
- lower epidermis**
- guard cells** control the opening and closing of the stomata
- stomata** tiny openings on the lower surface of the leaf that allow gases to move into and out of the leaf

Stomata

Stomata are tiny openings in the undersides of leaves - this placement reduces water loss through evaporation.

They control gas exchange and water loss from leaves by:

- allowing diffusion of carbon dioxide into the plant for photosynthesis
- allowing diffusion of oxygen out of the plant.

Guard cells are used to open and close the stomata.

When a plant has plenty of water, the guard cells become turgid. The cell wall on the inner surface is very thick, so it cannot stretch as much as the outer surface. So as the guard cells swell up, they curve away from each other, opening the stoma.

Transpiration

Description Water is lost through the stomata by evaporation. This pulls water up from the roots through the **xylem** and is called transpiration. The constant movement of water up the plant is called the **transpiration stream**.

Importance

- provides water to cells to keep them **turgid**
- provides water to cells for photosynthesis
- transports mineral ions to leaves

Specialised tissues

Lungs

When breathing in, air moves:

1. into the body through the mouth and nose
2. down the trachea
3. into the bronchi
4. through the bronchioles
5. into the alveoli (air sacs).

Oxygen then diffuses into the blood in the networks of **capillaries** over the surface of the alveoli.

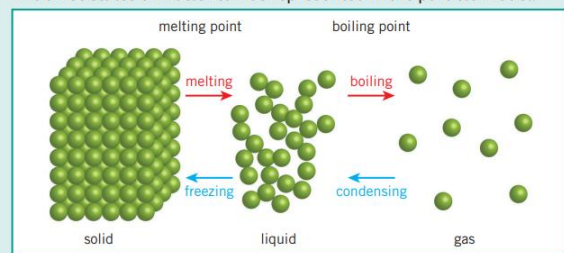
Factors affecting the rate of transpiration

Factor	Effect on transpiration	Because...
temperature	higher temperatures increase the rate of transpiration	water evaporates faster at higher temperatures
humidity	lower humidity increases the rate of transpiration	the drier the air, the steeper the concentration gradient of water molecules between the air and leaf
wind speed	more wind increases the rate of transpiration	wind removes the water vapour quickly, maintaining a steeper concentration gradient
light intensity	higher light intensity increases the rate of transpiration	stomata open wider to let more carbon dioxide into the leaf for photosynthesis



Particle model

The three states of matter can be represented in the particle model.



(HT only) This model assumes that:

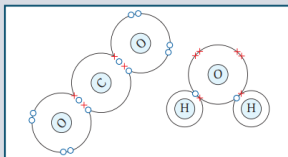
- there are no forces between the particles
- that all particles in a substance are spherical
- that the spheres are solid.

The amount of energy needed to change the state of a substance depends on the forces between the particles. The stronger the forces between the particles, the higher the melting or boiling point of the substance.

Covalent bonding

Atoms can share or transfer electrons to form strong chemical bonds. A **covalent bond** is when electrons are *shared* between **non-metal** atoms. The number of electrons shared depends on how many extra electrons an atom needs to make a full outer shell.

If you include electrons that are shared between atoms, each atom has a full outer shell. **Single bond** = each atom shares one pair of electrons. **Double bond** = each atom shares two pairs of electrons.



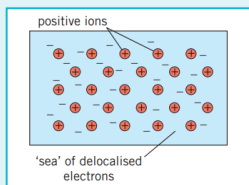
Metals: structure and properties

The atoms that make up metals form layers. The electrons in the outer shells of the atoms are **delocalised** – this means they are free to move through the whole structure.

The positive metal ions are then attracted to these delocalised electrons by the electrostatic force of attraction.

Some important properties of metals are:

- pure metals are **malleable** because the layers can slide over each other
- they are good **conductors** of electricity and of thermal energy because delocalised electrons are free to move through the whole structure
- they have high melting and boiling points because the electrostatic force of attraction between metal ions and delocalised electrons is strong so lots of energy is needed to break it.

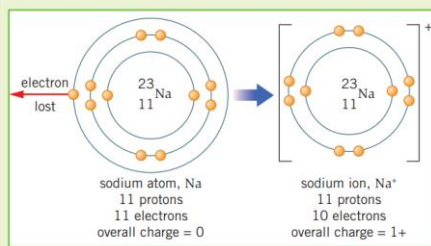


Enrichment Opportunities

<https://teachchemistry.org/classroom-resources/ionic-covalent-bonding-simulation>

Ions

Atoms can gain or lose electrons to give them a full outer shell. The number of protons is then different from the number of electrons. The resulting particle has a charge and is called an **ion**.



Conductivity

Solid ionic substances do not conduct electricity because the ions are fixed in position and not free to carry charge.

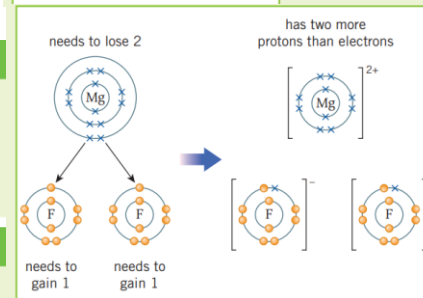
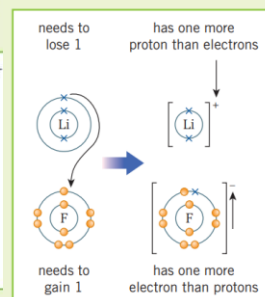
When melted or dissolved in water, ionic substances do conduct electricity because the ions are free to move and carry charge.

Melting points

Ionic substances have high melting points because the electrostatic force of attraction between oppositely charged ions is strong and so requires lots of energy to break.

Ionic bonding

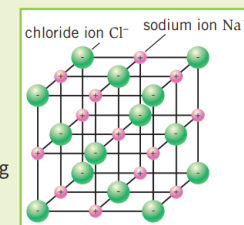
When metal atoms react with non-metal atoms they **transfer** electrons to the non-metal atom.



Metal atoms lose electrons to become positive ions. Non-metal atoms gain electrons to become negative ions.

Giant ionic lattice

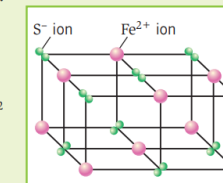
When metal atoms transfer electrons to non-metal atoms you end up with positive and negative ions. These are attracted to each other by the strong **electrostatic force of attraction**. This is called ionic bonding.



The electrostatic force of attraction works in all directions, so many billions of ions can be bonded together in a 3D structure.

Formulae

- The formula of an ionic substance can be worked out
- 1 from its bonding diagram:
for every one magnesium ion there are two fluoride ions – so the formula for magnesium fluoride is MgF_2
 - 2 from a lattice diagram:
there are nine Fe^{2+} ions and 18 S^{2-} ions – simplifying this ratio gives a formula of FeS_2



Covalent structures

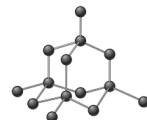
There are three main types of covalent structure:

Structure and bonding

Giant covalent

Many billions of atoms, each one with a strong covalent bond to a number of others.

An example of a giant covalent structure is diamond.



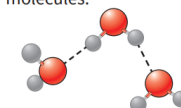
High melting and boiling points because the strong covalent bonds between the atoms must be broken to melt or boil the substances.

This requires a lot of energy. Solid at room temperature.

Small molecules

Each molecule contains only a few atoms with strong covalent bonds between these atoms. Different molecules are held together by weak **intermolecular forces**.

For example, water is made of small molecules.



Low melting and boiling points because only the intermolecular forces need to be overcome to melt or boil the substances, not the bonds between the atoms.

This does not require a lot of energy as the intermolecular forces are weak.

Normally gaseous or liquid at room temperature.

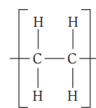
Large molecules

Many repeating units joined by covalent bonds to form a chain.

The small section is bonded to many identical sections to the left and right. The 'n' represents a large number.

Separate chains are held together by intermolecular forces that are stronger than in small molecules.

Polymers are examples of long molecules.



Melting and boiling points are low compared to giant covalent substances but higher than for small molecules.

Large molecules have stronger intermolecular forces than small molecules, which require more energy to overcome.

Normally solid at room temperature. **25**

Properties



Mains electricity

A cell or a battery provides a **direct current (dc)**. The current only flows in one direction and is produced by a **direct potential difference**.

Mains electricity provides an **alternating current (ac)**. The current repeatedly reverses direction and is produced by an **alternating potential difference**.

The positive and negative terminals of an alternating power supply swap over with a regular frequency.

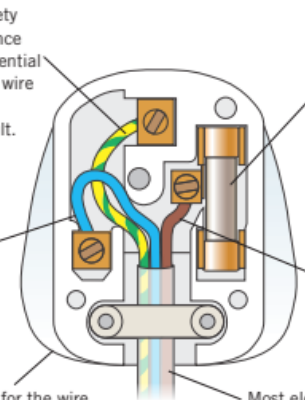
The frequency of the mains electricity supply in the UK is 50 Hz and its voltage is 230V.

Plugs

The Earth wire is a safety wire to stop the appliance becoming live. The potential difference of the Earth wire is 0V. It only carries a current if there is a fault.

The neutral wire completes the circuit. It has a potential difference of 0V.

Plastic is used for the wire coatings and plug case because it is a good electrical insulator.



Fuse connected to the live wire. If the live wire inside an appliance touches the neutral wire a very large current flows. This is called a **short circuit**. When this happens the fuse melts and disconnects the live wire from the mains, keeping the appliance safe.

The live wire is dangerous because it has a high potential difference of 230V. This would cause a large current to flow through you if you touched it.

Most electrical appliances in the UK are connected to the mains using a three-core cable. Copper is used for the wires because it is a good electrical conductor and it bends easily.

Electrical appliances transfer energy.

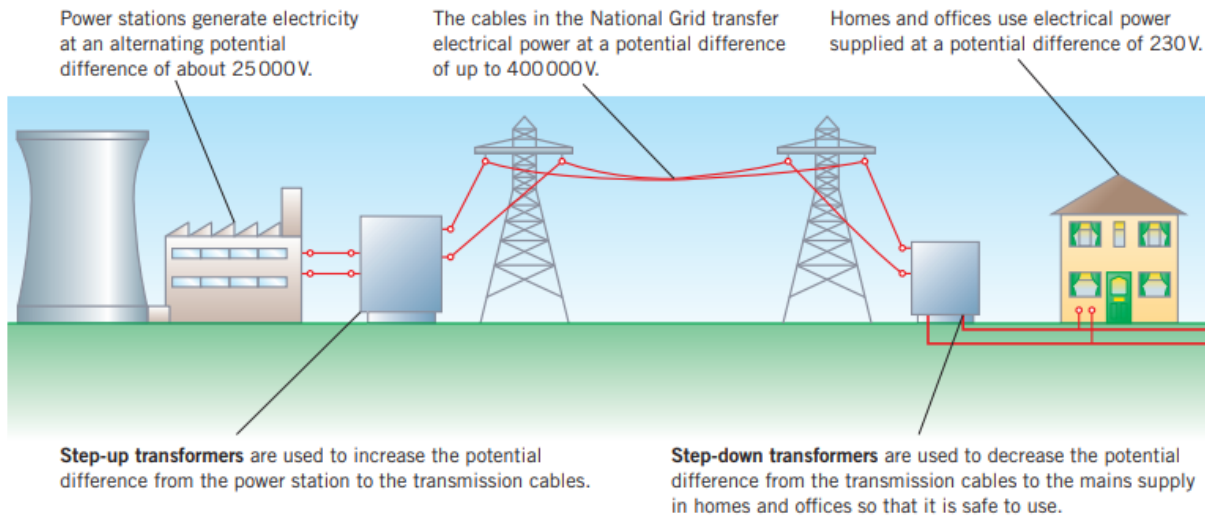
For example, an hairdryer transfers energy electrically from a chemical store (e.g., the fuel in a power station) to the kinetic energy store of the fan inside the hairdryer and to the thermal energy store of the heating filaments inside the hairdryer.

When you turn an electrical appliance on, the potential difference of the mains supply causes charge (carried by electrons) to flow through it.

The National Grid

The **National Grid** is a nationwide network of cables and transformers that link power stations to homes, offices, and other consumers of mains electricity.

Transformers are devices that can change the potential difference of an alternating current.



Power stations generate electricity at an alternating potential difference of about 25000V.

The cables in the National Grid transfer electrical power at a potential difference of up to 400000V.

Homes and offices use electrical power supplied at a potential difference of 230V.

Step-up transformers are used to increase the potential difference from the power station to the transmission cables.

Step-down transformers are used to decrease the potential difference from the transmission cables to the mains supply in homes and offices so that it is safe to use.

A high potential difference across the transmission cables means that a lower current is needed to transfer the same amount of power, since:

$$\text{power (W)} = \text{current (A)} \times \text{potential difference (V)}$$

$$P = IV$$



A lower current in the cables means less electrical power is wasted due to heating of the cables, since the power lost in heating a cable is:

$$\text{power (W)} = \text{current}^2 \text{ (A)} \times \text{resistance } (\Omega)$$

$$P = I^2R$$



This makes the National Grid an efficient way to transfer energy.

By making the grid potential difference much higher, a smaller current is needed to transfer the same power. Therefore, the National Grid is an efficient way to transfer power due to less heating loss in the wire.

Dia de los Muertos

Day of the Dead Festival:

- **1st November** 'Dia de los Angelitos' Day of the angels, innocents souls of **children** are remembered
- **2nd November** 'Dia de los Difuntos' Day of the dead (**adults**)
- The official celebration day is the 2nd November but celebrations can start on the 31st October so it lasts 3 days in total.
- The festival is to **remember your loved ones which have passed away, be happy, joyful and laugh.**
- Dia de los muertos is **not related to Halloween**, it is an older Aztec celebration.
- The difference with Halloween is that **day of the dead** is a **happy** event and Halloween instils fear in people about death and the dead which does not **preserve their spirit or memory respectfully or peacefully.**

Pan de muerto/death bread:

has bone shapes on the top, it is a sweet orange sugary bread



Sugar Skulls



Day of the Dead (Día de los Muertos) is a Mexican celebration when families gather to honor the memory of deceased loved ones on November 1 and 2. Spirits are guided home to enjoy offerings left for them on meticulously crafted altars. Its roots are a fusion of traditions found in Europe and Mesoamerica, particularly the ancient Aztec empire.

The altar is a complex creation with incredible symbolism as each element carries specific meaning. Here are the most important elements and what they mean.

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Levels
"Ofrendas" can be made up of two, three or seven levels.
2 LEVELS represent the division between the earth and the sky.
3 LEVELS represent the sky, the earth and the underworld.
7 LEVELS are the most common and relate to the seven levels that a soul must traverse before reaching heaven (or hell). It also relates to the Seven Deadly Sins.

Incense
A chalice with incense or copal (an aromatic tree resin used in indigenous ceremonies) is placed on the altar. It is a way to purify the souls of the dead and ward off evil spirits.

Water
A glass of water is often placed on the altar to quench the thirst of the deceased and strengthen them for their return journey.

Banquet
To celebrate the arrival of your deceased loved ones, a banquet of their favorite food and drink items is placed as an offering.

Fire
Fire in the form of candles and torches are symbols of our love for our deceased relatives and guiding lights for their spirits.

Paper
"Ofrendas" usually have "papel picado" or tissue paper, typically in yellow and purple, made into intricate designs. They are a representation of the union between life and death.

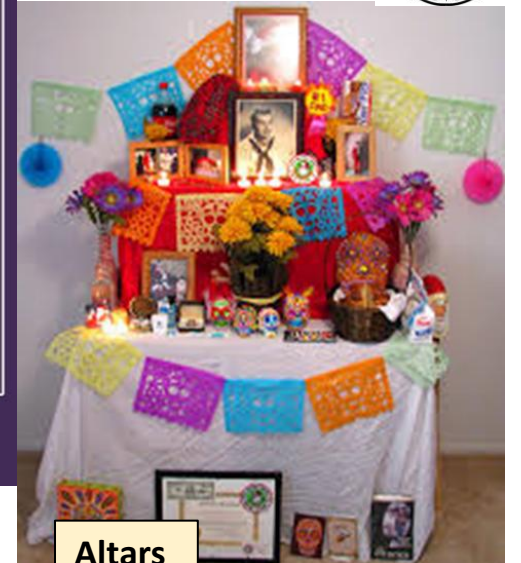
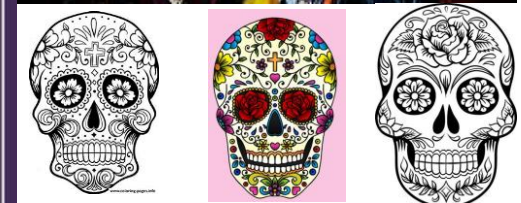
Flowers
Flowers are not just a beautiful visual addition to the altar.
YELLOW FLOWERS, or cempazúchitl, are a guide for the spirits into the mortal world.
WHITE FLOWERS represent the sky, while **PURPLE FLOWERS** are the traditional color of mourning in Mexico.

Salt
Salt is usually placed on a plate and stops the souls of the deceased from being corrupted by earthly temptations.

Typical Food
As well as the deceased's favorite food items, altars usually contain traditional Day of the Dead food items such as Pan de Muerto, rice, mole, pumpkin, sugar cane, jicama and oranges - the fruits of the season.

Calaveras:
"Calaveras" or skulls are representations of deceased relatives. Made of sugar or chocolate and often consumed by kids after the celebration, they are an example of the Mexican ability to celebrate, mock, and play with death.

White Cross:
A cross made of slaked lime is drawn on the ground under the altar. It originally represented the four cardinal points corresponding to the four elements. Now it is also a representation of the Christian cross.



Altars



Man Made

Man made objects have been constructed, caused or made in some way by human beings. Natural forms have occurred or grown naturally.



Many artists are inspired by man-made objects, Michael Craig-Martin, Jim Dine and Mark O'Brien are some of the artists that we will look at.



Michael Craig-Martin



Jim Dine



Mark O'Brien



Sculpture Key Words and Information

An artist who creates work that is three dimensional is called a **sculptor**. Sculpture can be made from a range of materials that might make the work permanent or temporary, such as:






- natural materials, e.g., grasses, bark, pebbles, rushes, leaves, clay, stone, wood
- made materials, e.g., fabric, card, cardboard, clay tiles, plastic, bronze, metal, wire, glass
- reclaimed materials, e.g., made for one purpose and used again for another purpose
- visual qualities, e.g., shape, form, texture, colour, pattern
- Different materials will give different tactile qualities, e.g., hard, soft, rough, smooth, bumpy, rigid, pliable
- Different processes are used to create a range of outcomes, processes could include assembling, carving, modelling, casting or constructing

Enrichment: Watch the following series with artist Grayson Perry
<https://www.channel4.com/programmes/graysons-art-club>



Forming & Shaping Techniques

Tools & Equipment

Name of tool	Picture	What the tool is used for
Router		Used to create slots, grooves and fancy edges
Hot wire strip heater		Used for forming plastic by applying heat to the material
Try Square		Marks out and checks right angles
Disc Sander		This machine smooths surfaces and removes old finishes (e.g. paint)
Twist Drill Bit		Used for drilling 1mm-20mm holes in timber, plastic and metal

Polymers

Thermosetting Polymers	Thermoforming Polymers
Urea Formaldehyde Epoxy Resin Melamine Formaldehyde Phenol Formaldehyde	Acrylic Polypropylene High-Density Polyethylene Polyvinyl Chloride (PVC)
Uses: Electrical fittings, kitchen worktops, boat hauls, adhesives	Uses: Signage, drinks bottles, food packaging and window frames

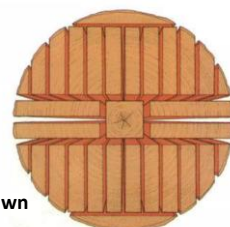
Lamination



Plywood

A number of thin layers or veneers of wood glued and pressed to create a strong composite

Conversion is cutting timber manageable lengths (planks)



Through and through sawn

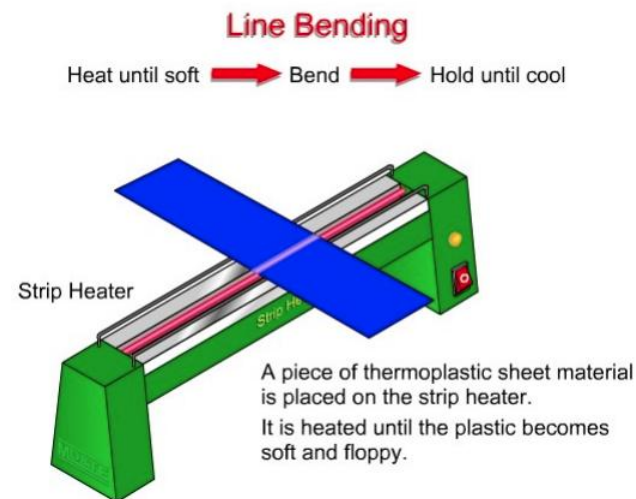
Health & Safety

1. Listen carefully to the teacher's instructions
2. Always clamp work before drilling/cutting
3. Wear safety glasses when using machinery
4. Carry and store sharp tools safely

Try these websites to support you

How to router timber: www.youtube.com/watch?v=pojJIMo8U2I

How to laminate plywood: <https://www.youtube.com/watch?v=vVswXx2m3eI>



Key words:

- Acrylic
- Former
- Thermoforming polymers
- Design brief
- Thermosetting polymers
- Timber conversion

The Science of Food



All eggs sold in Britain must be marked with a code that shows:

- Which egg producer they came from (Farm ID)
- The country of origin (UK)
- The type of method used, e.g. free range, organic, barn, cage.

Farming Methods

Caged / battery:

- Hens are kept indoors in cages. Light, food and temperature are all controlled to maximise egg laying. Fertilisers/medication are sometimes used. This is the cheapest method of egg production.

Barn:

- Hens are kept indoors but are free to roam about. The light and feed are controlled. The hens have access to some perches and can express some natural habits.

Free range / organic:

- Hens are allowed to roam in the open air; they are kept in hen houses at night. They are able to forage for natural foods and express all their natural habits. No fertilisers are used. This is the most expensive way of producing eggs.

Lion Quality Mark

Eggs displaying the Lion mark have been produced to the highest standard. Hens are tested for salmonella and hygiene is strictly controlled.

Key Words:

1. Coagulation
2. Gelatinisation
3. Caramelisation
4. Shorten
5. Viscosity
6. Aerate
7. Raising Agent
8. High risk food
9. Emulsion
10. Peak



Eggs should be stored in the fridge (3°C) or a cool place away from strong smelling foods. Eggs should be stored blunt end upwards. They should be removed from the fridge an hour or so before use, because cold eggs do not whisk well. Most eggs we use come from British hens, but they can also come from duck, geese and quail.

Nutrition in eggs

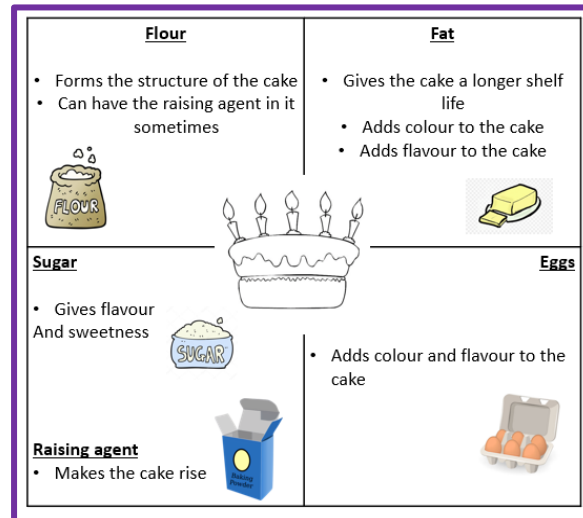
Eggs are a nutritious food and good value for money.

There is no recommended limit on how many eggs we should eat. Eggs offer us: Easily digested protein needed for growth. Essential vitamins, A,D,E, K and B groups – but no vitamin C

Minerals in iron, phosphorus and zinc
Only 80-90 kcal an egg – and are low in saturated fat.



HOW TO MAKE BLONDE ROUX



Raising Agents



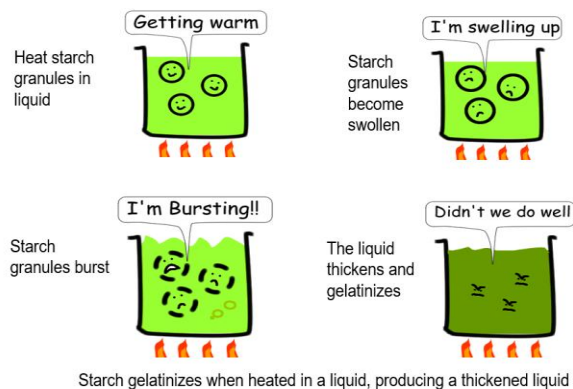
Chemical	Biological	Mechanical	Physical
Bicarbonate of soda / baking powder	Yeast	Whisk or sieve	Steam

Trapping air/Aerating:

The protein in the egg white stretches when beaten and traps air.

Example: sponge cake, Swiss roll and meringues

Gelatinisation: What happens during the production of a white sauce to make it thicken.



Creaming Method

Examples:
Victoria sponge / muffins

Definition:
Sugar and butter creamed with a wooden spoon before other ingredients are added

Whisking / All-in-one Method

Examples:
Swiss roll, cupcakes, sponges, gateaux

Definition:
All-in-one – Add all ingredients to the bowl at once and mix until smooth
Whisking – Use the whisk to aerate the mixture

Rubbing-in Method

Examples:
Crumble, shortbread, pastry

Definition:
Use your hands to mix fat and flour together before adding any other ingredients

Melted Method

Examples:
Brownies, flapjacks, rocky road

Definition:
Melt the fats on the hob in a saucepan before mixing the eggs and baking the product

Cake making methods

Photography

Many photographers use light and shadow, alongside editing techniques, to transform ordinary objects into striking images. Shadows can create mystery, drama, or atmosphere, while light can highlight detail and form. Together they can tell a story or convey a powerful mood or feeling.

Photography is the process of capturing light with a device known as a camera and creating an image. That camera could come in various forms including phone cameras, digital cameras, and film cameras. Photo editing is the act of altering an image. You can change an image to improve its quality, style or mood. There are lots of different methods and tools to edit photos.



THE LANGUAGE OF PHOTOGRAPHY

The Photo:

- Composition
- Vantage point
- Angle
- Light
- Framing
- Cropping
- Juxtaposition

The Camera:

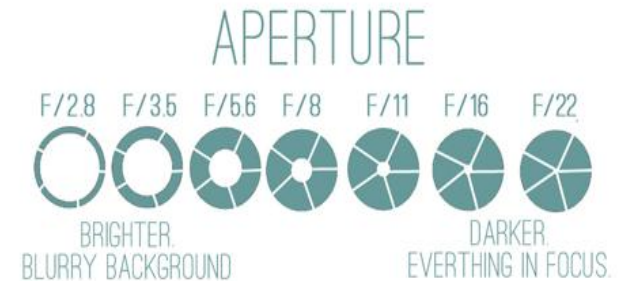
- Aperture
- Shutter speed
- Focus
- Depth of Field
- ISO

The Visual:

- Line
- Tone
- Colour
- Texture
- Form
- Shape
- Pattern

PHOTOGRAPHY CHEAT SHEET

a guide to help you shoot manual



Enrichment: Explore the history of photography
<https://www.tate.org.uk/art/art-terms/p/photography>





Topic Objectives

- To devise a new performance to educate a younger audience
- To collaborate well with peers to create a shared performance
- To use a range of drama techniques to create credible characters and scenes

Collaboration

1. Clear communication
2. Focus and commitment to your group
3. Everyone pulling their weight
4. Offering ideas
5. Being prepared to try others' ideas
6. Be brave and try ideas out



Extension and Further Info

Devising Jane Eyre



Three Act Structure



Key Techniques

Devising – The process of creating a play from a stimulus. This is without using a script.

Stimulus – The starting point for creating a performance. This could be a picture, an object, a song or anything that gives you ideas.

Narration/Direct Address/Breaking the 4th wall – When a performer speaks directly to the audience.

Three Act Structure – Splitting your performance into a beginning, middle and end so that your story is interesting to watch.

Cross-Cutting– Alternating between two scenes on stage.

Multi-roling – When an actor plays multiple parts within a play

Flashback – A scene that shows something that happened before the events of the play.

Placards – Signs or boards that have writing on that gives more information about what is happening on stage.

Marking the Moment – When you highlight an important moment in a play.

Year 9 Assessment Criteria

Performing	Analysing	Devising	Drama Roles	Drama Techniques
<ul style="list-style-type: none"> • Can identify and use all elements of VTTAPE FEMPIG effectively • Can confidently perform a range of characters and texts • Can perform in a range of styles including Brecht and Physical Theatre • Can perform using props and costume • Can perform using design elements 	<ul style="list-style-type: none"> • Can analyse use of VTTAPE FEMPIG in professional theatre • Can discuss and analyse different styles of theatre including Brecht, Naturalism, Comedy, Physical Theatre • Can discuss design elements such as colour, texture etc and their effect • Can understand semiotics and symbolism 	<ul style="list-style-type: none"> • Can create performances for a specific purpose e.g. theatre for change • Can create performances in a range of genres and styles • Can work positively in groups with a range of people • Can work independently; rehearsing, improving and developing your performances • Can develop detailed creative ideas in response to a stimulus 	<ul style="list-style-type: none"> • Can understand backstage and design roles • Can create lighting, set and costume designs for a chosen text • Can understand roles in professional theatre • Can apply these roles to a performance project 	<ul style="list-style-type: none"> • Can recognise multiple techniques and their purpose • Can identify and use Brecht techniques • Can use multiple techniques together for an intended purpose e.g. educate • Can use techniques confidently and effectively considering the audience



Francophone countries

History

- A Francophone country is a country where French is the main or official language.
- French became an international language in the Middle Ages thanks to the influence of the Kingdom of France.
- French is the official language of France, which is composed of 27 regions. 22 of them are situated in Europe and 5 are overseas territories. In addition to this, France is the official language of 28 countries around the world.
- International Francophonie Day is held on the 20th of March every year. It celebrates the French language and diverse Francophone cultures through cultural activities held worldwide.



Québec

- Québec is a walled city, meaning there is a wall that goes all the way around it, enclosing the city.
- Québec is mainly French-speaking, making it a Francophone country. Only 5% of people living in Québec don't speak French!
- Québec is located in Canada. It is the largest province in Canada.
- The capital is Québec City.
- Québec has very cold winters with lots of snow. On around 149 days each year, there is up to an inch of snow.
- The summer is very warm with average temperatures of around 25 degrees.
- There is a strong Irish presence in Québec.
- Many people visit Québec to go skiing and for other winter sports. *Le Massif* is a famous ski resort with an altitude of 770 meters high.
- The national dish of Québec is *Poutine* – a dish of chips, cheese sauce and gravy.



Enrichment Opportunities



Madagascar

- The official languages of Madagascar are Malagasy and French.
- Over 90% of Madagascar's wildlife is not found anywhere else in the world.
- Madagascar is the world's fourth largest island.
- Over 50% of the world's chameleon population lives in Madagascar.
- Madagascar is one of the poorest nations in the world.
- People who are from Madagascar are called *Malagaises*.
- Contrary to the film, there are no lions, giraffes, hippos or zebras in Madagascar!
- Because of Madagascar's deep red colour, the country is often called the *Great Red Island*.
- The *baobab* tree is the most unique and famous plant found in Madagascar.



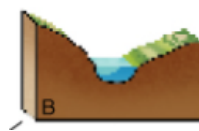
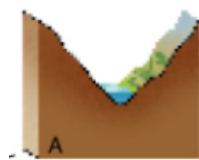
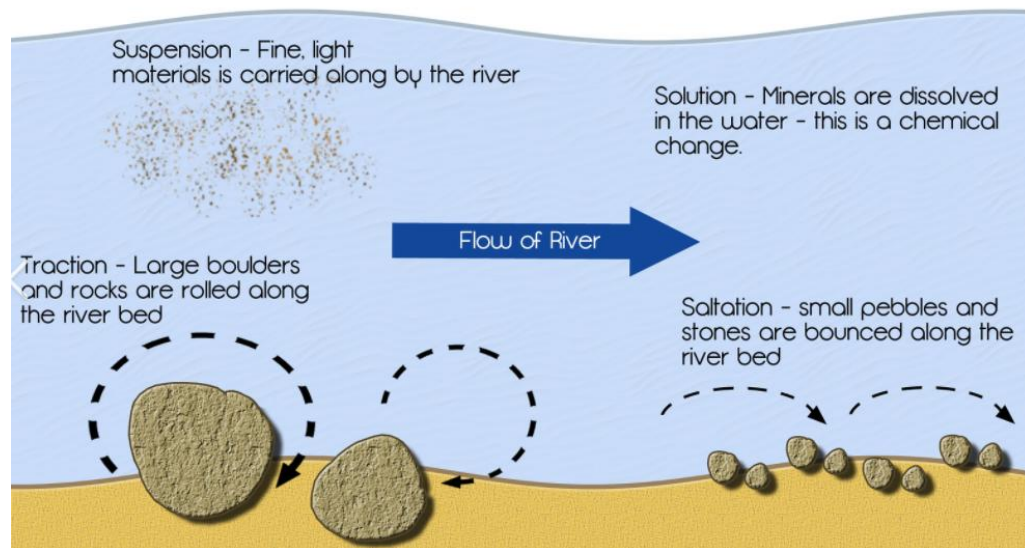
Martinique

- Martinique is an overseas territory of France (a TOM). It is a Caribbean Island located in the Caribbean sea.
- The capital of Martinique is Fort-de-France.
- Martinique is about 50 miles long and reaches 22 miles wide.
- The temperature in Martinique doesn't change much throughout the year at around 26 degrees, making it quite a warm place.
- Instead of a summer or winter, Martinique has a wet and dry season. The dry season lasts from December to June. The wet season, where there is abundant rain, is July to November.
- Martinique is a popular Caribbean tourist destination.
- Martinique's economy is heavily dependent on trade with France.

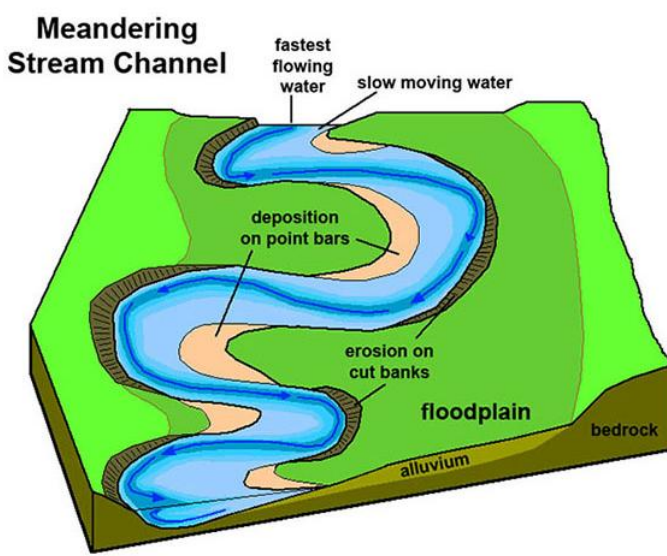


Key word definitions

- Abrasion** – material carried by the water scrapes away the river bed and banks (like sandpaper)
- Afforestation** – planting trees as a protection method to reduce flooding impacts
- Attrition** – material carried by the water knocks against each other, gradually breaking down
- Confluence** – where two river channels meet (often a cause of flooding)
- Deposition** – the river drops off any material it has been carrying
- Erosion** – the breaking down of rocks or land
- Hard engineering** – using man made, long lasting structures to protect against flooding
- Hydraulic action** – the force of the water eroding the river bed and banks
- Infiltration** – water seeping down into the soil
- Mouth** – where the river meets the sea
- Precipitation** - water in any form that falls to earth including rain, hail, sleet and snow
- Soft engineering** – using natural methods to try to prevent flooding
- Solution** – acids in the water slowly dissolve the river bed and banks
- Source** – the start of a river (usually in hills or mountains)
- Surface run-off** – water flowing downhill over the ground
- Transportation** – water carrying eroded material downstream
- Tributary** – a smaller channel entering a larger one



Upper
Middle
Lower
Cross profiles



Enrichment Opportunities

Find a news article about a flood in the last year in a country outside of Europe. What were the social (people) impacts and what were the economic (businesses and money) impacts? Link to History – Why do settlements often start next to rivers? Carry out a research study into an example in the UK and write a brief fact file.



Knowledge Organiser - Year 9: How did people from Gloucestershire experience WWII?

Key People

Winston Churchill	British Prime Minister who led the country during WWII.
Lord Gort	Commander of the British Expeditionary Force during the Dunkirk evacuation.
King George VI	British monarch during WWII.
Vera Lynn	Singer known as the "Forces' Sweetheart," whose songs boosted morale among troops and civilians.
Herbert Morrison	British Home Secretary during in WWII.
Bernard Montgomery	British Army officer who played a key role in the planning and execution of the D-Day landings.

Key Terms/ Concepts

Operation Dynamo	The code name for the evacuation of Allied soldiers from the beaches of Dunkirk.
British Expeditionary Force (BEF)	The British Army sent to the Western Front during World War II.
The Blitz	The sustained bombing campaign carried out by Nazi Germany against Britain in 1940-1941.
Evacuation	The process of moving children, pregnant women, and other vulnerable people from cities to the countryside to protect them from bombing raids.
Rationing	The controlled distribution of scarce resources and goods.
Dig for Victory	A campaign encouraging people to grow their own food to reduce reliance on imports.
Operation Overlord	The code name for the Allied invasion of Normandy.
Paratroopers	Soldiers who parachuted into enemy territory to secure key positions.
Utah, Omaha, Gold, Juno, Sword	The five landing beaches of the Normandy Invasion.

Key Dates of WWII

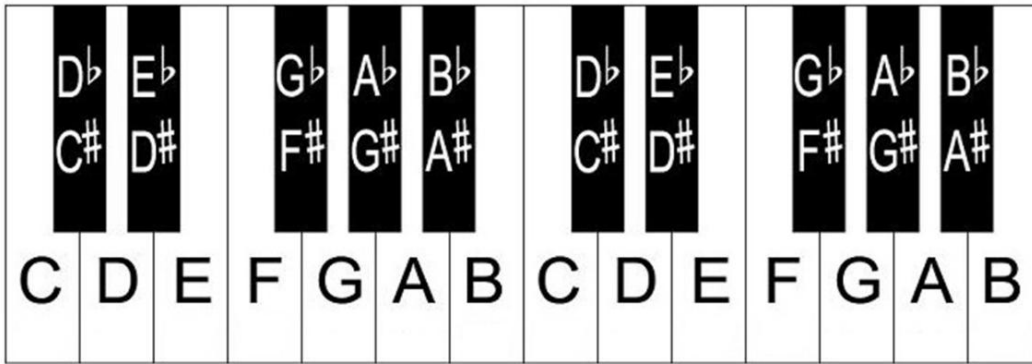
- 1st September, 1939:** WWII starts and evacuation of civilians from British cities begins.
- 8th January, 1940:** Introduction of food rationing in Britain.
- 26th May, 1940:** Start of Operation Dynamo.
- 4th June, 1940:** Completion of the Dunkirk evacuation.
- 7th September, 1940:** Beginning of the Blitz, with the first major bombing raid on London.
- February 1941:** Launch of the "Dig for Victory" campaign.
- 10th May, 1941:** End of the Blitz.
- 6th June, 1944:** D-Day, the Allied invasion of Normandy.
- 8th May, 1945:** Victory in Europe.
- 2nd September 1945:** WWII ends.



Enrichment Opportunities

- Watch – *Adventures in History: On the Home Front* - https://www.youtube.com/watch?v=9SdTO82_IGM
- Read – *Adventures in Time: The Second World War*, Dominic Sandbrook
- Listen – History's Secrets Heroes - <https://www.bbc.co.uk/sounds/play/m0028vdc>

Piano Keys and Notes



E G B D F

Every Green Bus Drives Fast



F A C E

FACE in the SPACE



G B D F A

Great Big Dogs Fight Angrily

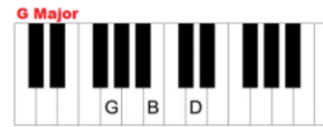


A C E G

All Cows Eat Grass



Keyboard Chords



Play one – Miss one – play one – miss one – play one

MAD T-SHIRT

Melody – the tune, combination of different pitches of notes

Articulation – the way it is played

Dynamics – how loud the music is

Texture – layers of sound Thick / Thin

Structure – the order in which the music happens

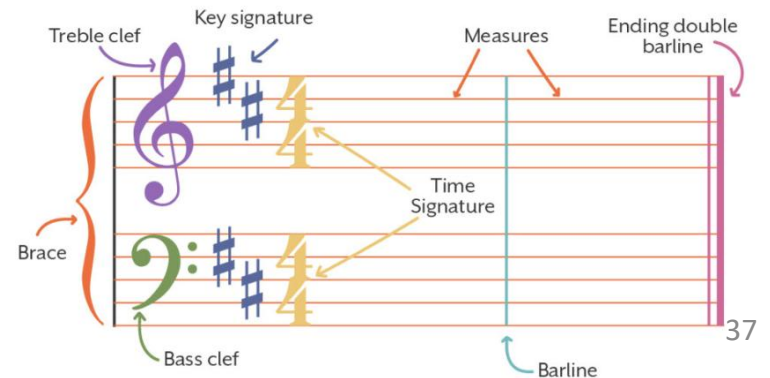
Harmony – How the notes sound together. **Chords**, notes played at the same time

Instrumentation – Ukulele, Vocals

Rhythm and Tempo – combination of long and short notes, fast or slow, **bpm** – Beats Per Minute

Timbre – the quality of the sound

Grand Staff





How to read Guitar Chords

STRING NUMBERS: 6 5 4 3 2 1

1st Fret

2nd Fret

3rd Fret

4th Fret

5th Fret

E A D G B E

STRING NOTES

MUTE

OPEN STRINGS

NUT

INDEX FINGER

MIDDLE FINGER

RING FINGER

OPEN C

C

Am

Em

G

E

UKULELE - G CHORD

G

OPEN STRING

Open 4th string.

TRIANGLE SHAPE

1st, 2nd and 3rd fingers.

3 FINGERS

on 1st, 2nd and 3rd strings.

1 3 2

LEFT

FRETTING HAND

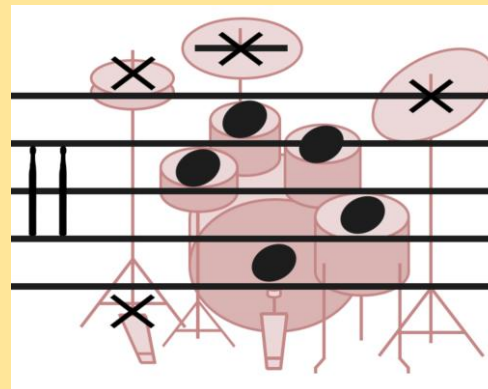
C MAJOR

A MAJOR

G MAJOR

D MAJOR

How to read Drum Tab



Standard 8th Note Groove

1 2 3 4

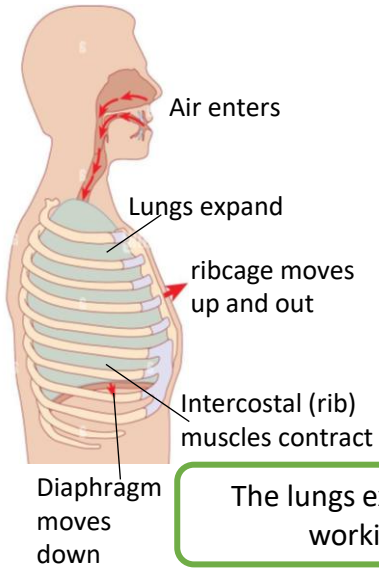
BASS DRUM

SNARE DRUM

HI-HAT



Inhalation (breathing in)



BREATHING MECHANICS

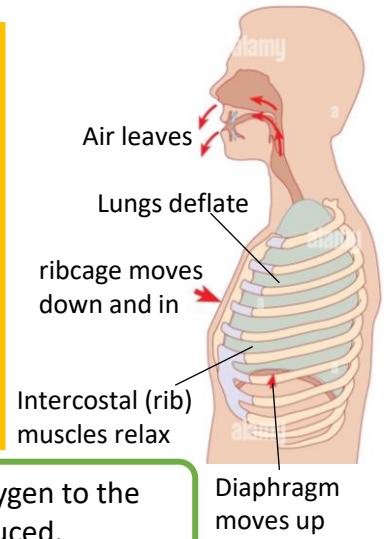
Inhalation

- Also known as **inspiration** and is the process of breathing in
- **Diaphragm** flattens and moves down
- **Intercostal** muscles contract, raising the ribs and pushing out the sternum
- **Chest cavity** expands, reducing air pressure and causing air to be sucked into lungs

Exhalation

- Also known as **expiration** and is the process of breathing out
- Diaphragm becomes dome shaped
- **Intercostal** muscles relax, lowering the ribs and dropping the sternum
- **Chest cavity** deflates, increasing air pressure and causing air to be pushed out of the lungs

Exhalation (breathing out)



The lungs expand and contract much more during exercise. As more air is inhaled to supply more oxygen to the working muscles, more air is exhaled to remove the increased amount of carbon dioxide produced.

SPIROMETER TRACE

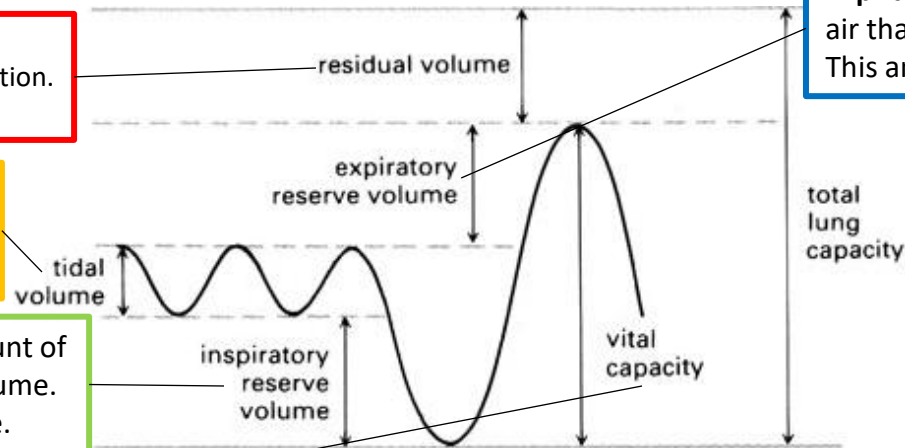
A spirometer is a piece of equipment that measures the air capacity of the human lungs. A spirometer trace is a way of recording and drawing these volumes. The pattern of the trace will change as the amount of air you inspire and expire changes as you exercise. Lines moving upward show inhalation, whilst downward shows exhalation. The following volumes are measured:

Residual volume: The amount of air that remains in the lungs after maximal expiration. There is no change during exercise.

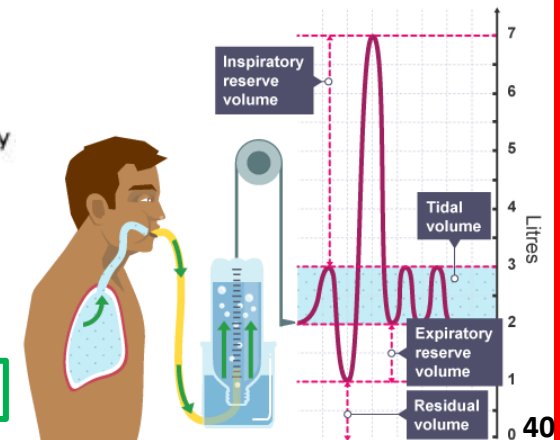
Tidal volume: The normal amount of air inhaled or exhaled per breath. This volume increases with exercise.

Inspiratory reserve volume: The amount of air that can be forced in after tidal volume. This amount decreases during exercise.

Vital capacity: The largest volume of air that can be forcibly expired after the deepest possible inspiration.



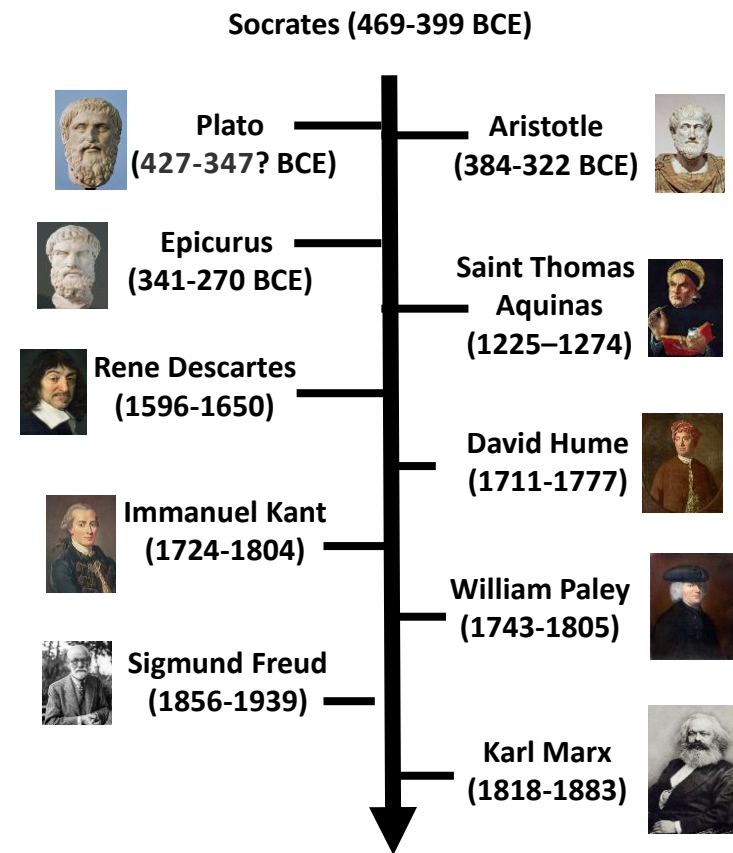
Expiratory reserve volume: The amount of air that can be forced out after tidal volume. This amount decreases during exercise.



1.1 Key Vocabulary

A priori – A statement which is knowable without any reference to any experience. E.g. mathematics $5+7=12$
A Posteriori – A state which is knowable only after experience. E.g. that food is hot
Class consciousness – A term used by Marx to mean the working class becoming aware they are being oppressed
Design (or teleological) argument – The argument that the world looks designed and so has a designer - God
Empiricism – The theory that knowledge is gained through our five senses
False consciousness – A term used by Marx to describe a way of thinking that stops the working class from seeing how they are being oppressed
Fallacy of composition – An argument that wrongly claims that what is true of something's parts must also be true of the whole thing
First cause argument – The argument that everything in the universe needs a cause and so the universe also needs a cause, which is God
First certainty – 'I think; therefore I am': Descartes' realisation that the fact he thinks shows that his mind must exist.
Logical fallacy – A statement that is logically flawed
Opium of the people – A phrase used by Marx comparing religion to opium, an addictive painkilling and vision-creating drug
Rationalism – The theory that knowledge is gained through reason
Realm of Appearances – Plato's name for the world in which we live
Real of Forms – Plato's name for a perfect realm where our souls previously lived
Ruling class – According to Marx, the minority of rich and powerful people, such as factory owners
The problem of evil – The argument that evil and sufferings shows that an all-loving, all-powerful and all-knowing God cannot exist

1.2 The Greats: Timeline



Revision suggestions

- 1) Create a quiz from the key vocabulary.
- 2) To help you remember the key philosophers and their theories in 1.3 create two flash cards for each philosopher on one card write the name of the philosophers and on the other card in your own words summarise their theory. You can then use these cards to play snap or match the names up to the correct theory.





1.3 Key philosophers and their theories



Epicurus
(341-270 BCE)

Epicurus taught that although the gods exist, they have no involvement in human affairs. He saw religion as a source of fear that should be banished from people's minds if they were to live peaceful lives. He famously said; ***'If God is unable to prevent evil, then he is not all-powerful. If God is not willing to prevent evil, then he is not all-good. If God is both willing and able to prevent evil, then why does evil exist?' this became known as the Epicurus' trilemma*** and had been used by many atheists to prove that God does not exist.



Saint Thomas Aquinas
(1225–1274)

Aquinas believed that the existence of God could be proven by his 'Five Ways':

- 1) **Motion** – movement in the world has a cause. The 'ultimate mover' must be God.
- 2) **Cause** – every effect has a cause. Therefore, God must be the first cause of existence for everything else to follow.
- 3) **Contingency** – everything is impermanent. Nothing can exist without depending on something else. The world is dependent on something for its existence. That must be God.
- 4) **Perfection** – There are higher and lesser degrees of perfection. God must be the highest perfection.
- 5) **Order** – order is present in the world. There must be an intelligent designer to this order.



Aristotle
(384-322 BCE)

Aristotle is a severe critic of traditional religion, believing it to be false, yet he also holds that traditional religion and its institutions are necessary if any city, including the ideal city he describes in the Politics, is to exist and flourish. He believed that religion had long proven helpful in regulating social behaviour, something that will be particularly important to a tyrant who cannot necessarily count on the freely chosen support of his subjects. ***"A tyrant must put on the appearance of uncommon devotion to religion. Subjects are less apprehensive of illegal treatment from a ruler whom they consider god-fearing and pious."***



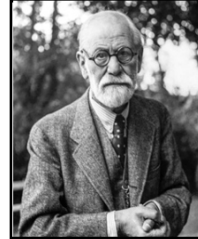
Rene Descartes
(1596-1650)

Throughout his life Descartes was a devout Christian. He believed that because there was a clear idea of perfect being (God) in his mind; God must exist. He also believed that because he had an idea in his mind about a perfect being and he himself was not perfect; There must be a God. The very fact that he is not perfect means he would not bear his own existence. Similarly, his parents, who are also imperfect beings, could not be the cause of his existence since they could not have created the idea of perfection within him. That leaves only a perfect being, God, that would have had to exist to create and be constantly recreating him. He famously said ***'God alone is the author of all the motions in the world'***



Plato
(427-347? BCE)

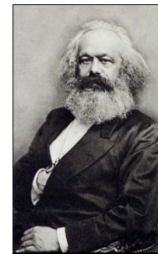
Plato believed that there was an all-knowing, benevolent God. Who providentially cares for and governs everything in the world. He believed that humans have an immortal human soul and that God is the source of all good, being the very Form of Goodness. He claims that religious faith is both against and above reason. He proclaims, ***"when we believe, we desire to believe nothing further."***



Sigmund Freud
(1856-1939)

Freud described religions as 'mass delusions' and claimed it to be childish wishful thinking. He said that religion was an illusion and all in the mind. Through his work with various patients, he tried to give a natural explanation for why people believe in God. He claimed that the reason is that religion satisfies three wishes or desires that all people have. Freud's theory is known as his wish-fulfilment hypothesis. According to Freud the three wishes we all have are;

- 1) *The desire for a father*
- 2) *The desire for fairness*
- 3) *The desire for immortality*



Karl Marx
(1818-1883)

Marx described religion as the 'opium of the people'. Opium is addictive, painkilling drug that can cause hallucinations. By using the metaphor of opium, Marx was claiming that the working class become addicted to religious ideas as a way of numbing the pain of their earthly existence. Religion offers them a pleasant illusion of an afterlife and blinds them to their oppression. He accused the ruling class of using religion to control and manipulate the working class by feeding them the idea that God favors and will reward those in poverty. Marx believed that there was biblical evidence to support his theory such as the teaching of Jesus; ***'it is easier for a camel to go through the eye of a needle than for a rich person to enter the Kingdom of God!'***



William Paley
(1743-1805)

Aquinas argued in his fifth way that natural things in the world appear to have been designed and this shows their must be an intelligent designer. This is known as the Design (or teleological) argument. Paley, inspired by this compared the world to an intricately designed watch. He noted that all the complex parts of a watch fit together in an orderly way so that it can achieve its purpose of telling the time. This is not simply an accident that has happened by chance; it is because a watch has a watchmaker. Just as a watch needs a watchmaker, he argued, then something even more complex, orderly and purposeful like the world must have a world maker.



Date	KO*	WB*	TT*	Date	KO*	WB*	TT*
13/4				4/5	IN	S	ET
14/4				5/5			
15/4				6/5			
16/4				7/5			
17/4				8/5			
20/4				11/5			
21/4				12/5			
22/4				13/5			
23/4				14/5			
24/4				15/5			
27/4				18/5			
28/4				19/5			
29/4				20/5			
30/4				21/5			
1/5				22/5			

You should also have:

- Pencil case
- Reading book
- Calculator
- Headphones
- Plastic wallet
- Protractor
- Sharpener
- Compass
- (no scissors)



You should also have when needed:

- Ingredients
- PE kit
- Completed homework

RUBBER

PENCIL

WHITEBOARD PEN

GREEN PEN

BLACK PEN

RULER

You can borrow core items without penalty between 8.30-8.45am before passing your Head of Year