UNITY

ACADEMY BLACKPOOL

Remote Learning Pack

Year 10

W/B: 29/06/2020

NAME	
FORM/TUTOR	

Remote Learning Guidance

Included in this pack you will find all the learning resources required to support working from home for this week. Most classroom-based lessons on your timetable are included and there is sufficient work to support the number of hours you would be taught in that subject in any given week. If you have a subject for more hours across the week than others, the work will be proportionate to that. Therefore, you should expect more work to complete for English, maths and science than for other subjects.

This work is also available on Google Classroom where you will find additional online support. If you have been working on Google Classroom up until this point then you are encouraged to continue working in that manner rather than use this booklet.

For Y9 and Y10 pupils, please make sure that you select the work for the options subjects you study, ignoring any work for subjects that are not on your timetable.

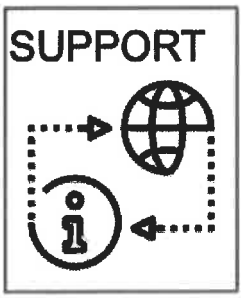
It is advised that you work using the following advice:

- Follow your normal timetable where possible
- Aim to complete all activities set
- Make use of the support and guidance provided for each 'lesson' -- if it directs you to another source of information then it is going to be helpful
- Complete work either in the booklet or through the electronic version available on the relevant subject Google Classrooms
- If you are accessing the work via Google Classroom, the activities for each subject will be uploaded to the subject classrooms rather than together as one document
- Ask an adult at home for help when you are finding work difficult
- Use Google Classroom or the relevant subject email address to ask for help from your teachers where you are unable to use the support provided within the booklet
- Take regular breaks from your work and space it out across the week
- Make sure you read instructions and explanations carefully. You may need to read them more than once.

Be kind to yourself - just try your best!

Remote Learning

The following pages contain your new learning for this week. Please make sure that, where possible, you use the recommended support methods for each of your lessons. The methods of support will be indicated with the following icon:



Further support is also available on Google Classroom. Alternatively you can email the relevant subject team using the email addresses on the school website.

SUBJECT	English Lit- Macbeth – Ambition	YEAR	10

SUPPORT

Watch teacher support video.
Prophecy: a prediction of what will happen in the future.
Paranoid: unreasonably or obsessively anxious, suspicious, or mistrustful.
Honour: high respect; great esteem.
Conscience: a person's moral sense of right and wrong
Characteristic: a feature or quality belonging typically to a person, place, or thing and serving to identify them.
Paradoxical: a statement or idea that contradicts itself.
Sceptical: not easily convinced; having doubts or reservations.
Unchecked ambition: ambition that is not controlled. Not showing any restraint when it comes to your desires.
Purity: freedom from any immoral (wrong) behaviour or thoughts
Allegiance: loyalty or commitment to someone who is above you.

ACTIVATE

How does the above quote link to Shakespeare's Macbeth? ***Annotate around the image.***
Challenge: Michael Moorcock is an English writer and musician. What else can you find out about his literary work?

Where would you place ambition on the virtue/ vice scale? Basically, is it good or bad to be ambitious. Justify your response.

Virtue: moral strength. Good habit.

Vice: moral flaw or weakness. Bad habit.

EXPLAIN

Last week we explored the theme of Kingship in Macbeth, this week we are going to explore the theme of ambition. The two themes link very closely; after all it's Macbeth's unchecked ambition that leads to him committing the act of regicide.

Read the information below and:

- Highlight key information
- Summarise the key ideas in each paragraph
- Identify any unfamiliar terms, research their definitions and think about the meaning of the terms, in the context.
- See the first paragraph for an example

To behave without control in a wild or dangerous manner

Weird here comes from the Anglo-Saxon wyrd, and means fate or destiny. Thus the Weird Sisters are foretellers of Macbeth's fate.

~~***Summary:*** *Macbeth* is a play about~~ ambition **run amok**. The **weird sisters**' prophecies spur both **Macbeth** and **Lady Macbeth** to try to fulfill their ambitions, but the witches never *make* Macbeth or

his wife do anything. Macbeth and his wife act on their own to fulfill their deepest desires. Macbeth, a good general and, by all accounts before the action of the play, a good man, allows his ambition to overwhelm him and becomes a murdering, paranoid maniac. Lady Macbeth, once she begins to put into actions the once-hidden thoughts of her mind, is crushed by guilt. ***Summary:*** **The witches prophecies spark Macbeth and LM's actions, but they do not control them. Macbeth and LM act of their own free will. The witches just expose their inner evil.**

Both Macbeth and Lady Macbeth want to be great and powerful, and sacrifice their morals to achieve that goal. By contrasting these two characters with others in the play, such as **Banquo**, **Duncan**, and **Macduff**, who also want to be great leaders but refuse to allow ambition to come before honour, Macbeth shows how naked ambition, freed from any sort of moral or social conscience, ultimately takes over every other characteristic of a person. Unchecked ambition, *Macbeth* suggests, can never be fulfilled, and therefore quickly grows into a monster that will destroy anyone who gives into it.

Key Quotes and Analysis

Act 1, scene 3 Quote:

"And oftentimes, to win us to our harm,
The instruments of darkness tell us truths,
Win us with honest trifles, to betray's
In deepest consequence. "

Related Characters: Banquo (speaker), Macbeth, Weird Sisters

Explanation and Analysis:
Macbeth and Banquo have just learned that Macbeth has become Thane of Cawdor, which confirms the first part of the witches' prophecy. In response, Banquo notes that the stories told by the witches may be attempts to manipulate Macbeth.

These lines pose an important question about the role of supernatural forces in this tragedy: Are the witches dictating these mens' destinies or do men maintain the ability to avoid or affect the prophecies being presented? When Banquo says they "win us to our harm," he contends that the witches are actively exploiting him and Macbeth, yet he also notes that they "tell us truths"—which would seem to imply that nothing they say is false. The resolution comes in a similarly paradoxical phrase: "Honest trifles" that "betray." What Banquo means is that aspects of the witches' prophecies are genuine, but that those components are ultimately insignificant. He believes that these "instruments of darkness" will use the prophecies to gain control over him and Macbeth and then later manipulate them.

Banquo thus argues that he and Macbeth should resist believing the witches too much, even though they have thus far been correct in their prophecies. This suggests that Banquo is aware that he and Macbeth can act freely from the witches prophecies, however their ambition may prevent them from doing so. Macbeth, on the other hand, although equally as sceptical of the witches, is instantly driven by a desire for their prophecies to be fulfilled. This again raises the question: are Macbeth's actions the fault of the witches or his own unchecked ambition?

Act 1, scene 4 Quote:

"Stars, hide your fires!
Let not light see my black and deep desires."

Related Characters: Macbeth (speaker)

Explanation and Analysis:
After hearing that Duncan will visit his castle, Macbeth finds himself fantasising about seizing power for himself. He wants to deceive his guests and make sure they can't see his secret desires.
In these early moments in the play, Macbeth is still uncertain about how or whether to proceed with the murderous impulses that have arisen in him after hearing the witches prophecy. Though he **ambitiously** hopes to control the throne of Scotland, he also carefully watches these desires and seeks to hide them from others. Saying, "Stars, hide your fires" shows that Macbeth wishes to remain invisible and in complete darkness, such that his "black and deep desires" could not be observed. Metaphors of light and dark are used by Shakespeare throughout this play, and here their meaning remains unclear: Darkness stands for Macbeth's moral badness, but "light" does not seem to represent purity as it normally would. Rather, "light" is represented as an active agent that can "see" into those dark desires; it stands for a supernatural or even holy force that can see and judge mans' morally bad behaviour.

Macbeth, then, seems to believe in the existence of a God-like figure who judges him for his thoughts, and from whom he wishes to hide. His concern is less that other human beings will spy his desires and more that it will be observed by supernatural forces—a point that confirms his allegiance to the witches'. He also makes it clear that he is aware his ambitions go against god and the behaviour of a man who follows god's teachings.

Act 1, scene 5 Quote:
"Come, you spirits
That tend on mortal thoughts! unsex me here,
And fill me from the crown to the toe, top-full
Of direst cruelty; make thick my blood,
Stop up the access and passage to remorse,
That no compunctious visitings of nature
Shake my fell purpose, nor keep peace between
The effect and it! Come to my woman's breasts,
And take my milk for gall"

Related Characters: Lady Macbeth (speaker)

Explanation and Analysis:
After learning that King Duncan will remain at the castle for the evening, Lady Macbeth plots his murder. She asks the spirits to help her get rid of any human emotions like guilt or compassion, so she can kill Duncan.

Much like Banquo, Lady Macbeth believes that supernatural forces have a corruptive effect on human nature. She believes they "tend on mortal thoughts" and will fill her with "direst cruelty." Yet whereas Banquo made this point in order to avoid those effects, Lady Macbeth fully embraces the badness that comes with the supernatural as she wants power- she is extremely ambitious. Indeed, she uses a series of commands in order to demand being overtaken by them. The implication is that Lady Macbeth wishes to act entirely cruelly, but her natural human nature will prevent her from doing so.

To make this point, Lady Macbeth focuses on images relating to female fertility and more generally to bodily functions. That she demands "unsex me here" indicates that she sees her gender as preventing her from carrying out her vile purpose; while "take my milk for gall" similarly involves a desire to give up something feminine nurturing (mother's milk) for something destructive and harmful (gall). It seems from this Lady Macbeth realises the limits her gender places on her. She is a woman driven by her ambition for power, in a society where women were viewed as inferior to men.

Repeated references to the body further show her to be renouncing not only womanhood but humanity altogether—as if she desires to be a supernatural like the witches who are feared and don't see, to have any morals. In wishing to give up her humanity, this passage shows

Lady Macbeth knows that there is in fact a goodness to human nature that stops them from doing terrible things, but she sees this as getting in the way of her ambitious plan. At the same time, it shows that humans see in the supernatural a corruptive route away from goodness—which they may avoid (as Banquo does, although he is initially tempted by the witches) or full-heartedly embrace.

Act 1, scene 7 Quote:

"I have no spur
To prick the sides of my intent, but only
Vaulting ambition, which o'erleaps itself
And falls on the other."

Related Characters: Macbeth (speaker)

Explanation and Analysis:
Macbeth ponders whether he should follow through on his plan to kill Duncan. He observes that he is being motivated by his ambition for power rather than responding to a specific injustice. He is aware King Duncan has done nothing wrong to him and does not deserve to be killed.

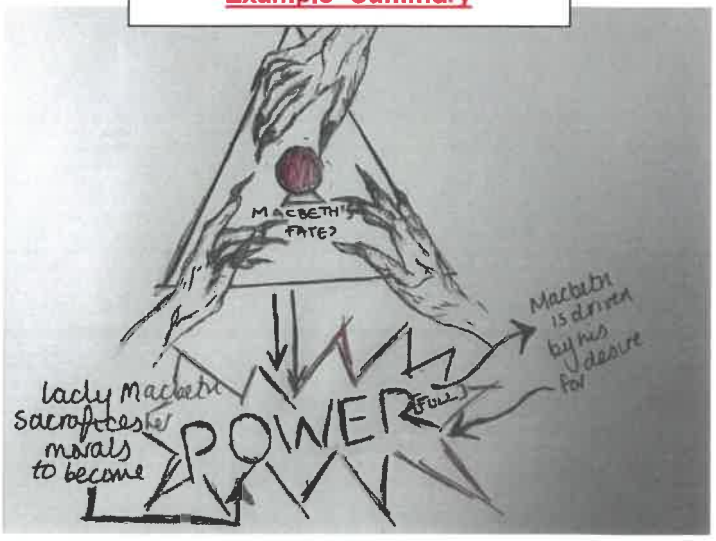
Shakespeare here makes a subtle point "vaulting ambition" here. By suggesting ambition tends to "o'erleap[] itself," Shakespeare suggests too much ambition encourages us to act beyond what we can reasonably achieve. When we become overly ambitious we want too much and don't always deserve it, resulting in negative consequences.

What is intriguing about this passage is that Macbeth seems keenly aware of his motivations and limitations. Though he may be acting out of "vaulting ambition," he is not immediately convinced by that desire. He almost seems aware of the dangers and consequences of too much ambition. Shakespeare thus gives a complex presentation of human psychology, in which people may be aware of the dangers of their actions, but a desire for power drives them to do it anyway.

PRACTISE

Now that you have read through all of the above information, you are going to condense your work and create dual coded revision cards for each of the quotes. The example below is linked to the summary.

Example- Summary



Act 1, scene 3 Quote:

Act 1, scene 4 Quote:

Act 1, scene 5 Quote:

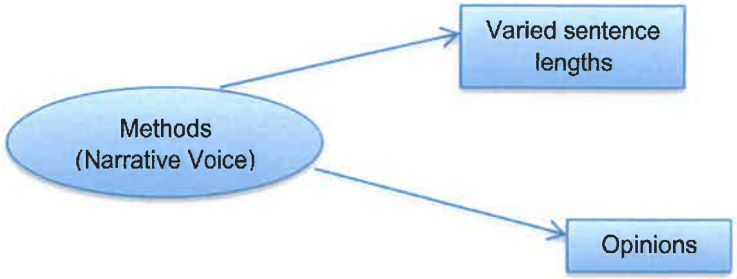
Act 1, scene 7 Quote:

REFLECT

What I already knew:	What I now know:	What I need to research further:

SUBJECT	English Language: Imaginative Writing	YEAR	10

SUPPORT	https://www.nownovel.com/blog/first-person-narrative-stronger/ - tips for effective use of first person

ACTIVATE	Complete the following mind map by recording all the different methods a writer can use to create a convincing narrative voice. 

EXPLAIN	Last week we rehearsed writing the EXPOSITION section of a story with a focus on establishing character. This week I want us to look closely at how we ***sustain a convincing narrative voice*** through the use of a variety of language and structural methods. Use of first person creates an **immediacy** and **intimacy** between narrator and reader. This is because the reader is given insight into the narrator's innermost thoughts/feelings and can 'get to know' them. First person narration is also a great way to reveal aspects of character through 'voice', as it allows you to take a show don't tell approach. As literary critics in English classrooms we often look at a piece of text in terms of what we can infer and deduce about the character or situation. As writers, we need to plan for this – what do we want our readers to infer and deduce from what we have written? Here are five tips to make your first person narrative as lifelike as possible: 1. Make your narrator's language show their character. To do this you will need to consider register (formality of tone), word choice, sentence structure and body language/gesture. 2. Cut out filter words – avoid over-describing what the narrator sees and experiences. 3. Let your narrator confide in your reader. This helps to reveal key information, create empathy and build an emotional connection. 4. Use first person's limited perspective for intrigue. One person's perspective means a limited amount of knowledge about any given situation or scenario. 5. Vary first person pronouns (I, we) and where you place them in your sentences. We all fall into the trap of starting too many sentences with 'I'. Examples of the above can be found on this blog: https://www.nownovel.com/blog/first-person-narrative-stronger/

PRACTISE	Revisit the work you have completed on character development in the last couple of weeks. What are the key characteristics/personality traits of the character you have created? Write them below.

Now imagine the following scenario: your character is travelling (by bus, car, train, etc) to somewhere important (work, school, party, etc) and they get delayed. How might they narrate this? Use the grid below to develop some ideas.

Where are they going?	
How are they likely to react to being late?	
How are they travelling? What are their general thoughts about this type of travel?	
Where are they when they get stuck? What are their thoughts about this place?	
Are there people around them? Who? How does your character respond to them?	
Why is where they are going so important?	

Now you have had chance to think about how you might place your character into this scenario, write it up in first person narrative. I have included an example of the first few sentences below.

My fingers drummed against the seat in front of me. I checked my watch for the fourth time in as many minutes as feelings of anxiety crept up my throat and into my mouth once more. I'm dead meat! Mother is going to freak when she realises I'm not there.

Remember to focus on the five tips I have provided for making your narrative voice as lifelike as possible.

REFLECT

Proof read your work checking your spelling, punctuation and grammar.

Read your work aloud. Can you hear the voice? Are you presenting your character in the way you wanted to? Make any appropriate edits.

Now consider what I said in the EXPLANATION section of the lesson about the relationship between reading and writing. What are you hoping your reader will infer and deduce about your narrator based on what you have written? Record this in the grid below. I have completed an example based on the opening sentences I gave in the PRACTISE section of the lesson.

Evidence from the text	**What we can infer or deduce**
"My fingers drummed against the seat in front of me."	Impatient

SUBJECT	English Literature – Exposure	YEAR	10

SUPPORT

Mr Bruff analysis: https://www.youtube.com/watch?v=64FESmLvQEs
BBC Bitesize: https://www.bbc.co.uk/bitesize/guides/zwbxp39/revision/1

Glossary

Comradery: mutual trust and friendship among people who spend a lot of time together.
Sibilance: Sibilance is a literary device where strongly stressed consonants (opposite of vowel sounds) are created deliberately. Such consonants produce hissing sounds. However, in poetry, sibilant sounds are usually used more than twice in quick succession. Most of the times, the "s" sound is the sibilant. "By happy silent moony beams-**Sweet sleep** with soft down" – Cradle Song, William Blake.
Alliteration: Alliteration is produced by the repetition of first consonant sounds in the words, generally the first one or two letters, such as in "A big bully beats a baby boy." However, sibilance is also a specific type of alliteration that uses the soft consonants. In sibilance, hissing sounds are created. These soft consonants are s, with sh, ch, and th,
Refrain: refrain is a verse or line that comes at the end of a stanza. In poetry this line is often repeated. For example, in the poem below Owen repeats "but nothing happens" at the end of several stanzas- this is refrain.
Onomatopoeia: a word which imitates the natural sound of the thing being described. For example, the buzzing bee flew away- buzzing is onomatopoeic.
Stanza: stanzas are like paragraphs in a poem
Personification: Personification is a figure of speech in which a thing – an idea or an animal – is given human attributes
Ellipses: ellipses is when you omit part of a sentence.
Irony: Irony is a figure of speech in which words are used in such a way that their intended meaning is different from the actual meaning of the words - The name of Britain's biggest dog was "Tiny."
Juxtaposition: Juxtaposition is a literary technique in which two or more ideas, places, characters, and their actions are placed side by side in a narrative or a poem, for the purpose of developing comparisons and contrasts. "It was the best of times, it was the worst of times".
Verb: a word used to describe an action, state, or occurrence, and forming the main part of the predicate of a sentence, such as *hear*, *become*, *happen*.
Futile: something that is pointless.

ACTIVATE

Can you link the above images to the word exposure? Annotate your ideas under the images.

Exposure:

1. the state of having no protection from something harmful.

"the dangers posed by exposure to asbestos"
Similar: subjection vulnerability
Opposite: protection from

2.the revelation of something secret, especially something embarrassing or damaging.
"she took her life for fear of exposure as a spy"
Similar: uncovering revelation showing

Use the word exposure in a sentence describing somebody being exposed to nature.

Use the word exposed in a sentence that describes someone's secrets being revealed.

EXPLAIN

Below is an annotated copy of the poem. Read through the annotations, you will need to understand them to answer the practise questions. If you don't understand any of the poetic terms, go to the glossary in the support box

The opening is abrupt, this the effect of 'hooking' the reader in. The present tense gives a sense of immediacy. The pronoun 'our' creates a sense of comradery.

Our brains ache, in the merciless iced east winds that knive us...
Wearied we keep awake because the night is silent...
Low drooping flares confuse our memory of the salient...
Worried by silence, sentries whisper, curious, nervous,
But nothing happens.

There are sibilant 's' and alliterative 'w' sounds in 'iced east winds' convey the biting cold and intensity of the wind.

The personification suggests that the weather is like an inescapable enemy. Ellipses are used to emphasize how long this drags on.

silence means tension, and fear of the unknown rather than safety.

Personification.

This refrain emphasises Owen's belief that this war is futile

Watching, we hear the mad gusts tugging on the wire,
Like twitching agonies of men among its brambles.
Northward, incessantly, the flickering gunnery rumbles,
Far off, like a dull rumour of some other war.
What are we doing here?

Using a simile, Owen suggests the agony of the men reflected in the wind. The imagery of men struggling with the 'brambles' gives the reader an idea of nature of war.

The last words 'gunnery' and 'rumbles' are onomatopoeic, echoing the sounds of war.

rhetorical question

The anticlimactic and disappointing end to each stanza reinforces the feeling of boredom and anxious anticipation of the soldiers.

The poignant misery of dawn begins to grow...
We only know war lasts, rain soaks, and clouds sag stormy.
Dawn massing in the east her melancholy army
Attacks once more in ranks on shivering ranks of grey,
But nothing happens.

The 'poignant misery of dawn' is ironic, as in normal life dawn is thought of as positive.

The comparison between the enemy soldiers and the weather is more direct here with the use of the word 'army'; these ranks of grey could be rain or hail.

The sibilance of the letter s conveys the sound of bullets. This emphasises the contrast between the silence and the sudden gunfire.

Personification

Sudden successive flights of bullets streak the silence.
Less deadly than the air that shudders black with snow,
With sidelong flowing flakes that flock, pause, and renew,
We watch them wandering up and down the wind's nonchalance,
But nothing happens.

The sibilance mirrors the sound of bullets. This emphasises the contrast between the silence and the sudden gunfire.

The use of alliteration speeds the pace of the poem.

The wind is personified here to show that it is the greater of the two evils. It knows that in time it will claim more lives than the bullets.

Pale flakes with fingering stealth come feeling for our faces—
We cringe in holes, back on forgotten dreams, and stare, snow-dazed,
Deep into grassier ditches. So we drowse, sun-dozed,
Littered with blossoms trickling where the blackbird fusses.
—Is it that we are dying?

The personification of the snow and cold emphasises how the weather is as much of a threat as the enemy soldiers.

The sweet image of springtime blossom, signifying renewed life, is juxtaposed with the fear and bleakness of trench warfare.

Slowly our ghosts drag home: glimpsing the sunk fires, glozed
With crusted dark-red jewels; crickets jingle there;
For hours the innocent mice rejoice: the house is theirs;
Shutters and doors, all closed: on us the doors are closed,—
We turn back to our dying.

The men hallucinate, experiencing visions of home. They may believe that their only way of returning is through death in the form of a ghost, and so let their minds wander to memories of being back home.

This phrase is ironically casual. Owen expresses this almost nonchalantly, as if the soldiers were expecting and waiting to die.

The solider feel that due to their experiences they no long fit into 'normal' life'. Another interpretation is that expect to die and for their families to move on.

Since we believe not otherwise can kind fires burn;
Now ever suns smile true on child, or field, or fruit.
For God's invincible spring our love is made afraid;
Therefore, not loath, we lie out here; therefore were born,
For love of God seems dying.

This again could suggest that they have lost faith in God as he is allowing them to suffer so greatly. Alternatively, it could mean that they feel abandoned by God and that his love has died.

Their love of what they believed was 'God's invincible spring' is shaky. Their faith has been undermined and they are afraid; no longer trust that spring — a metaphor for life — can come again and bring happiness.

Tonight, this frost will fasten on this mud and us,
Shrivelling many hands, and puckering foreheads crisp.
The burying-party, picks and shovels in shaking grasp,
Pause over half-known faces. All their eyes are ice,
But nothing happens.

While the cold weather is causing them to shake it is also an indication of grief. They are burying fallen comrades

The verb 'fasten' emphasises how the frost will entrap the soldiers. The verb 'will' shows that their fate is inescapable.

This could refer to the dead soldiers, whose eyes may be literally frozen in the cold, or it could refer to the burying-party, which is so used to death that its soldiers are numb. Their eyes are glazed and icy, too shocked to convey emotion.

The reality of fulfilling this last duty for comrades. They pause, there is a reverence in death and seeing 'half-known' faces no longer alive. Also, the idea that the faces are 'half-known' suggests that they were disfigured to the point where they were hardly recognisable.

The last line takes us back to the beginning – The soldiers have achieved nothing.

PRACTISE

Answer the following questions to show you have understood the above poem. Question one has been completed for you as an example of how to approach answering the questions.

1. "Our brains ache" suggests a collective physical pain from the cold and a sense comradery amongst the soldier. How could this quote link to mental pain? What might the soldiers have experienced?

Although the phrase "our brains ache" could be referring to the physical pain the soldiers are experiencing as a result of the cold, it also implies a mental pain. The poem goes on to reveal the soldiers are experiencing both deadly weather conditions and the prospect of a deadly enemy (the opposing army). The soldiers are mentally tormented as they sit round waiting for potential death and think about the home they may not return to. In this sense the "aching brains" of the soldiers may reflect the trauma they now have to live with.

2. What does the personification of the weather in the opening stanza suggest?

3. What is meant by futile? How does the poem suggest war is futile?

4. Why do the soldiers feel they no longer fit in to normal life? Use evidence from the poem to support your answer.

5. Which line in the poem suggests the men may be losing faith in God?

6. Why might soldiers fighting during WWI have lost faith in God?

7. Why do you think Owen repeats the phrase " But nothing happens"

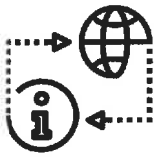
8. What does the use of the rhetorical question "what are we doing here?" imply?

REFLECT

What I already knew:	What I now know:	What I need to research:

Fractions – Multiplication and Division

LESSON 1 - Multiplying Fractions



Support
If you need extra help follow the videos linked throughout (and on google classroom) for worked examples and explanations.

Activate
Rewrite the improper fractions below as mixed numbers. Write your answers in simplest terms. Match each answer to a letter in the Key. Then write the letter in the space above its problem number to find the answer to the riddle.

1. $\frac{6}{4}$ = _____
2. $\frac{10}{6}$ = _____
3. $\frac{13}{8}$ = _____
4. $\frac{21}{9}$ = _____
5. $\frac{15}{7}$ = _____
6. $\frac{36}{5}$ = _____
7. $\frac{23}{6}$ = _____
8. $\frac{16}{10}$ = _____
9. $\frac{47}{11}$ = _____
10. $\frac{16}{12}$ = _____

Key

$2\frac{1}{7}$ ..... E	$2\frac{4}{9}$ ..... O	$3\frac{1}{6}$ ..... P
$2\frac{1}{3}$ C	$1\frac{2}{3}$ ..... E	$4\frac{3}{11}$ ..... T
$3\frac{8}{9}$ I	$1\frac{1}{2}$ ..... B	$7\frac{1}{5}$ ..... E
$3\frac{5}{6}$ ..... A	$1\frac{5}{8}$ ..... S	$2\frac{5}{7}$ ..... R
$1\frac{1}{3}$ ..... H	$4\frac{7}{11}$ ..... M	$1\frac{3}{5}$ ..... H

Why is it hard to play sports against a team of big cats?

Riddle Answer
They might ___ ___ ___ ___ ___ ___ ___ ___ ___.
16 48259710 3

Key Concept

Top x top
Bottom x bottom

To multiply fractions the **denominators** do **not** need to be the **same.**

Top Tip:
To multiply fractions with integers, turn the integer into a fraction –
the numerator will be the integer number and the denominator will always be 1.

Explain
Work through the following examples. Follow the video link for support on how to complete these.

Video Support:

Example 1 - I DO

$$\frac{2}{3} \times 7$$

1. Write the integer as a fraction (denominator of 1)

$$\frac{2}{3} \times \frac{7}{1}$$

2. Multiply the numerators, multiply the denominators.

$$\frac{2 \times 7}{3 \times 1} = \frac{14}{3}$$

3. Cancel down your fraction/convert to a mixed number where possible.

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

Example 2 - WE DO

$$\frac{1}{2} \times \frac{4}{5}$$

1. Here we have two fractions so go straight into multiplying the numerators and multiplying the denominators

$$\frac{1 \times 4}{2 \times 5} = \square$$

2. Cancel down your fraction/convert to a mixed number where possible.

$\square$

Example 3 - YOU DO

$$6 \times \frac{3}{4}$$

$\square = \square$

$= \square$

$$\frac{1}{3} \times \frac{9}{10}$$

$\square = \square$

$= \square$

Practice
Complete the following questions, practising multiplying fractions.

TASK 1

1. $\frac{1}{5} \times 3$
2. $\frac{1}{10} \times 4$
3. $\frac{4}{5} \times 20$
4. $\frac{2}{3} \times 12$
5. $\frac{2}{7} \times 8$
6. $9 \times \frac{1}{2}$
7. $12 \times \frac{2}{3}$
8. $4 \times \frac{3}{7}$
9. $3 \times \frac{3}{5}$
10. $8 \times \frac{4}{5}$

Working Out – simplify and/or convert to mixed numbers

TASK 2

1. $\frac{2}{3} \times \frac{1}{2}$
2. $\frac{3}{4} \times \frac{1}{3}$
3. $\frac{9}{10} \times \frac{2}{3}$
4. $\frac{7}{10} \times \frac{5}{9}$
5. $\frac{2}{3} \times \frac{1}{2}$
6. $\frac{8}{9} \times \frac{2}{7}$
7. $\frac{2}{7} \times \frac{1}{5}$
8. $\frac{1}{4} \times \frac{1}{2}$
9. $\frac{4}{5} \times \frac{1}{2}$
10. $\frac{1}{5} \times \frac{1}{2}$

Working Out – Simplify where possible

TASK 3

1) $\frac{2}{3} \times \frac{1}{4}$
2) $\frac{3}{5} \times \frac{2}{3}$
3) $\frac{3}{5} \times \frac{5}{6}$
4) $\frac{2}{3} \times \frac{3}{5}$
5) $\frac{8}{9} \times \frac{3}{4}$
6) $\frac{2}{9} \times \frac{3}{8}$

Working Out – make sure all answers are simplified <u>fully</u>

Explain
Work through the following examples. Follow the video link if for support on how to complete these

Video Support:

Example 1 - I DO

$$3\frac{1}{3} \times \frac{1}{4}$$

1. Write the mixed numbers as improper fractions.

$$\frac{10}{3} \times \frac{1}{4}$$

2. Multiply the numerators, multiply the denominators.

$$\frac{10 \times 1}{3 \times 4} = \frac{10}{12}$$

3. Cancel down your fraction/convert back to a mixed number where possible.

$$\frac{5}{6}$$

Example 2 - WE DO

$$2\frac{2}{5} \times 1\frac{3}{4}$$

1. Write the mixed numbers as improper fractions.

$$\frac{12}{5} \times \frac{7}{4}$$

2. Multiply the numerators, multiply the denominators.

$$\square = \square$$

3. Cancel down your fraction/convert back to a mixed number where possible.

$$\square = \square$$

Example 3 - YOU DO

$$1\frac{3}{5} \times 1\frac{1}{3}$$

$$\square \times \square$$

$$\square = \square$$

$$\square$$

Practice
Complete the following questions, practising multiplying fractions.

TASK 4

1. $2\frac{6}{7} \times \frac{3}{5}$
2. $2\frac{5}{6} \times \frac{4}{5}$
3. $2\frac{1}{2} \times \frac{2}{3}$
4. $2\frac{3}{4} \times \frac{2}{3}$
5. $1\frac{1}{3} \times 2\frac{1}{2}$
6. $3\frac{6}{7} \times 2\frac{1}{2}$
7. $1\frac{1}{2} \times 1\frac{2}{3}$
8. $1\frac{1}{2} \times 3\frac{1}{4}$

Working Out

Reflect
Fill in the reflection template below.

Reflection:
What did I learn about today?

_____

What did I find easy?

_____

What did I struggle with?

_____

Extra Support:
- Make sure you have watched the videos included
- Ask for help on Google Classrooms

Extension:
Complete Hegarty maths task #68 and #69

LESSON 2 – Dividing with Fractions

Activate
Look at the 1-100 square and try to answer the following questions. Don't panic if you can't work out all the questions this is just a starter to get your brain going!!

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

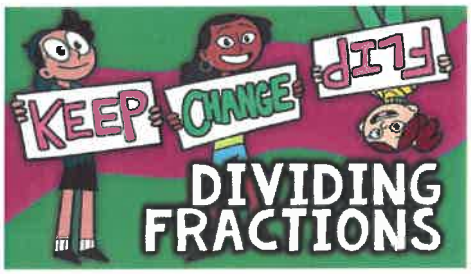
1) What fraction of the numbers are divisible by 2?
2) What fraction of the numbers are prime numbers?
3) What fraction of the numbers are square numbers?
4) What fraction of the numbers are multiples of 9?
5) What fraction of the numbers are multiples of 15?
6) What fraction of the numbers are multiples of 7?
7) What fraction of the numbers are multiples of 10?
8) What fraction of the numbers have 2 digits?

Key Concept

To divide two fractions:

$$\frac{3}{4} \div \frac{2}{7}$$

Keep	Change	Flip
$\frac{3}{4}$	$\times$	$\frac{7}{2}$



Top Tips:
To divide integer and fractions, convert the integer to a fraction first.

Any mixed numbers convert to improper fractions first.

Once you have done keep change flip the question
Is just like multiplying fractions in lesson 1. This is because (for example) dividing by 2 is the same as multiplying by a half, as 2 and ½ are **reciprocals** of each other.

To divide fractions the **denominators** do **not** need to be the **same.**

Explain
Work through the following examples. Follow the video link for support on how to complete these

Video Support:

Example 1 - I DO

$$\frac{2}{3} \div 7$$

1. Write the integer as a fraction (denominator of 1)

$$\frac{2}{3} \div \frac{7}{1}$$

2. Keep the first fraction, change the divide to multiply and flip the second fraction.

$$\frac{2}{3} \times \frac{1}{7}$$

3. Multiply the fractions

$$\frac{2 \times 1}{3 \times 7} = \frac{2}{21}$$

4. Cancel down/convert to mixed number if possible.

Example 2 - WE DO

$$\frac{1}{3} \div \frac{2}{3}$$

1. Here we have two fractions so go straight into keep, change, flip.

$$\frac{1}{3} \times \frac{3}{2}$$

2. Multiply the fractions.

$$\square = \square$$

3. Cancel down/convert to a mixed number if possible.

$$\square$$

Example 3 - YOU DO

$$4 \div \frac{3}{7}$$

$$\square = \square = \square$$

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

$$\square = \square = \square$$

Practice
Complete the following questions, practising dividing fractions.

TASK 1

1. $4 \div \frac{1}{2}$
2. $2 \div \frac{1}{3}$
3. $3 \div \frac{1}{2}$
4. $5 \div \frac{1}{2}$
5. $4 \div \frac{3}{4}$
6. $\frac{4}{5} \div 3$
7. $\frac{3}{4} \div 2$
8. $\frac{4}{7} \div 8$
9. $\frac{9}{40} \div 5$
10. $\frac{11}{20} \div 3$

Working Out – simplify and/or convert to mixed numbers where possible

TASK 2 Show working out with the questions – simplify answers and/or convert to mixed numbers where possible

1. $\frac{3}{5} \div \frac{1}{3}$
2. $\frac{1}{4} \div \frac{1}{2}$
3. $\frac{2}{3} \div \frac{1}{2}$
4. $\frac{4}{7} \div \frac{1}{2}$
5. $\frac{1}{5} \div \frac{1}{3}$
6. $\frac{1}{3} \div \frac{1}{2}$
7. $\frac{2}{3} \div \frac{1}{2}$
8. $\frac{3}{8} \div \frac{2}{3}$
9. $\frac{1}{4} \div \frac{1}{2}$
10. $\frac{1}{3} \div \frac{1}{3}$

TASK 3

1) $\frac{2}{3} \div \frac{1}{4}$

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

3) $\frac{4}{5} \div \frac{4}{6}$

4) $\frac{1}{3} \div \frac{5}{6}$

5) $\frac{9}{10} \div \frac{3}{5}$

6) $\frac{4}{5} \div \frac{3}{10}$

Working Out – simplify answers and/or convert to mixed numbers where possible.

Explain
Work through the following examples. Follow the video link if for support on how to complete these

Video Support:

Example 1 - I DO

$$2\frac{1}{4} \div \frac{1}{3}$$

1. Write the mixed numbers as improper fractions.

$$\frac{9}{4} \div \frac{1}{3}$$

2. Keep the first fraction the same, change the divide to multiply and flip the second fraction.

$$\frac{9}{4} \times \frac{3}{1}$$

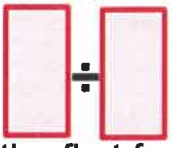
3. Multiply the fractions and simplify/convert.

$$\frac{9 \times 3}{4 \times 1} = \frac{27}{4} = 6\frac{3}{4}$$

Example 2 - WE DO

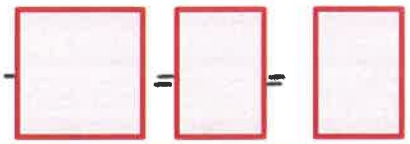
$$2\frac{2}{3} \div 1\frac{1}{4}$$

1. Write the mixed numbers as improper fractions.



2. Keep the first fraction the same, change the divide to multiply and flip the second fraction.

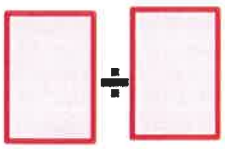
3. Multiply the fractions and simplify/convert.



Example 3 - YOU DO

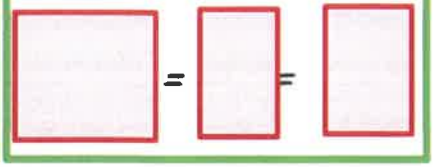
$$4\frac{2}{5} \div 2\frac{1}{4}$$

1. Write the mixed numbers as improper fractions.



2. Keep the first fraction the same, change the divide to multiply and flip the second fraction.

3. Multiply the fractions and simplify/convert.



Practice
Complete the following questions, practising dividing mixed numbers.

TASK 4

1. $2\frac{6}{7} \div \frac{1}{3}$
2. $2\frac{1}{3} \div \frac{1}{5}$
3. $2\frac{1}{3} \div \frac{1}{2}$
4. $2\frac{3}{4} \div \frac{1}{3}$
5. $1\frac{5}{6} \div 3\frac{3}{4}$
6. $2\frac{1}{3} \div 1\frac{1}{2}$
7. $2\frac{1}{3} \div 1\frac{1}{2}$
8. $1\frac{1}{6} \div 3\frac{1}{2}$

Working Out – simplify and/or convert to mixed numbers where possible

Reflect
Fill in the reflection template below.

Reflection:
What did I learn about today?

What did I find easy?

What did I struggle with?

Extra Support:
- Make sure you have watched the videos included
- Ask for help on Google Classrooms

Extension:
Complete Hegarty maths task #70

LESSON 3 – Fraction calculations – Applying skills

Activate
Work out the problem below. For each day you are using the new amount of peaches worked out from the day before.

A little monkey had 60 peaches.
On the **first** day he decided to keep **3/4** of his peaches.
He gave the rest away. Then he ate one.
On the **second** day he decided to keep **7/11** of his peaches.
He gave the rest away. Then he ate one.
On the **third** day he decided to keep **5/9** of his peaches.
He gave the rest away. Then he ate one.
On the **fourth** day he decided to keep **2/7** of his peaches.
He gave the rest away. Then he ate one.
On the **fifth** day he decided to keep **2/3** of his peaches.
He gave the rest away. Then he ate one.
How many did he have left at the end?

Key Concept – Method:

Use **CUPS** to solve problems:

Circle important numbers

Underline what the question is asking

Plan your strategy – which process needs to be used? (x, +, - , ÷)

Solve the problem and check your answer – is it reasonable?

Explain
Work through the following examples. Follow the video link if for support on how to complete these

Video Support:

Example 1 - I DO

QUESTION: C

In a car park, $\frac{2}{3}$ of the cars are red.

$\frac{1}{5}$ of the cars are blue. U

What fraction of the cars are red or blue?

P *Red or blue means I need to add the red and blue together.*

S $\frac{2}{3} + \frac{1}{5} = \frac{10}{15} + \frac{3}{15} = \frac{13}{15}$

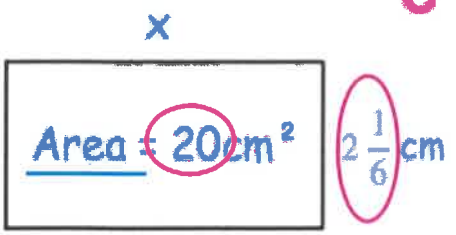
Example 2 - WE DO

QUESTION :

U

Shown is a rectangle.
Find the value of x

C



P *Area of a rectangle = length x width*
so length = area ÷ width
Before dividing with fractions I must convert mixed numbers to improper fractions

S $2\frac{1}{6} = \frac{13}{6}$ → $\frac{20}{1} \div$ ☐ = $\frac{20}{1}$ ☐ = ☐ = ☐

Example 3 - YOU DO

QUESTION:

Alexis has a pet dog, Maxi.

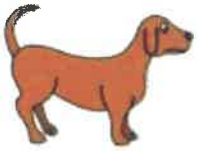
Each day, Maxi eats $\frac{2}{3}$ of a can of dog food.

Alexis is buying dog food for one week.

How many cans of dog food should Alexis buy?

C *Circle important numbers*

P *One week = ☐ days.*
Number of cans = number of days x amount eaten per day.



= ☐

S = ☐ = ☐ = ☐

U *Underline what the question is asking*

Practice
Complete the following questions, practising different fraction calculations.

TASK - Questions

1 Patrick has a bag of sugar that contains $\frac{5}{6}$ kg

He uses $\frac{3}{5}$ kg of sugar to make a cake.

How much sugar does Patrick have left?

2 Alisha has $\frac{7}{8}$ litres of lemonade.

She is pouring glasses that each contain $\frac{1}{5}$ litres.

How many full glasses can she pour?

Working Out – simplify answers and/or convert to mixed numbers

3 James shares $\frac{5}{8}$ of a cake between 6 people.

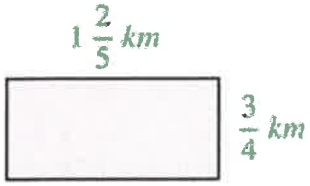
What fraction of the cake do they each receive?

4 Jasmine has a bottle that contains $\frac{7}{10}$ litre of orange juice.

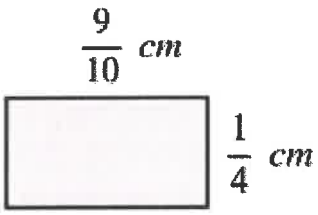
She pours out some orange juice and now has $\frac{1}{4}$ litre left.

How much orange juice did Jasmine pour out?

5 Work out the perimeter of this rectangle.



6 **Find the area of this rectangle.**
Include suitable units.



7 John has 12 cans of dog food.
He has two dogs and he gives each dog $\frac{2}{3}$ of a can of dog food each day.
Does he have enough dog food to last one week?

8 This week Harry spent ½ of his pocket money on a ticket for a football match. He also spent $\frac{1}{8}$ of his pocket money on a scarf at the match.

a) What fraction of his pocket money has Harry spent?

b) What fraction of his pocket money does Harry have left?

9 Kelly spends $\frac{1}{4}$ of her savings on driving lessons.

Kelly then spends $\frac{2}{3}$ of her remaining savings on a new car.

What fraction of her savings has Kelly spent?

Challenge questions

1 Work out

$$\frac{9}{10} + \left(\frac{5}{7}\right)^2$$

2 Helen is cutting lengths of string from a roll that is $9\frac{1}{3}$ metres long.

Each length of string is $\frac{1}{9}$ metres long.

How many lengths of string can Helen cut from the roll?

3 The distance from Newtown to Milton is $7\frac{2}{3}$ miles.

The distance from Milton to Redville is $2\frac{2}{5}$ miles

Work out the distance from Newtown to Redville.

4 A wall measures $3\frac{3}{4}\,m$ by $4\frac{1}{3}\,m$

Each can of paint cover $2.5m^2$ and costs £5.50

Work out the cost of painting the wall.

5 Shown below is a "magic square"
Each column, row and diagonal has the same total.
Work out the missing fractions.

$\frac{1}{10}$		$\frac{3}{10}$
$\frac{9}{20}$		
$\frac{1}{5}$	$\frac{3}{20}$	

Support

There are 7 days in one week

Area of a rectangle = length x width

To find the perimeter you add up all of the sides.

A rectangle has two pairs of equal length sides (the top and the bottom are the same length and the left and right side are the same length)

Reflect
Fill in the reflection template below.

Reflection:

What did I learn about today?

What did I find easy?

What did I struggle with?

Extra Support:

- Make sure you have watched the videos included
- Ask for help on Google Classrooms

Extension:

Complete the challenge questions on the previous page.

SUBJECT	Biology - Pathogens	YEAR	10

SUPPORT

Biology revision guide

https://www.youtube.com/watch?v=wUm71FPuVCQ

ACTIVATE

Copy and complete the table for each disease.

Disease	Symptom	Method of transmission	Control spread of disease by:	Caused by:
Measles	Fever Red skin rash		Child Vaccination	
	Fever, cramp, vomiting, diarrhoea	Food prepared in unhygienic conditions or not cooked properly		**Bacteria**
Rose Black Spot	Purple black spots on leaves		Remove infected leaves and spray with pesticide	
Gonorrhoea		Direct sexual contact or body fluid exchange	Use of a condom and treat infected person with antibiotics	**Bacteria**
	Recurrent fever	By a vector from an infected person	Preventing breeding of mosquitoes or use of a net to prevent being bitten	
Tobacco Mosaic Virus	Mosaic pattern on leaves			**Virus**

EXPLAIN

Pathogens are microorganisms such as viruses and bacteria that cause infectious diseases in animals and plants. They depend on their host to provide the conditions and nutrients that they need to grow and reproduce. They frequently produce toxins that damage tissues and make us feel ill.

We can avoid diseases by reducing contact with them. The body uses barriers against pathogens. Once inside the body our immune system is triggered which is usually strong enough to destroy the pathogen and prevent disease.

When at risk from unusual or dangerous diseases our body's natural system can be enhanced by the use of vaccination. Since the 1940s a range of antibiotics have been developed which have proved successful against a number of lethal diseases caused by bacteria. Unfortunately many groups of bacteria have now become resistant to these antibiotics. The race is now on to develop a new set of antibiotics.

Communicable (infectious) diseases

The diseases caused by viruses, bacteria, protists and fungi are spread in animals and plants. However, the spread of diseases can be reduced or prevented.

Pathogens are microorganisms that cause infectious disease. Pathogens may be viruses, bacteria, protists or fungi. They may infect plants or animals and can be spread by direct contact, by water or by air.

Bacteria and viruses may reproduce rapidly inside the body. Bacteria may produce poisons (toxins) that damage tissues and make us feel ill. Viruses live and reproduce inside cells, causing cell damage.

Viral diseases

Measles is a viral disease showing symptoms of fever and a red skin rash. Measles is a serious illness that can be fatal if complications arise. For this reason most young children are vaccinated against measles. The measles virus is spread by inhalation of droplets from sneezes and coughs.

HIV initially causes a flu-like illness. Unless successfully controlled with antiretroviral drugs the virus attacks the body's immune cells. Late stage HIV infection, or AIDS, occurs when the body's immune system becomes so badly damaged it can no longer deal with other infections or cancers. HIV is spread by sexual contact or exchange of body fluids such as blood which occurs when drug users share needles.

Tobacco mosaic virus (TMV) is a widespread plant pathogen affecting many species of plants including tomatoes. It gives a distinctive 'mosaic' pattern of discolouration on the leaves which affects the growth of the plant due to lack of photosynthesis.

Bacterial diseases

Salmonella food poisoning is spread by bacteria ingested in food, or on food prepared in unhygienic conditions. In the UK, poultry are vaccinated against Salmonella to control the spread. Fever, abdominal cramps, vomiting and diarrhoea are caused by the bacteria and the toxins they secrete.

Gonorrhoea is a sexually transmitted disease (STD) with symptoms of a thick yellow or green discharge from the vagina or penis and pain on urinating. It is caused by a bacterium and was easily treated with the antibiotic penicillin until many resistant strains appeared. Gonorrhoea is spread by sexual contact. The spread can be controlled by treatment with antibiotics or the use of a barrier method of contraception such as a condom.

Fungal diseases

Rose black spot is a fungal disease where purple or black spots develop on leaves, which often turn yellow and drop early. It affects the growth of the plant as photosynthesis is reduced. It is spread in the environment by water or wind. Rose black spot can be treated by using fungicides and/or removing and destroying the affected leaves.

Protist diseases

The pathogens that cause malaria are protists. The malarial protist has a life cycle that includes the mosquito. Malaria causes recurrent episodes of fever and can be fatal. The spread of malaria is controlled by preventing the vectors, mosquitos, from breeding and by using mosquito nets to avoid being bitten.

PRACTISE

Q1.

Microorganisms can cause disease.

(a) Draw **one** line from each disease to the correct description.

HIV	Can be spread by not washing hands thoroughly.
	Can increase the chance of infection such as pneumonia.
Malaria	Part of the life cycle includes an insect.
	spread by cough and sneezes.
Salmonella	Treated with stem cell.
	Treated with fungicides.

(3)

(b) Gonorrhoea is a sexually transmitted disease.

A bacterium causes gonorrhoea.

What are the symptoms of gonorrhoea?

Tick **two** boxes.

- Headache ☐
- Pain when urinating ☐
- Rash ☐
- Vomiting ☐
- Yellow discharge ☐

(2)

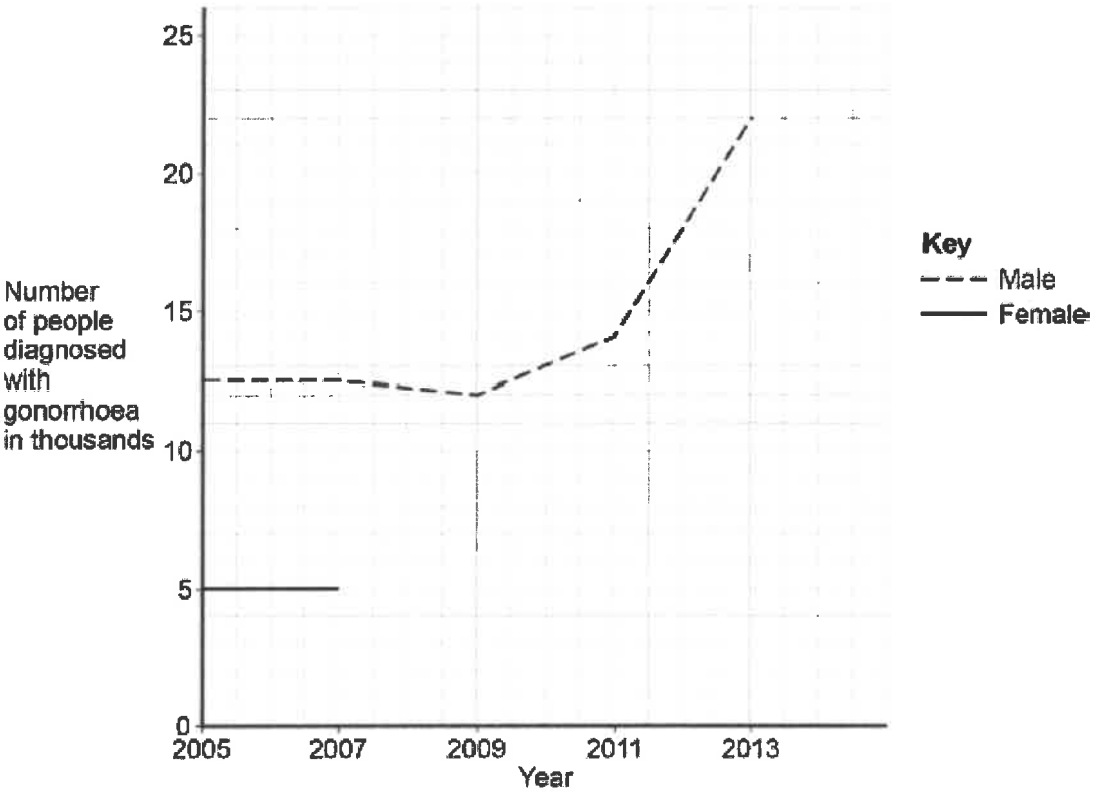
(c) The table below shows the number of people in the UK diagnosed with gonorrhoea in different years.

Number of people

Year	Number of people diagnosed with gonorrhoea in thousands: Female	Male
2005	5.0	12.5
2007	5.0	12.5
2009	5.5	12.0
2011	6.0	14.0
2013	7.5	22.0

Use the data in the table to complete the graph below.

- The numbers for males have already been plotted.
- Only some of the numbers for females have been plotted.



(3)

(d) Describe the patterns in the numbers of males and females with gonorrhoea from 2005 to 2013.

Use the data in the graph.

_____

_____

_____

_____

_____ **(3)**

(e) Gonorrhoea is treated with an antibiotic.

HIV is another sexually transmitted disease.

Explain why prescribing an antibiotic will **not** cure HIV.

_____

_____

_____

_____ **(2)**

(Total 13 marks)

Q2.

Read the following passage.

One of the deadliest diseases seems to be making a comeback in Britain. Doctors are alarmed at the rising number of cases of tuberculosis (TB). TB is caused by microbes called bacteria. When people carrying the TB bacteria cough or sneeze, the TB bacteria get into the air. Other people may then breathe them in.

(a) Which organs will be infected first when someone breathes in the TB bacteria?

_____ **(1)**

(b) Explain how the TB bacteria inside the body may cause disease.

_____

_____ **(2)**

(c) Name **one other** group of microbes that often causes disease.

_____ **(1)**

(d) Suggest why people who live in overcrowded areas are more likely to catch TB than people who live in less crowded areas.

_____

_____ **(1)**

(e) People infected with a small number of TB bacteria often do **not** develop the disease.

Explain, as fully as you can, how the body defends itself against the TB bacteria.

_____

_____

_____

_____

_____

_____

(3)

(Total 8 marks)

Q3.

A child has a sore throat. The mother takes the child to the doctor. The doctor says that the child has a bacterial infection.

Explain how the infection makes the child ill.

_____

_____

_____

_____

(Total 2 marks)

REFLECT

Answer these four recall questions (try to do these without looking back at your work or the notes)

1. What is the definition of a pathogen?

2. List four types of micro-organism which can act as pathogens.

3. . Complete the sentences:

HIV can be successfully controlled with _____drugs. If the immune system is badly damaged then _____ may develop.

4. What do pathogens need from the host organism?

There is also a SENECA assignment for you to complete on this topic.

Class code:**nnluk58tcs**

SUBJECT	Physics	YEAR	10

SUPPORT	Revision guide pages 40 and 41 https://www.youtube.com/watch?v=86ChgK38EIA https://www.youtube.com/watch?v=hIYdxQuzb60

ACTIVATE	**The story of Archimedes (That "Eureka" Moment):** According to Vitruvius, a votive crown for a temple had been made for King Hiero II, who had supplied the pure gold to be used, and Archimedes was asked to determine whether some silver had been substituted by the dishonest goldsmith. Archimedes had to solve the problem without damaging the crown, so he could not melt it down into a regularly shaped body in order to calculate its density. While taking a bath, he noticed that the level of the water in the tub rose as he got in, and realized that this effect could be used to determine the volume of the crown. For practical purposes water is incompressible, so the submerged crown would displace an amount of water equal to its own volume. By dividing the mass of the crown by the volume of water displaced, the density of the crown could be obtained. This density would be lower than that of gold if cheaper and less dense metals had been added. Archimedes then took to the streets naked, so excited by his discovery that he had forgotten to dress, crying "Eureka!" meaning "I have found it". The test was conducted successfully, proving that silver had indeed been mixed in.

EXPLAIN	**How to calculate density:** Density = $\frac{\text{Mass}}{\text{Volume}}$ **Example:** What is the density of a 100kg 50cm³ block of copper? Formula: Density = mass / volume Maths: = 100kg / 50cm³ Answer with **UNITS**: = 2kg/cm³

PRACTISE	1. A student measures the mass of an 8cm³ block of brown sugar to be 32g. What is the density of the brown sugar? (3 marks) 2. A chef fills a 50 cm³ container with 250g of cooking oil. What is the density of the oil? (3 marks) 3. A piece of cork has a mass of 24g and a density of 6g/cm³. What is the volume of the piece of cork? (3 marks) 4. A carver begins work on a block of granite that has volume of 1000cm³ and a density

of 5g/cm^3. What is the mass of the block of granite? (3 marks)

5. A box has a volume of 55cm^3 and a density of 5g/cm^3. What is the mass of the box? (3 marks)

6. A wooden cylinder has a density of 4g/cm^3 and a mass of 48g. What is the volume of the wooden cylinder? (3 marks)

7. A wooden block has a volume of 12cm3 and a density of 3g/cm^3. What is the mass of the wooden block? (3 marks)

8. An ice block measuring 5cm by 5 cm by 5cm has a density of 5g/cm^3. What is the mass of the ice block? (4 marks)

TOTAL 25 marks

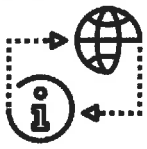
REFLECT

Kevlar has a density of 1.44 g/cm^3. Convert this value into kg/m^3.

Why does the density of steel decrease if you heat it up?

SUBJECT	**C29.06 Chemistry:** How can we reduce our greenhouse gas emissions? A letter from Greta.	YEAR	10

SUPPORT



This session is about our greenhouse gas emissions and the ways of reducing them.
The tasks are replicated in Google classroom with some further support materials. If you complete the activities on-line you will not need to complete the booklet and return it to school.

- **Videos:** view these if you can, they are very good.
- https://www.youtube.com/watch?v=rYxt0BeTrT8 Greta tells world leaders off!
- https://www.youtube.com/watch?v=ilfqxt90ED4 Free GCSE science lessons.
- https://www.bbc.co.uk/bitesize/guides/zxy4xfr/revision/2 Several pages on the BBC bitesize site,
- PowerPoint presentation to support the delivery of the lesson.
- An exemplar of a formal letter to support your Practise task.

The knowledge organiser for this unit was issued two weeks ago.
Pages 3 & 4 of the work-pack: some sources of data and scientific facts to help with your Practise task. Revision guides should be at home.

ACTIVATE

Page 2:
Which human activities contribute the most to the enhanced greenhouse effect?
Study the pie charts and using the advice from the PowerPoint presentation answer the questions.

EXPLAIN

Pages 3-4
We all have a responsibility to reduce our greenhouse gas emissions.

- The two most important greenhouse gases are methane and carbon dioxide.
- Human activities such as burning fossil fuels for transport and electricity generation have increased the quantity of carbon dioxide.
- Human activities such as Growing rice and animals for food and disposing of waste in land fill sites have increased the levels of methane.

There are many things that we can do as both individuals and as a society to reduce the emissions of these gases.
Read through the text and watch the video of Greta Thunberg in the support section above if you can.

PRACTISE

Pages 5-8:
After watching the video and reading the explanatory notes on pages 3 & 4, complete your letter from Greta. You can write a letter from Greta which:

- is to your parents / carers explaining how your family can reduce your emissions.
- is a letter to Mr Cooke explaining how Unity Academy can reduce its emissions.

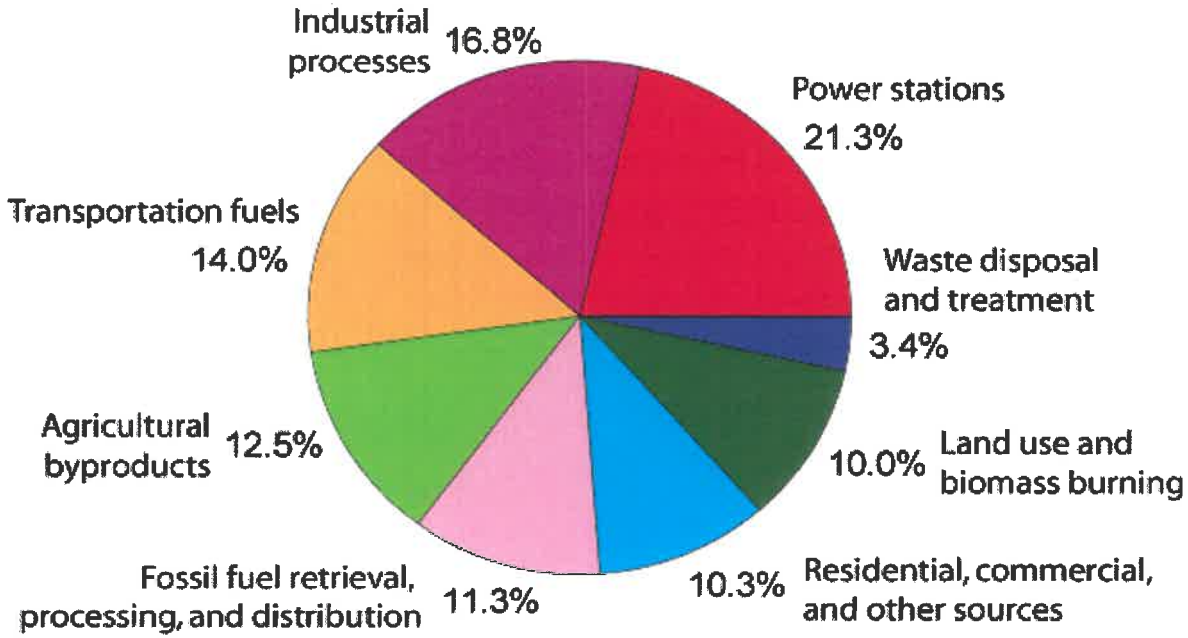
If you are working in Google classroom, the feedback will be given shortly after submission.
If you are working online there is also a Seneca assignment to complete. **Reminder of the class code:1o35ntmtpe**
English language paper 2, will have a question asking you to express your point of view using strong argument on a particular topic. This task links nicely to it, Use the skills learned in English to construct a letter that contains scientific facts and data, strong argument, persuasive and emotive language, metaphors, a range of punctuation and effective paragraph structure

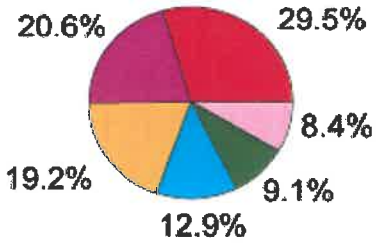
REFLECT

If you are working in Google classroom the feedback and Seneca will be returned to you.
A model answer to the "activate" will be issued with next week's tasks along with guidance to help you to self-assess your work.
How well did you do last week? Use the Reflection sheet to self-assess your work. Please send me your scores / photos of your work, I want to see them.

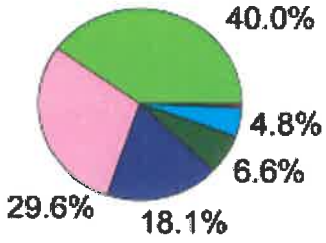
Activate:
Which human activities contribute the most to the enhanced greenhouse effect?

Annual Greenhouse Gas Emissions by Sector

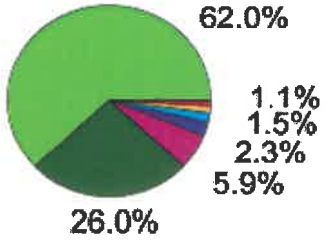




Carbon Dioxide
(72% of total)



Methane
(18% of total)



Nitrous Oxide
(9% of total)

1. Which sector produces the most greenhouse gas?

2. Which sector produces the least amount of carbon dioxide?

3. Which sector produces the most amount of methane (CH_4)

4. Describe which sectors contributes the most towards global climate change – why?

Watch the video of Greta Thunberg's speech to world leaders. https://www.youtube.com/watch?v=rYxt0BeTrT8 How was she persuasive?
Here are some tips on how we can reduce our greenhouse gas emissions on an individual level and as a school.

Top options for reducing your carbon footprint

Average reduction per person per year in tonnes of CO2 equivalent

Live car-free **2.04**	Refurbishment /renovation **0.895**
Battery electric car **1.95**	Vegan diet **0.8**
One less long-haul flight per year **1.68**	Heat pump **0.795**
Renewable energy **1.6**	Improved cooking equipment **0.65**
Public transport **0.98**	Renewable-based heating **0.64**

Source: Centre for Research into Energy Demand Solutions BBC

AccuWeather

Other ways to reduce carbon emissions

Recycling

Recycling one aluminum can saves 90 percent of the energy required to make a new one.

Solar power

Each solar kilowatt-hour offsets more than one pound of carbon dioxide.

LED lightbulbs

New LED light bulbs give the same light for 15 percent of the electricity. Using them can reduce your carbon footprint by 6 tons per year.

Planting trees

One tree's shade can save the same amount of energy that 10 air conditioners need to run for 20 hours per day.

Reducing our Carbon Footprint

Five simple actions

We can all play our part in fighting climate change, working together and being more aware of how our actions affect the amazing world we live in. If we each take small steps it will make a BIG difference.

Here are 5 simple actions we can all take.

1. Turn off lights...

...as well as TV's, computers or other electronic gadgets when you are not using them. And check your home has energy saving lightbulbs!
Cool tip: why not turn the water off while you brush your teeth too?

2. Paper.

Use both sides when writing, drawing or coloring - double the fun!
Cool tip: set aside a place for scrap paper so it doesn't immediately go into the recycling bin.

3. Woolies = Warmth!

Wear a jumper and turn down the heating when it's cold! Sweaters, blankets, and socks are good for you and better for the planet.
Cool tip: wash clothes at 30°C and don't use a tumble dryer! Washing clothes in cold water reduces a typical washing machine's electricity usage by 90%!! Save more energy and water by only washing full loads or reducing water levels for small loads.

4. Grow your own.

It is surprisingly easy and fun to grow fruits and vegetables at home, even in small spaces. It teaches kids the importance of taking care of the earth around us and as the food travels a much smaller distance to get to the table, less CO2 enters the air from fossil-fuel-burning trucks, planes, and ships that transport food from far away. It also means fewer car journeys to the supermarket!
Cool tip: if you can't grow your own, try to buy local, organic, seasonal produce and drink tap water.

5. Leave the car at home.

A 2-mile car trip puts 2 pounds of CO2 into the atmosphere so when you can, walk, ride your bike or scoot instead of taking a car.
Cool tip: while you're walking, talk about the fumes that cars emit into the air, and how walking is a way to keep the air clean and clear.

A big carbon footprint is bad for the planet.
Your choices can make a difference.
Show you care about our future.

Reducing our Carbon Footprint

Five simple actions

Want to do even more?

Here are more ideas for your school and at home.

School Green Teams / Energy Monitors.

Why not set up a Green Team, with a representative from each class, that ensures lights aren't used unnecessarily in the daytime and that everything is turned off each time the class leaves the classroom?

School Solar panels.

If you don't have them already, maybe your school could consider installing solar panels to reduce their energy usage? Many companies/ or organisations such as evoenergy.co.uk and solarforschools.co.uk help schools with affordable schemes or to raise funds for panels.

The three R's - Recycle, Reduce, Reuse - are activities we can all think about as we go through our everyday lives.

Plant a tree.

Plants and trees help to remove the harmful greenhouse gas CO2 from the air. Why not encourage your school to plant some new trees or plant one in your garden at home?

Calculate your schools carbon footprint!

Use The Carbon Detectives website to see your school's footprint.

www.carbonpartners.org.uk

What is a 'carbon footprint'?

Unlike your footprints in wet sand, your carbon footprint can't be seen. However, we all leave a carbon footprint, which impacts our planet, leaving a mark, just like our footprints in wet sand.

When we talk about our 'carbon footprint' we mean the amount of carbon dioxide (a greenhouse gas also known as CO2) we release into the air because of our own energy needs. For example, every time we use energy that comes from fossil fuels - such as coal, oil and natural gas - to heat our homes, drive a car, journey by plane on holiday or eat food that was grown overseas, we create carbon dioxide and make our carbon footprint bigger.

Most scientists believe that greenhouse gases such as carbon dioxide are one of the biggest causes of global warming and climate change.

Find out more!

NASA's ClimateKids website has lots more information on energy and climate change

https://climatekids.nasa.gov

Here is an example of a formal letter, which has been annotated to show the skills learned in English Language lessons. Try to use these skills in your letter from Greta.

Tablets should replace textbooks in Secondary Schools

Letter to council

Statistical evidence

1 Smith Street
Wandsworth
London
1SS WL1

21st April 2018

12 Jones Road
Morden
London
12JR ML1

Appropriate use of 'letter' form

Dear Sir/Madam,

I am writing to you to consider the vast impact that school's can have on the environment. I am a student at a school in Surrey and I would like to address some concerns my fellow classmates and I have regarding the wealth of pollution and what schools can do to address it.

Formal language

Currently, we are young people that are growing up amid air quality concerns, a disappearing natural world and an increasingly disengaged youth. I'm sure this is not what the older generation had planned to leave for us, however this is the disaster we are members of. In order to improve anything environmentally, the Government needs to tackle the largest institutions: businesses, universities, and schools.

triplet

emotive language

metaphor

Schools are a melting pot of liberal and change-hungry children, all desperate for something to improve their disintegrating prospects. What better place than to start than there? Young people need to have adult responsibility modelled for them; to witness for themselves the consequences that humans can have on this planet, and the steps we take to right any wrongs. It has been noted that the council does currently recycle for all schools in the area. But we can go one step further. Technology.

rhetorical question

range of punctuation

variation of sentence types

1 word sentence

paralleling of ideas to maximise impact

I would like to insist to you the solution that is technology. Textbooks and reading books costs the council millions of pounds, and costs the Earth millions of trees - every single year. Books are a costly expense, and the process of producing one book requires cheap labour, an excessive amount of water and, of course, the life of many trees. In addition to this, schools spend over £5000 a month on the printing of resources, and are quite often hassled to limit this significantly to coincide with budgeting. Limit the resources and you limit the learning. While a tablet may seem like a costly luxury, they can hold hundreds of textbooks and thousands of resources. Printing is an archaic method of destroying the environment, nothing more.

'factual' evidence

repetitive phrase

I understand that using tablets may seem like an intimidating modern world dream. But they are a new solution to an old problem.

effective paragraph structure for powerful phrasing.

While students become less engaged with the paperback form, they become more excited by technology, and using tablets is preparing them for a lifetime of screens. Computers and tablets are common workplace products, and young people need to learn how to use these effectively and safely. Additionally, tablets have been statistically evidenced to increase a person's creativity - when directed to the correct materials. There is an average of a 15% increase in students achieving a 7-9 result in creative subjects if they have been taught using a tablet. 15%. I implore you took look at the research that has been undertaken in schools, with regards to a student's education.

More than 1 idea

Statistical evidence

persuasive, emotive verbs

Quite simply, it is vital that we do something about the environmental impact that our schools are having, and acknowledge the positive power that technology can hold. Tablets are cheaper overall than paper books, drastically improve student attainment, and lower the amount of printing significantly. We already live in a technological world, why fight it?

alliteration

rhetorical question and inclusive 'we'

Thank you for taking the time to read this letter, and I hope you seriously consider my suggestion.

Yours faithfully,

Sally Mole

Appropriate sign off in line with 'letter' form. Use of 'yours faithfully' as I didn't know their name (Sir/Madam).

In your letter try to include:

- your views on **why** we as a society should decrease our emissions of greenhouse gases
- your views on **what** some of the activities that either your family or the Academy which are contributing to the greenhouse gas emissions.
- things that either your family or Unity Academy **can do** to reduce greenhouse gas emissions.
- as well as any other ideas you might have.

Remember to use AFOREST:

- Alliteration
- Facts
- Opinion
- Rhetorical question
- Emotive language
- Statistics
- Triplets

*Your response will be marked for the accurate and appropriate use of vocabulary, spelling, punctuation and grammar.

Here is my letter from Greta:

Option Subjects

Only complete the work relevant to the option subjects you study.

W/B: 29/06/2020

Year 10

SUBJECT	History	YEAR	10

SUPPORT

Any questions history@unity.fcat.org.uk
Seneca course - You have access to the full Britain: Health and the people course
BBC Teach Medicine through time videos
https://www.youtube.com/playlist?list=PLcvEcrsF_9zJ8AqMTFZycm46Ks4DdSaLM
https://www.youtube.com/playlist?list=PLwcRjBG2r8wbaW5nJ0ydEN8N3Jy_PJGQW brilliant playlist on Medicine through time by Mr Hemphill
Google classroom for video -
https://www.loom.com/share/9f486086a257485c84c1140e3866b7b6

ACTIVATE

Retrieval Grid - Britain: Health and the people

Chance	Religion	War
Public Health	Government	Science and technology
Medicines/treatments	Surgery	Anatomy

Take two of these and spend 5 minutes writing everything you know about them **without looking!**

Remember - knowledge does overlap across themes.

EXPLAIN

On the Britain: Health and the people course there are four questions

1. How useful…8 marks
2. Explain the significance of...8 marks
3. Compare...similar/different 8 marks
4. Factors statement question 16 marks + 4 SPaG

This week we are going to look at each question, the top tips, the mark scheme and then an example for you to complete. There will be short video clips to go with this in your Google Classroom. If you want these marked with feedback please load them up to the assignments for this week in the classroom.

1. How useful...8 marks https://www.loom.com/share/0cb4d6869bfd43f8a133335de127ed0d

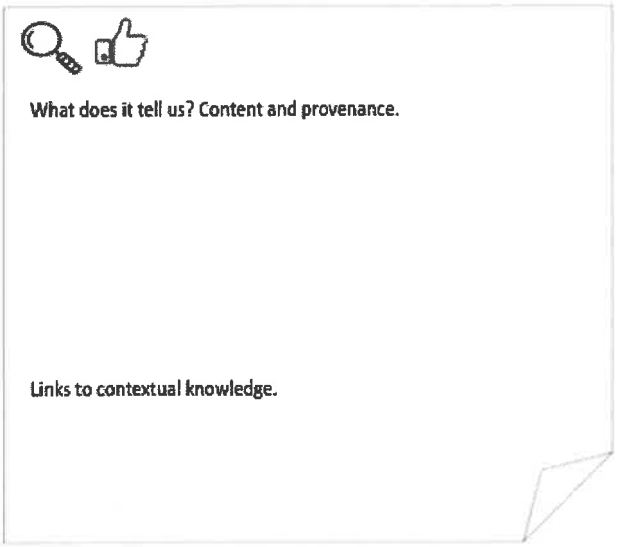
Top tip - usefulness questions

The examiners have chosen a source to investigate.

REMEMBER - ALL SOURCES ARE USEFUL!

The question you should ask is useful for what? What can this source tell me? How does this link to my contextual knowledge.

You must consider the content and the provenance of the source whilst comparing it to your knowledge.



Mark scheme – what do you need to do?

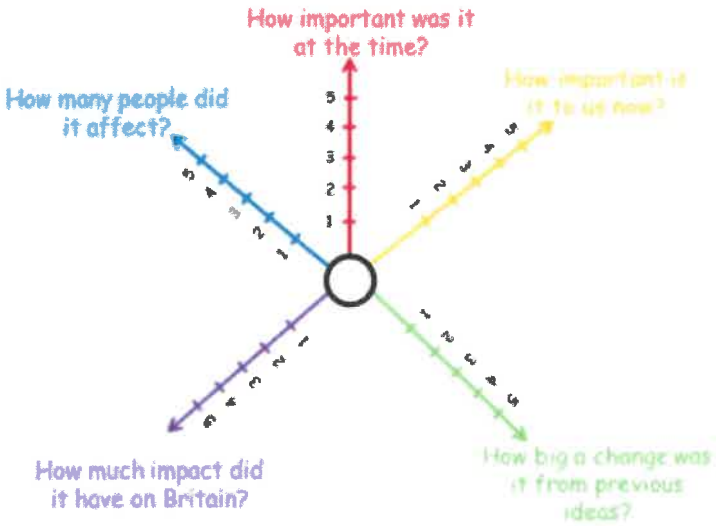
Level 4 7-8	Complex evaluation of source with sustained judgement based on content and provenance. Balanced judgements of the source supported by factual knowledge and understanding related.
Level 3 5-6	Developed evaluation of source based on content and/or provenance. Supported by factual knowledge and understanding. One sided
Level 2 3-4	Simple evaluation of source based on content and/or provenance. Giving reasons supported with factual knowledge and understanding.
Level 1 1-2	Basic analysis of source. Identify basic features.

2. Explain the significance...8 marks
https://www.loom.com/share/3df614565e974e95a167afea33a5fd1b

Top tip - significance questions

Significance questions want to know about the importance of an event and its impact. This could be impact at the time or later. When we study these questions in class we use the significance star.

Make sure you analyse the question and have identified the topic the question refers to.



Explain the significance of the work of…in the development of surgery? [8 marks]

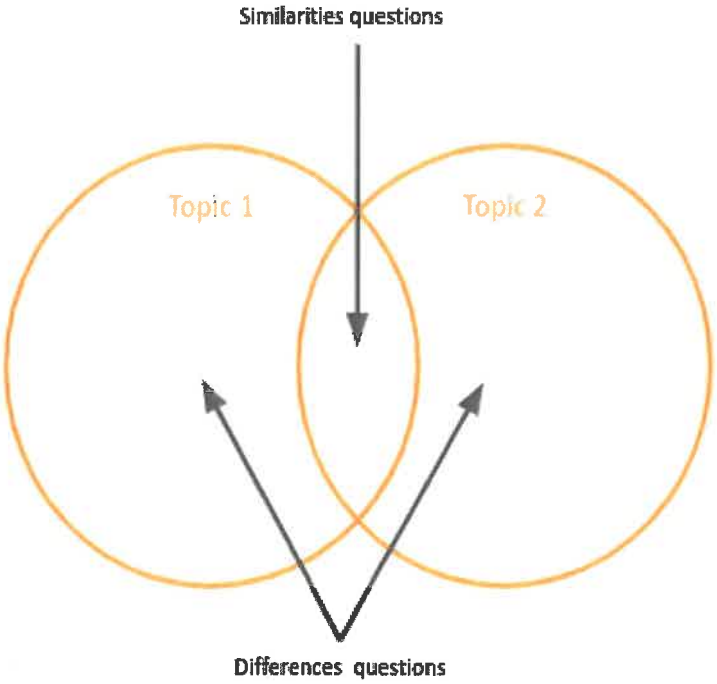
Level 4 7-8	Complex explanation of aspects of significance Answer demonstrates specific knowledge and understanding that is relevant to the question.
Level 3 5-6	Developed explanation of aspects of significance Answer demonstrates specific knowledge and understanding that is relevant to the question. (2 or more aspects)
Level 2 3-4	Simple explanation of one aspect of significance Answer demonstrates specific knowledge and understanding that is relevant to the question.
Level 1 1-2	Basic explanation of aspect(s) of significance Answer demonstrates basic knowledge and understanding that is relevant to the question.

3. Compare...similarity/difference 8 marks
https://www.loom.com/share/2e3f9cce9a6d4039a94b2014eb88a19d

Top tip - similarity/difference questions

Remember this question wants SIMILARITIES OR DIFFERENCES depending on the wording of the question. They have chosen these two topics because there are some. Try to explain at least two similarities using contextual knowledge.

To plan write a list of what you know about each topic. As you can see you use different knowledge depending on if the question is similarities or differences.



Similarity/difference question [8 marks]

Level 4 7-8	Complex explanation of aspects of similarities or differences (depending on the word in the question) using a range of accurate and detailed knowledge in the broader context.
Level 3 5-6	Developed explanation of 2 or more similarities or differences (depending on the word in the question)
Level 2 3-4	Simple explanation of one similarity or difference (depending on the word in the question) Answer demonstrates specific knowledge and understanding that is relevant to the question.
Level 1 1-2	Basic explanation identifying similarity or difference (depending on the word in the question) Answer demonstrates basic knowledge and understanding that is relevant to the question.

4. Factors statement question 16 marks + 4 SPaG
https://www.loom.com/share/63eed0f11bf94086b600c1f543b9833d

Top tip - factor questions

This question gives you a statement which you need to analyse. There will be a named factor which is what you start with.

Paragraph one - how the named factor and how this has done what the statement refers to.

Paragraph two - choose one or two other factors and explain how they contributed. These are listed below.

Remember in class I usually way my two hands at you to remind you 'On the one hand…' for paragraph one. 'On the other hand…' for paragraph two.

Then add your conclusion making sure you answer the question 'How far do you agree.'

Factors questions (16 + 4 SPaG)

Level 4 13 - 16	Complex statement of stated factor and other factor(s) leading to a sustained judgement. Answers demonstrate a range of accurate and detailed knowledge and understanding that is relevant to the question.
Level 3 9-12	Developed explanation of the stated factor and other factor(s). Answer demonstrates a range of accurate knowledge and understanding that is relevant to the question.
Level 2 5-8	Simple explanation of the stated factor or other factor(s). Answer demonstrates specific knowledge and understanding that is relevant to the question.
Level 1 1-4	Basic explanation of one or more factors. Answer demonstrates basic knowledge and understanding that is relevant to the question.

PRACTISE

1. How useful is Source B for understanding Christian ideas about illness? 8 mark

SOURCE B A sixteenth-century painting showing Saint Elizabeth of Hungary (tending to the patient, bottom left), who was famous in the thirteenth century for helping the poor and the sick

2. Explain the significance of the creation of the National Health Service in the advancement of public health in the twentieth century. 8 marks

3. Compare the legislation on public health in the mid-1800s with the Liberal Reforms of the early 1900s. In what ways were they similar? 8 marks

4. Science and technology had been the main factor in helping surgery progress from 1500 until the present day. How far do you agree? Explain your answer with reference to science and technology and other factors. 16 + 4 SPaG 20 marks

REFLECT

For each of your answers give yourself a level, mark and a comment. Use the mark schemes to help you.

1. How useful is Source B for understanding Christian ideas about illness? 8 marks
Level Mark /8 Comment

2.Explain the significance of the creation of the National Health Service in the advancement of public health in the twentieth century. 8 marks
Level Mark /8 Comment

3.Compare the legislation on public health in the mid-1800s with the Liberal Reforms of the early 1900s. In what ways were they similar? 8 marks
Level Mark /8 Comment

4. Science and technology had been the main factor in helping surgery progress from 1500 until the present day. How far do you agree? Explain your answer with reference to science and technology and other factors. 16 + 4 SPaG 20 marks
Level Mark /16 SPaG /4 Comment

SUBJECT	Geography	YEAR	10

SUPPORT	- Double page from the textbook. - Revision guides at home - Knowledge organisers at home - Video link where possible: https://www.youtube.com/watch?v=yv5m25jZHF8
ACTIVATE	Start by watching the video, if possible, as it will give you a good, broad knowledge of the topic. After, read through the double page of information and make notes of anything you feel is important. This can be done in the reflection log format but if you prefer doing it differently then you can.
EXPLAIN	On the double page there are multiple questions to attempt and an exam style question. Complete the questions first to the best of your ability and then attempt the practise question.
PRACTISE	If you can, watch the voice over video, as it will help explain how to answer the question. If not, don't worry, the information will be available from the double pages. Describe the primary and secondary effects of a tropical storm. Use a named example and your own knowledge. (9 marks)
REFLECT	The following week will have a model answer. When you receive it and have attempted the question see what is missing and add to your own answer.

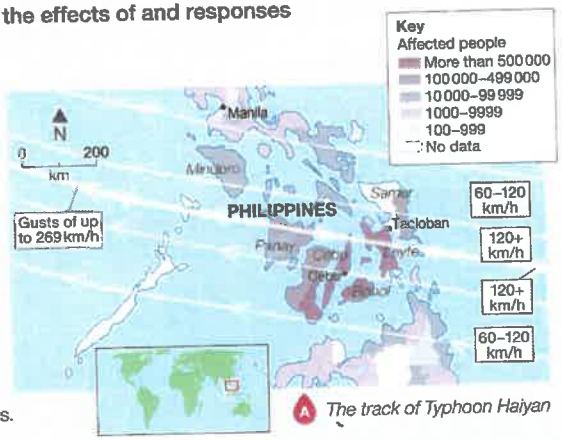
3.4 Typhoon Haiyan – a tropical storm

On this spread you will find out about the effects of and responses to Typhoon Haiyan

Example

Tropical storms can have devastating effects on people and property. The strong winds can tear off roofs, overturn cars and make large objects fly. Torrential rain can lead to flooding. Strong winds and low atmospheric pressure may cause the sea level to rise by several metres to form a destructive storm surge. These storm surges cause the most loss of life.

Tropical storms can be tracked and warnings given for people to evacuate coastal areas. In the aftermath, people need emergency support. Reconstruction may take many months.



A *The track of Typhoon Haiyan*

What happened?

In November 2013 'Super' Typhoon Haiyan – a category 5 storm on the Saffir-Simpson scale – hit the Philippines (map **A**). Huge areas of coastline and several towns were devastated by winds of up to 275 km/h (170 mph) and waves as high as 15 m (45 ft). It was one of the strongest storms ever recorded.

What were the effects of Typhoon Haiyan?

The province of Leyte took the full force of the storm. The city of Tacloban was one of the worst affected places, with most of the 220 000 inhabitants left homeless.

Most of the destruction in Tacloban was caused by a 5-metre high *storm surge*. This is a wall of water similar to a tsunami. The very low atmospheric pressure associated with the typhoon caused the level of the sea to rise. As the strong winds swept this water onshore, it formed a wall of water several metres high.

B *The destruction at Tacloban*

Primary effects (impacts of strong winds, heavy rain and storm surge)

- About 6300 people killed – most drowned by the storm surge.
- Over 600 000 people displaced and 40 000 homes damaged or flattened – 90% of Tacloban city destroyed.
- Tacloban airport terminal badly damaged.
- The typhoon destroyed 30 000 fishing boats.
- Strong winds damaged buildings and power lines and destroyed crops.
- Over 400 mm of rain caused widespread **flooding**.

Secondary effects (longer-term impacts resulting from primary effects)

- 14 million people affected, many left homeless and 6 million people lost their source of income.
- Flooding caused landslides and blocked roads, cutting off aid to remote communities.
- Power supplies in some areas cut off for a month.
- Ferry services and airline flights disrupted for weeks, slowing down aid efforts.
- Shortages of water, food and shelter affected many people, leading to outbreaks of disease.
- Many jobs lost, hospitals were damaged, shops and schools were destroyed, affecting people's livelihoods and education.
- Looting and violence broke out in Tacloban.

What were the responses to Typhoon Haiyan?

Immediate responses

- International government and aid agencies responded quickly with food aid, water and temporary shelters.
- US aircraft carrier *George Washington* and helicopters assisted with search and rescue and delivery of aid.
- Over 1200 evacuation centres were set up to help the homeless.
- UK government sent shelter kits (photo **D**), each one able to provide emergency shelter for a family.
- French, Belgian and Israeli field hospitals set up to help the injured.
- The Philippines Red Cross delivered basic food aid, which included rice, canned food, sugar, salt and cooking oil.

C *A survivor in Tacloban*

Long-term responses

- The UN and countries including the UK, Australia, Japan and the US donated financial aid, supplies and medical support.
- Rebuilding of roads, bridges and airport facilities.
- 'Cash for work' programmes – people paid to help clear debris and rebuild the city.
- Foreign donors, including the US, Australia and the EU, supported new livelihood opportunities.
- Rice farming and fishing quickly re-established. Coconut production – where trees may take five years to bear fruit – will take longer.
- Aid agencies such as Oxfam supported the replacement of fishing boats – a vital source of income.
- Thousands of homes have been built away from areas at risk from flooding.
- More cyclone shelters built to accommodate people evacuated from coastal areas.

D *The contents of a Shelter Box*

ACTIVITIES

1 Describe the track of the typhoon (map **A**).

2 a Why do you think so many buildings were destroyed (photo **B**)?

b What are the challenges facing the authorities in rebuilding this area?

3 a Why do you think the man in photo **C** appears happy despite all the destruction around him?

b What are his immediate needs and what are the challenges facing him in the future?

4 Describe the purpose of each of the items in the Shelter Box (photo **D**).

Stretch yourself

How has the city of Tacloban been rebuilt since the disaster struck? What is the situation like now? Is the city in a better position to cope with a future typhoon?

Practice question

Describe the primary and secondary effects of a tropical storm. Use a named example and your own knowledge. *(9 marks)*

Describe the primary and secondary effects of a tropical storm. Use a named example and your own knowledge. (9 marks)

Name an example – Typhoon Haiyan

Primary effects:

- Deaths and how

- People displaced and damage to homes

- Infrastructure

Secondary effects:

- Flooding, landslides and long term infrastructure.

- Transport problems.

- Health problems

- Jobs, and economy.

- Disruption

Model answer

Describe the primary and secondary effects of a tropical storm. Use a named example and your own knowledge. (9 marks)

In November2013 Typhoon Haiyan, a category 5 storm on the Saffir-Simpson scale, hit the Philippines. During the course of the typhoon there were numerous primary and secondary effects that took place. 6300 people were killed, most of which drowned due to the storm surge that in some places was up to 15m in height. Furthermore 600,000 people were displaced from the storm surges destroying homes. 90% of Tacloban city for example was completely destroyed. This also affected the airport which was significantly damaged. This made it challenging for aid to get into the country. A significant effect was also the destruction of power lines that prevented power reaching large portions of the country and crops being destroyed.

Some of the secondary effects included flooding and landslides from the large storm surge, high winds and excessive rainfall. Several landslides blocked roads which caused large areas to be cut off from receiving aid. Roads weren't the only transport system that was affected; ferry services and airline flights were disrupted for weeks which again, slowed down aid efforts.

Due to the large shortage in water, food and shelter several people experienced health problems as disease spread. This led to many people dying or becoming significantly ill. This was amplified by the hospitals being damaged and being in need of repair. Schools, workplaces and homes were also destroyed which affected people's livelihoods and education. Due to the disruption and breakdown of infrastructure significant looting and violence broke out in Tacloban.

Y10 French Week 3 En pleine forme

Discussing healthy living and using the imperative. Read and revise the key grammar below

You use the imperative to tell someone what to do or give them a command.
E.g. Watch the video! Write the date and title!
To do this in French, we use either the 'tu' or 'vous' form of the verb, however with 'er' verbs, we take the -s off the verb ending.
E.g. Regarde le vidéo! (tu form - i.e. to someone you know or 1 person).
Regardez le vidéo! (vous form of the verb - i.e. to more than one person, or someone you don't know).

Here are some more examples of the imperative.

Mange les carottes! - Eat the carrots! (tu form)
Mangez les frites! - Eat the chips! (vous form)

Fais tes devoirs! - Do your homework! (tu form)
Faites tes devoirs! - Do your homework! (vous form)

Entre la salle de classe! - Enter the classroom! (tu form)
Entrez la salle d classe! - Enter the classroom! (vous form)

Va! - Go! (tu form)
Allez!- Go! (vous form)

Sois en bonne forme! - Be in good shape (tu)
Soyez en bonne forme! -Be in good shape (vous)

N'aie pas peur! - Don't be afraid (tu form)
N'ayez pas peur! - Don't be afraid (vous form)
Note in French we say 'Don't have fear'

Using the imperative with reflexive verbs.
To do this we have to add -toi or -vous to the verb.

E.g. Amuse-toi! - Have fun! (tu form)
Amusez-vous! - Have fun! (vous form)

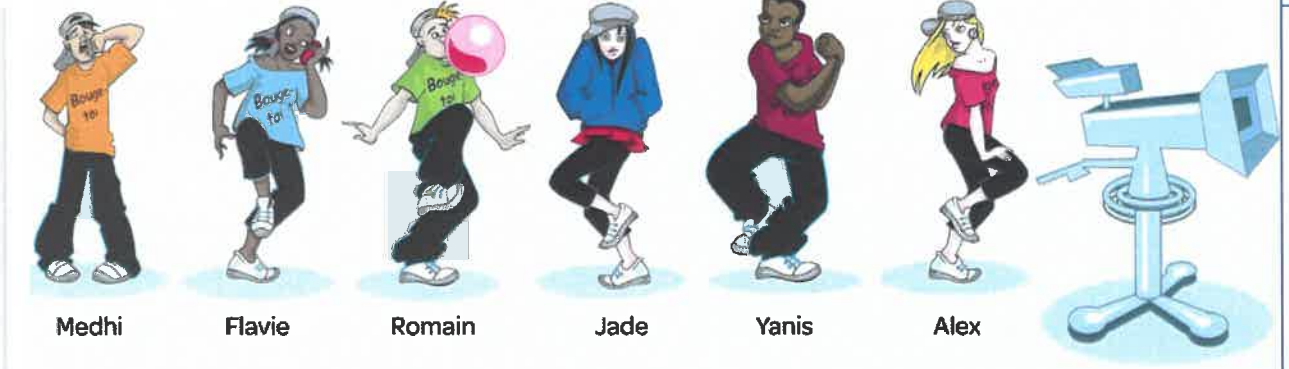
Habille-toi! - Get dressed! (tu form)
Habillez-vous! - Get dressed! (vous form)

Week 3 En pleine forme

Discussing healthy living and using the imperative. Complete the exercises below.

Ex 1

In each of the pictures below, the students are doing something wrong. Match their activity with one of the commands 1-6. E.g. 1 = Romain (Jette ton chewing gum! = throw away your chewing gum!)



1 Jette ton chewing-gum!
2 Éteins ton portable!
3 Fais plus d'efforts!
4 Regarde la caméra!
5 Enlève ton blouson!
6 N'oublie pas ta casquette!

Ex 3

Choose and ending for each sentence then write what it means in English.

1 Malik: Change de tee-shirt/ton attitude.
2 Coralie: Éteins ton portable/iPod.
3 Nathan: Jette ton bonbon/chewing-gum.
4 Félix: Enlève ton chapeau/blouson.
5 Olivia: Chante plus fort./Ne chante pas.
6 Laurine: Regarde la télé/caméra.

Ex 2

Lisez l'article. Trouvez les deux bonnes images pour chaque conseil.

Bonne santé, bonne scolarité! Voici cinq conseils pour réussir au collège.

1 **Mangez équilibré:** c'est simple, mangez un peu de tout! N'ayez pas peur de manger des matières grasses, mais choisissez les noix et le poisson gras, parce qu'ils sont bons pour la mémoire. Et n'oubliez pas de boire beaucoup d'eau.

2 **Soyez en bonne forme physique:** ça vous aide à vous concentrer en classe. On recommande de faire un minimum de 60 minutes de marche rapide par jour. Trop ennuyeux? Alors, faites une activité sportive: ça détend et vous vous ferez de nouveaux amis.

3 **Détendez-vous:** les contrôles vous stressent? Respirez à pleins poumons, faites de la méditation ou du yoga. Selon une étude, le chewing-gum peut réduire le stress et améliorer les compétences cognitives, mais pas en classe, bien sûr!

4 **Reposez-vous:** couchez-vous tôt et éteignez les écrans une heure avant d'aller au lit. Dormez au moins huit heures par nuit – le sommeil est très important et on ne peut pas apprendre si on est fatigué.

5 **Amusez-vous bien!** Profitez des sorties scolaires: une pièce de théâtre ou une visite au musée, ce sont souvent les moments les plus mémorables de la scolarité. Ou participez à la chorale: les recherches ont prouvé que le chant fait du bien au corps et à l'esprit.

Choose 2 of the paragraphs giving advice and translate them into English.

SUBJECT	Dance	YEAR	10

SUPPORT	Component 1 Exploring the Performing arts Research journal Your saved work in your home folder (laptop needed). If you don't have access to a computer then use the work pack that was sent out. AQA information sheets You tube: A Linha curva Rambert dance company You tube: Shadows Christopher Bruce You tube: Emancipation of expressionism Blue boy entertainment Old exercise book for key words and terminology GCSE Dance revision guide

ACTIVATE	You are going to carry out some research on Shadows by Christopher Bruce..

EXPLAIN	https://www.phoenixdancetheatre.co.uk/production/shadows/ Carry out research on the internet or use the GCSE Dance revision guide that was posted out. to gather some facts about each piece. Use pages 37, 38, 53. You are aiming for a half A4 page but you can present your research as you like. I want you to show me you have developed your knowledge of the piece.

PRACTISE	Your research should show me the following Shadows is based upon….

Shadows was inspired by…
The style of dance used is…
The costume and lighting contribute by…
The mood of the piece is…
The movement that happens on stage reflects the storyline by...

REFLECT

An example of a good response will be handed out next week. Use the booklets you have at home as a guide.

SUBJECT	Art	YEAR	10

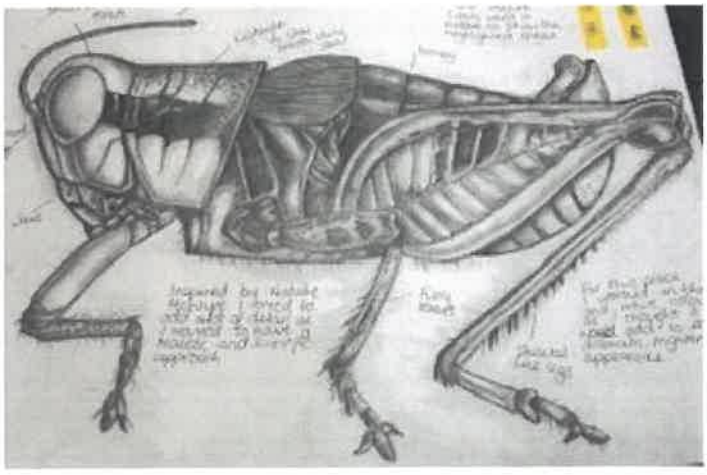
SUPPORT	Year 10 art Bling Bug Session 3 PowerPoint and video explanation on Google Classroom. Internet – Insect photograph images.

ACTIVATE	If possible watch the Session 3 video introduction saved in the Bling Bug folder on Google Classroom. If this is not possible, look at the Session 3 Bling Bug PowerPoint which is on the next page as well as Google Classroom. Look at the photographs of insects in the booklet or search the Internet to find one that you would like to draw. It must be a photograph, not a drawing.

EXPLAIN	You are to produce an enlarged A4 drawing of an insect of your choice. It must: 1/ Fill the page. 2/ Be shaded or coloured. 3/ Include detail An example is shown on the PowerPoint. Your drawing can be portrait or landscape. Your drawing can be of the whole insect or an enlarged section.

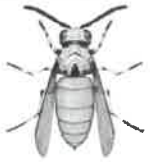
PRACTISE	Produce your drawing on the blank A4 page in the booklet. Either shade it or use colour to decorate it. If you want to do extra sheets of studies, do so on additional sheets of A4 paper. You are also welcome to do a bigger drawing on larger paper if you have any. You can write notes on your drawing if you wish.

REFLECT	Your work will be assessed on the quality and observed detail of the drawing. You should consider: Have I produced a detailed and accurate drawing? Have I used a strong contrast of light and dark to give the image a 3-Dimensional effect? In the next session, you will be producing a research sheet about 'Steampunk' influenced bugs.

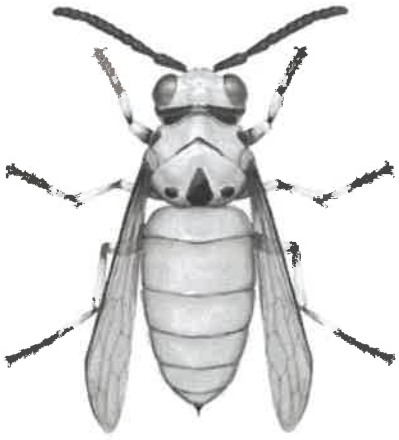


SESSION 3

Own drawing:
Either select one of these photographs or search for one that you like on the Internet.
It must be a detailed photograph and not a drawing.
Draw your own observed picture from the photograph.
You can either shade your drawing or add colour.



Mr T's example



Produce your drawing on the following page.

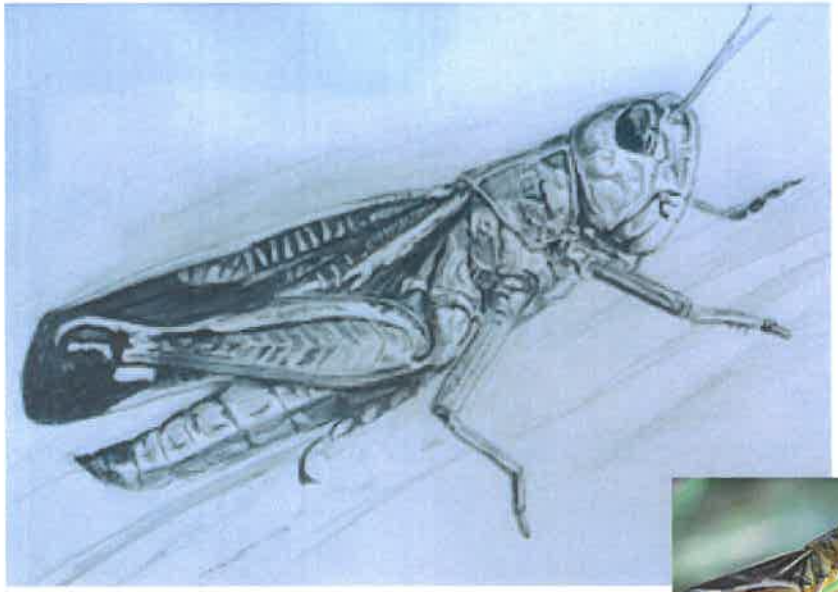
Year 10 art

Over the next few weeks we are going to be looking at insects and how we can

'Bling a Bug'

You will be completing the following:

1. → Artist Research → Natalie McIntyre full insects →
2. → Artist Research → Natalie McIntyre zoom insects →
3. → Own Drawing → Insect of choice →
4. → Artist Research → Steampunk insects →
5. → Own Ideas → 4 sketched 'Bling Bugs' →
6. → Final version → Final Image →



Mr T's example

Session 3

Own drawing:
Either select one of these photographs or search for one that you like on the Internet.
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Draw your own observed picture from the photograph.
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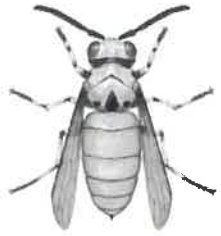


SUBJECT	Construction	YEAR	10

SUPPORT	Read the text in the following

ACTIVATE	

KN 1:1 Construction Year 11 Building

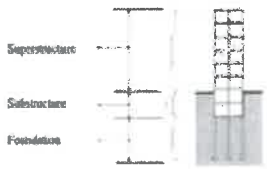
FCAT

An extra 5% or 10% rule is applied when ordering material this is in case there are any mistakes made and so there is enough material available.

Sub structure- is the part of building that is constructed below ground level like the foundations of a building. This helps the superstructure stay up
Super structure- is part of building that is above ground.

First fix- This usually means all the work needed to take a building from foundation to putting plaster on the internal walls, constructing walls, floors and ceilings, and inserting cables for electrical supply and pipes for water supply.

Major Building Parts



Second fix – This refers to everything that comes after the plastering has finished. This includes connecting up electrical fixtures like the sockets , adding sinks and baths fitting doors . Anything that needs closer detail and near a finish

Costing up a job includes adding labour, material machinery hire and electricity cost. If this is not added you will not make a profit.

OVERLAPPING OF JOBS.
Some building work can overlap and some can not. If you were to build a house from scratch you can not paint the walls if the walls have not been built. Another example is that you can not plaster a wall before the plaster board has been nailed. However some jobs can be done at the same time when the structure is built. For example, the drainage services and footings can be done at the same time.

Footings are an important part of foundation construction. They are typically made of concrete with rebar reinforcement that has been poured into an excavated trench.
The purpose of footings is to support the foundation and prevent settling.

EXPLAIN	Answer the following questions based on building a house.

PRACTISE	What does it mean by "First fix"? Give examples as well as explaining the term first fix. What does it mean by "second fix"? Give examples as well as explaining the term second fix? Why is it important to pay attention to detail on the second fix?

REFLECT	Why is it important that a job is checked after each stage ?

SUBJECT	Hospitality	YEAR	10

SUPPORT	Refer back to the PowerPoints uploaded on the drive. Information is on the slides and also use your recall memory.

ACTIVATE	Think about all the types of services you have encountered when you have been out to eat. This is a recap of what you have learnt in class.

EXPLAIN	Answer the following questions on styles of services. This is to check your learning from lessons. If you struggle you always have the booklets to refer back to. **Photograph your answer and post on google classroom Keep evidence of all work.** First one done for you

PRACTISE

What does the style of service depend on? (give 3 points)	Type of establishment, type of food being served, time available for the meal, number of customers, availability of serving staff.
Name 3 types of counter service	
Name 4 types of table service	
Name 2 types of personal service	

What is cafeteria service?	
What is fast food/take away service?	
What is buffet/carvery service?	
What is plated service?	
What is family service?	
What is silver service?	
What is gueridon service?	
What is airline food (transported meal) service?	

What is tray service?	
What is vending service?	

REFLECT	Think about all the different types of services and the features of them. Why are the different types of services available? Think about profit and labour and organisation.

Year 10 RE
Practices
Pilgrimage

LO: Understand the role and importance of Christian pilgrimage, including the contrasting examples of pilgrimages to Lourdes and Iona.

Study Tip: It may be helpful to consider the importance of pilgrimage both for individual Christians and for the Christian community.

Key Terms:
Pilgrimage: a journey by a believer to a holy site for religious reasons; pilgrimage is itself an act of worship and devotion.

What is a pilgrimage?
A pilgrimage is a journey made for religious reasons, alone or with other Christians, to a sacred place. The believer makes a physical journey but it is also a spiritual journey towards God. The pilgrimage gives many opportunities for prayer and worship, and is itself an act of worship as believers show devotion to God by choosing to go.

Pilgrims may visit the Holy Land, particularly Jerusalem, because it is where Jesus lives, died and was resurrected and where Christianity began. They may visit shrines connected with famous saints. Some prefer to go to remote places to pray and reflect on their lives.

- ❖ **The role of importance of pilgrimage**

Christians go on pilgrimage to:

- Grow closer to God and strengthen their faith
- Express sorrow for sin and be forgiven
- Reflect on their lives, particularly when facing a crisis or a big decision
- Pray for something special or than God for a blessing
- See a cure for an illness
- Help other pilgrims who are disabled or ill
- Experience a holy place
- Meet other
- s who share their faith

Sick or disabled pilgrims are accompanied by able-bodied helpers at Lourdes, a popular pilgrimage site for Catholics.

It is not compulsory for Christians to go on a pilgrimage but it can play an important role in their spiritual lives. Often they come back with a better understanding of their faith and renewed enthusiasm for living a Christian life. They may have received advice from priests or monks that has helped them see problems in a new light. They may also feel cleansed from sin.

❖ Lourdes

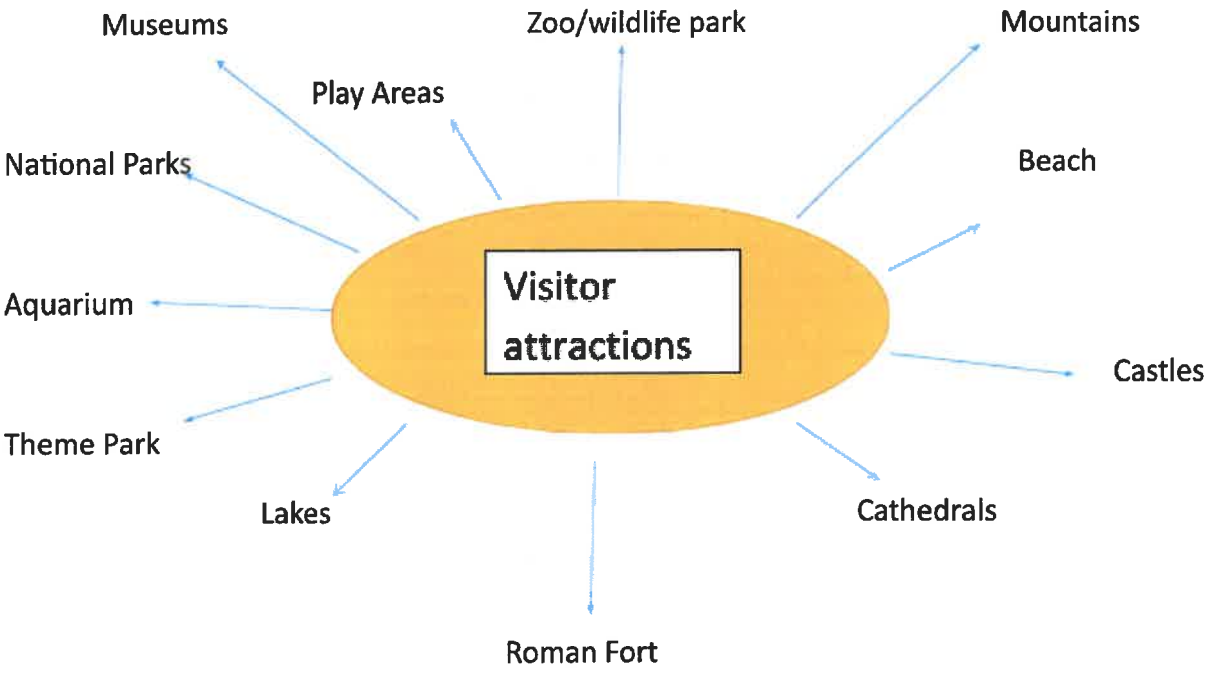
Lourdes in south-west France is a place of pilgrimage dedicated to Mary, the mother of Jesus. In 1858 a young girl named Bernadette had visions of Mary in a grotto (cave) near the river. Bernadette

Year 10 Travel and Tourism
UNIT 1– Visitor Attractions

A visitor attraction is somewhere that tourists will go/visit. It brings in revenue from both domestic and inbound tourists. If visitors have to pay to access the attraction, this is the Primary service.

Some visitor attractions are free entry, but still gain an income from Secondary products and Services:

- Hire facilities/rooms
- Donations
- Sales of merchandise/gift shop
- Sales in restaurants and cafes
- Grants and government funding



Category	Definition/Examples
Natural	An attraction that occurs naturally e.g. mountain, lake or beach
Purpose Built	A man-made visitor attraction e.g. theme park or zoo
Heritage	An historical attraction e.g. Cathedral or Castle

1. Put the visitor attractions given above in the columns below

NATURAL	PURPOSE-BUILT	HERITAGE

2. Explain the difference between Primary products and services and Secondary products and services (Remember PEE)

The Royal Yacht Britannia is a popular tourist attraction in Edinburgh. What other nautical attractions can you think of?

Discussion point

What attracts tourists to the top three heritage attractions? Should tourists be allowed to visit places of worship? Who benefits, the tourist or the attraction? Why should people pay to enter a church?

Did you know?

The popular TV drama *Downton Abbey* was filmed at Highclere Castle in Berkshire. Film locations are popular attractions for tourists.

Case study

The USA is Britain's third most important market for number of visitors and top for the amount spent by visitors.

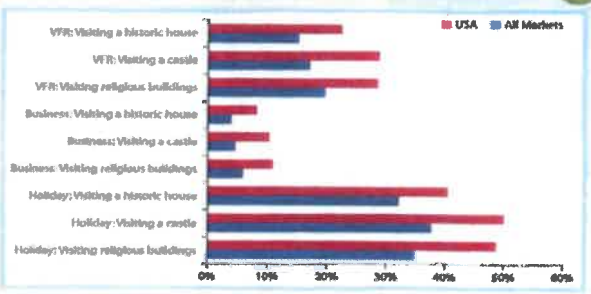
Visiting castles, churches and monuments is an activity enjoyed by at least 43 per cent of visitors from the USA. Many Americans are interested in their ancestry and want to visit places where their ancestors lived.

US inbound visitors to the UK

	2011	Share of total
Visits (000s)	2,846	9.2%
Nights (000s)	23,333	9.9%
Spend (£m)	2,362	13.1%

Top towns visited by US visitors (000s)

London	1815
Edinburgh	190
Manchester	70
Glasgow	63
Oxford	58



Answer the following from the graph and charts in this case study.

1 Are US holiday visitors more likely to visit a castle or a historic house?
2 Which category of US tourists is least likely to visit a castle?
3 Why is the number of nights much greater than the number of visitors?
4 Why is the percentage total of spend greater than the total of visits?
5 Why do you think London is the most visited place for US tourists?

(Source: USA: Market and Trade Profile 2012, VisitBritain)

Answer the Questions from the case study. Remember when there are tables or graphs, you should quote the information in your answers where you can.

1.

2.

3.

4.

5.

Big Picture - Know about the industries, and key organisations, within the travel and tourism sector, their roles and relationships

Today's Lesson

Last Lesson		Next Lesson
Accommodation	Visitor Attractions, arts and entertainment	Tourism development and promotion

This is your title

Learning Objectives

GOOD

State some different visitor attractions

BETTER

Categorise different types of attractions

BEST

Demonstrate understanding of the differences between primary and secondary products and services

Key Words

A visitor attraction is somewhere that tourists will go/visit. It brings in revenue from both domestic and inbound tourists. If visitors have to pay to access the attraction, this is the Primary service.

Some visitor attractions are free entry, but still gain an income from Secondary products and Services:

- Hire facilities/rooms
- Donations
- Sales of merchandise/gift shop
- Sales in restaurants and cafes
- Grants and government funding

UNIT 1 - The UK Travel and Tourism Sector (exam)

Examples of Visitor Attractions

Zoo/wildlife park

Museums

Stonehenge

Roman fort

Beaches

National Parks

Theme park

Theatres

Lakes

Hadrians wall

Castles

Mountains

Cathedrals

Aquarium

Play Areas

Categories

Category	Definition/Examples	Role
Natural	An attraction that occurs naturally e.g. mountain, lake or beach	Recreation, fun, education, leisure facilities
Purpose Built	A man-made visitor attraction e.g. theme park or zoo	Fun, education, entertainment, recreation
Heritage	An historical attraction e.g. Cathedral or Castle	Education, recreation

Arts or Entertainment Events

Special Events London 2012 Olympics or the Queens' Diamond Jubilee

Annual Events Wimbledon, Ascot or Chinese New Year

Festivals Music (Glastonbury, Leeds/Reading)
Culture (Edinburgh festival)

Learning Objectives

GOOD

State some different visitor attractions

BETTER

Categorise different types of attractions

BEST

Demonstrate understanding of the differences between primary and secondary products and services

1.1 SKELETAL SYSTEM
THE SPINE AND POSTURE

In this booklet you will find a number of activities these are split into the following sections:

1. **Activate** - Do Now/Starter. E.g, quizzes, mind map, brain dump.
2. **Practice** - Activities that are related to the topic e.g. Practice exam questions, dual code activities.
3. **Reflect** - Activities that reflect on what went well and anything that can be done next time to improve. E.g. Quizzes, self-assessment

LEARNING OUTCOMES

By the end of this piece of work you should be able to:

- Describe the structure of the vertebral column
- Relate the structure of the vertebral column to posture
- Describe and explain the postural changes

DO NOW: QUICK QUIZ
THE SPINE AND POSTURE

Answer the following quiz questions on the structure and functions of the skeletal system.

1. How many parts of the spine are there?

A. 3

B. 4

C. 5

D. 6

Answer _____

2. Which of the following is a region of the spine?

A. Locate

B. Locus

C. Lumbar

D. Lordosis

Answer _____

3. Which part of the spine is located at the bottom?

A. Cervical

B. Sacrum

C. Thoracic

D. Coccyx

4. Having poor posture could lead to...

A. Injury and discomfort

B. Improved muscle efficiency

C. Improved mood

D. Higher levels of oxygen

Answer _____

5. Which postural change affects the lumbar region?

A. Kyphosis

B. Lordosis

C. Lumbar

D. Scoliosis

Answer _____

6. What postural change is identified by the picture?

A. Lordosis

B. Kyphosis

C. Scoliosis

D. Posture

PRACTICE: WATCH

WATCH THE VIDEO

Use one of the following links to watch the instructional video on the structure of the spine and posture.

1. **Google classroom - Located in** Unit 1 - 1.1 Skeletal system spine and posture.

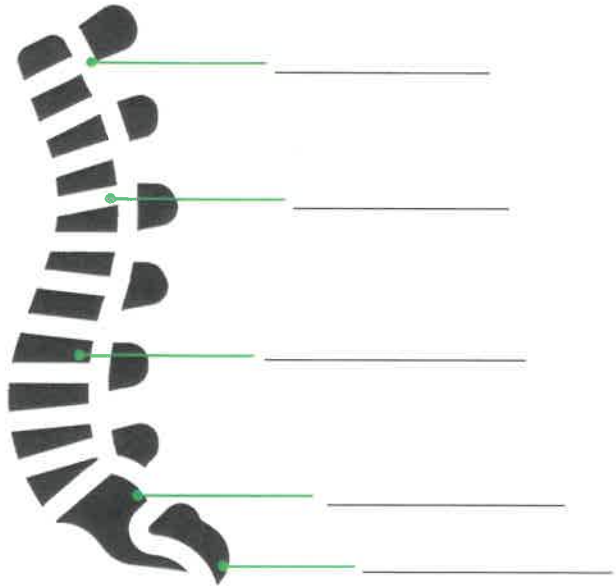
2. **PE Website -** Go to the Unity Academy website to access videos under the home learning tab.

This video will give you the knowledge to complete the next sections in the booklet.

PRACTICE: JOINTS

THE STRUCTURE OF THE SPINE

Label the part of the spine below:



PRACTICE: JOINTS

POSTURE AND POSTURAL CHANGES

Complete the following tasks:

What is the definition of posture?

_____

_____

GOOD POSTURE

Give **2** reasons why it is important to have good posture.

- _____.
- _____.

POOR POSTURE

Give 2 causes of why people may have poor posture.

- _____.
- _____.

POSTURAL CHANGES

Name, **describe** and **draw** the postural changes in the boxes below.

	Lordosis	
	Excessive inward curve of the lumbar region of the spine.	

DO NOW: QUICK QUIZ

THE SPINE AND POSTURE

Answer the following quiz questions on the structure and functions of the skeletal system.

1. How many parts of the spine are there?

A. 3

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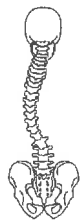
B. Lordosis

C. Lumbar

D. Scoliosis

Answer _____

6. What postural change is identified by the picture?



A. Lordosis

B. Kyphosis

C. Scoliosis

D. Posture

SUBJECT	Music	YEAR	10

SUPPORT	Powerpoint Youtube Links Google form

ACTIVATE	Recap starter: -Watch 'How to Listen to Classical Music: Tonality' on youtube. Make notes. -Watch the three examples of songs that have been changed from their original key. Notice the effect it can have on the listener.

EXPLAIN	1. Reading: AQA revision guide page on Rock music. 2. Watch OCR GCSE Music Virtual Textbook AOS5. Make notes. 3. Visit BBC Bitesize Rock Music.

PRACTISE	Google form exam practice.

REFLECT	What effect can tonality have on the listener? What are the key features of Rock anthems and pop ballads?

OUR OBJECTIVES/OUTCOMES

Objective

To develop my confidence of listening and identifying different types of tonality.

Key Words:
Major
Minor
Tonal
Modal

Recap of Tonality
(At home search for 'How to Listen to Classical Music: Tonality
Make notes.

Listening practice

Search on youtube:
'Super Mario Bros: minor key'

Search on youtube:
Jingle Bells (Dark Piano version).

Search on youtube: 'MAJOR TO MINOR: What does 'How Far I'll Go' sound like in a minor key?'

1. Reading: AQA revision guide page on Rock music.
1. Watch OCR GCSE Music Virtual Textbook AOS5. Make notes.

1. Visit BBC Bitesize Rock Music.
1. Google form exam practice.

Rock 'n' Roll

Rock 'n' roll is sometimes used to mean rock music in general — but for these two pages, it means the particular style of music that developed in the USA in the 1950s and '60s and spread across the world.

Rock 'n' Roll Came from the United States in the 1950s

1) Rock 'n' roll developed in the southern states of America in the late 1940s and early 1950s. African Americans moved to urban areas, which meant that black and white people were living closer together than ever before. Their styles of music mixed and evolved, creating new genres of music.
2) Rock 'n' roll was a mix of rhythm 'n' blues (which itself came from blues — see p.129-130) and country and western music, but also had influences of gospel, folk and jazz. Typical songs were a faster version of the 12-bar blues with the distinctive twang of country and western singing.
3) It might seem pretty tame today, but rock 'n' roll caused a massive uproar in the 1950s. Teenagers loved it, but their parents' generation hated it — they thought it was tasteless and immoral, and some even went as far as to say it was evil. Teenagers could afford to buy their own records though, so rock 'n' roll was extremely successful, and made superstars out of its biggest artists (e.g. Elvis Presley). It was used in films and TV programmes, which made it even more popular.
4) Rock 'n' roll continued to develop throughout the '50s and '60s, leading to rock music itself from the mid 1960s (see p.112-113).

Cleveland DJ Alan Freed made the term 'rock 'n' roll' popular.

Rock 'n' Roll Songs Were Lively With a Strong Beat

1) Rock 'n' roll songs were generally up-tempo, with a clear beat (most of them were in $\frac{4}{4}$). This made them ideal for dancing — dances in high school gyms were popular (like in *Grease*), and popular TV shows featured teenagers dancing to current hits.
2) The general line-up for a rock 'n' roll band was a lead singer, electric guitars, a bass guitar, a drum kit and sometimes a piano. In earlier bands, the piano played more of a lead role and some had a saxophone as well. A double bass was used before the bass guitar became more common.
3) The lyrics appealed to teenagers because they were about teenage issues, such as love, school, cars and summer holidays. Key lines were repeated throughout the song, which made them memorable.
4) The structure of the songs was fairly simple — most were either strophic (all verses had the same tune — see p.56) or had a verse-chorus structure (see p.58). Some had an AABA structure (four sections, three with the same melody and one that contrasts). A lot of hits featured at least one instrumental section, where a soloist (usually the lead guitarist) would improvise.
5) The verses and choruses themselves were often based on a 12-bar blues. There was a lot of call and response between the lead singer and the band, and most songs had a catchy hook.

Early Rock 'n' Roll Stars Included Bill Haley and Elvis Presley

- One of the first rock 'n' roll hits was 'Rock Around the Clock' by Bill Haley & His Comets.
- Elvis Presley was a huge star — his early hits included 'Hound Dog', 'Heartbreak Hotel' and 'Jailhouse Rock'. Elvis also acted and sang in films, which made him even more popular. He was adored by teenage girls — at his concerts, his gyrating hips caused a commotion.
- Bill Haley, Elvis Presley, Jerry Lee Lewis (who sang 'Great Balls of Fire') and Buddy Holly ('That'll Be The Day') were all rockabilly singers (a sub-genre of rock 'n' roll).
- Britain produced some rock 'n' roll stars as well, who were heavily influenced by American rock 'n' roll. The Beatles started out in rock 'n' roll (there's more about them on p.114-116).

You ain't nothin' but a revision dog...

In a nutshell, rock 'n' roll took the African American rhythm 'n' blues and made it accessible to young people of all backgrounds. Rock 'n' roll was more than just a type of music — it was an entire culture.

Rock Music

Rock music is developing all the time — but you need to know about rock music from the '60s and '70s.

Rock Music Developed in the 1960s

1) During the 1960s, rock 'n' roll evolved into more guitar-dominated music known simply as rock.
2) Like the 12-bar blues (see p.130), rock songs tend to be based around the chords I, IV and V (and sometimes VI). Songs are often in $\frac{4}{4}$ with a steady drum rhythm and follow a verse-chorus structure.
3) Rock music often uses power chords (chords made up of the tonic and fifth).
4) Many rock bands were formed in the 1960s — though most continued into the following decades. These were bands such as The Beatles (see p.114-116), The Rolling Stones (whose '60s hits included '(I Can't Get No) Satisfaction' and 'Get Off Of My Cloud'), The Kinks ('You Really Got Me'), The Who ('My Generation'), The Doors ('Light My Fire') and Led Zeppelin (their most famous song, 'Stairway to Heaven' — see below, was released in 1971, but the band was formed in the late '60s).

The Instrumentation Varies

1) A rock band was originally made up of a lead electric guitar, a rhythm electric guitar, a lead singer, a bass guitar and a drummer.
2) As rock developed, more instruments were added. In some songs, bands might use a string section (with violins and cellos), a brass section (trumpets and trombones) or a wind section (flutes, clarinets, saxophones and oboes). They also brought in pianos or keyboards and synthesizers.
3) Musicians used the effects on electric guitars to produce new sounds — like distortion, feedback (the noise you get when a guitar or microphone is too close to a speaker) and reverberation (echo).
4) Rock bands use lots of other techniques to get unusual sounds — Led Zeppelin often used a pounding beat turned up really loud as their main rhythm. They sometimes used violin bows on their guitar strings to get a sustained note.

Developments in technology have played an important part in rock music.

Rock Songs Are a Way of Expressing Yourself

1) Lots of rock bands write their own lyrics to songs (as well as the music). They use things like religious themes, political causes and personal experiences of love and some told stories.
2) Led Zeppelin, David Bowie and Bob Dylan all use the influences of folk music — they've written whole albums in a folky style (often described as folk rock).
3) Costumes were used to help the music along — David Bowie's jumpsuits and make-up (such as his famous lightning bolt make-up) really helped to set the scene for the characters that appeared in Bowie's songs (e.g. Major Tom and Ziggy Stardust).

Songs Became Longer and Albums Had Themes

- Queen's 'Bohemian Rhapsody' (released in 1975) lasts for a whopping 6 minutes. It doesn't have a chorus — it's made up of unrelated sections, including a slow ballad, a guitar solo, an operatic section and a heavy rock section. The song is through-composed (see p.56).
- 'Stairway to Heaven' (1971) by Led Zeppelin lasts for an even more whopping 8 minutes. It has different sections — the first is gentle, with a recorder and acoustic guitar accompaniment. The next section is a little faster, with electric guitars, and is followed by a long electric guitar solo. The final section is fast, hard rock (see next page).
- *Sgt. Pepper's Lonely Hearts Club Band* (1967) by The Beatles (see p.114) was one of the first rock concept albums — an album with a theme that links all the tracks.
- Pink Floyd's 1973 album *The Dark Side of the Moon* is another example of a concept album.

Rock Music

Don't worry, you don't need to know masses of detail about the different types of rock music below. Make sure you're happy with their common features though, such as the importance of the guitar.

There Are Lots of Types of Rock

Over time, rock has branched out into lots of different sub-genres. Here are some of the most popular:

HARD ROCK

- Loud and aggressive, dominated by a distorted electric guitar — solos and power chords were key features.
- Bands include Led Zeppelin and The Who.

HEAVY METAL

- Harder and more distorted than hard rock, with even longer guitar solos.
- Bands include Black Sabbath and Iron Maiden.

GLAM ROCK

- Theatrical and glitzy.
- Easier to listen to than hard rock, with a more rock 'n' roll feel and catchy hooks.
- Performers dressed up in spangly catsuits and wore lots of make-up.
- Artists include David Bowie and Kiss.

PUNK ROCK

- Harsh and angry music from the '70s — it's all about anarchy and rebellion. Lyrics were often shouted.
- Bands include The Sex Pistols and Blondie.

PROGRESSIVE (PROG) ROCK

- Songs were experimental and complicated, and albums often had a theme.
- Features long instrumentals, electronic effects and mythological or nonsensical lyrics.
- Bands include Yes and Pink Floyd.

PSYCHEDELIC ROCK

- From the '60s artistic movement psychedelia — it tried to recreate the surreal images and sounds experienced with hallucinogenic drugs like LSD.
- The music used lots of guitar effects and unusual electronic instruments and effects. It took inspiration from other cultures (including Eastern music). Lyrics were weird and dreamlike.
- Bands include The Beatles and The Doors.

Classic Rock Songs are Known as Anthems

1) Because of the powerful nature of the music and lyrics, a lot of rock songs can be described as anthems. They usually have memorable, singable (or shoutable) choruses. Here are a few examples:

   - 'Born to Be Wild' by Steppenwolf was released in 1968 — it was one of the first songs to be described as 'heavy metal' (see above), and even uses the words 'heavy metal thunder'. It has distorted electric guitars and the repeated line 'born to be wild' is simple and memorable.
   - 'We Will Rock You' by Queen was released in 1977. The only accompaniment to the vocals is the instantly-recognizable 'stamp stamp clap' rhythm that continues throughout the song (go on, you know you want to). The chorus is just one repeated line, almost like a chant. An electric guitar comes in right at the end and plays a solo.

2) Arena rock (or stadium rock) came about in the middle of the 1970s — developments in technology meant that rock bands could be amplified more. This allowed them to perform in larger spaces, such as arenas and stadiums (hence the name).

Rock anthems were perfect for arena performances.

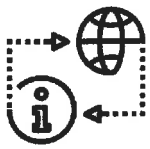
3) Technology also meant that special effects (such as pyrotechnics and light shows) could be used. Arena performances were about the effects and experience as much as the music.

Born to revise for GCSE Music...

'We Will Rock You' features in the 2001 film *A Knight's Tale*, where it's played at a jousting tournament. Perhaps not the most historically-accurate choice of song, but you can't beat a classic rock anthem.

SUBJECT	Design engineering	YEAR	10

SUPPORT



Unit R105

Manufacturing processes – Timbers and manufactured boards

http://www.technologystudent.com/cam/camex.htm ← Website

https://www.youtube.com/watch?v=QTi7dnwYTVw ← Video

Videos are available on both processes the links are available on google classroom however they are easy to find using google.

ACTIVATE

- Think about what products have been manufactured using woods, timbers and manufactured boards.
  - What is a hard wood?
  - What is a soft wood?
  - What is a manufactured board?

EXPLAIN

- Visit the different website focussing on CNC machining
- Watch the videos to give more perspective.
- Look at the diagrams that explain the processes.
- Make notes based on the questions asked.

PRACTISE

Research the following areas of manufacturing processes and answer the questions.

CNC Machining

- What does CNC stand for?
- How does **CNC machining** work?
- What different types of CNC machines are there?
- Why is CNC machining a successful process in high volume, mass produced products?
- What types of wood can be CNC machined?
- Give examples of several products that have been manufactured using CNC machining.

REFLECT

Answer sheets explaining the information needed will be provided in next weeks booklet.

UNIT R105 Engineering design – CNC machining

- What does CNC stand for?.....
- How does CNC machining work? .....
  .....
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- What different types of CNC machines are there?.....
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- Why is CNC machining a successful process in high volume, mass produced products?
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- What types of wood can be CNC machined?.....
  .....
  .....
- Give examples of several products that have been manufactured using CNC machining.
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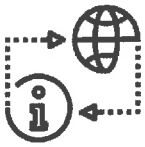
SUBJECT	Graphic Design- **This week continues on from last week. You have two weeks to research the different specialisms of graphic design.**	YEAR	10

SUPPORT 	Year 10 – Graphic design Unit 4 – section 1 (graphic design portfolio) Visit the website below and watch the video to give you an idea of what to do in this section https://collegegrad.com/careers/graphic-designers

ACTIVATE	Revistit your mind map from the previous week.This document should have identified the different areas of graphic design. What areas of graphic design interest you the most?.

EXPLAIN	There are many disciplines linked to graphic design, for example:- • Typographer • Logo designer • Illustrator • Packaging designer • Web designer • Motion graphic artisc

PRACTISE	**WHAT YOU HAVE TO DO THIS WEEK** Choose **three different areas** of graphic design and research the answers to the following questions for each area:- • Explain what the specialism is and what they do? E.g Web designer. • Explain how they present their work? What digital programs do they use? Give examples of images. • Research how much they earn? • Explain entry requirements. How to get into that specialism? What qualifications you need? • Focus on a famous/ successful designer from that specialism. Write a paragraph about what they do and their achievements. Show examples of their work.

REFLECT	An example of a successful piece of work based on one area of graphic design will be included in next weeks booklet.

SUBJECT	Child Development	YEAR	10

SUPPORT	Powerpoint You tube Links

ACTIVATE	Recap : How do children learn language What are the first words children say ? Where does language come from ? How do we learn it ? Take a look at the suggestions below 1. Hardwired in the brain "innate" approaches 2. Reward and punishment - behaviourist

3. Through Interactions

Task : At this stage , do you agree with ???
Write a short statement offering your views and opinions , this will help you track progress

EXPLAIN

There are 3 different Theories (thoughts and ideas) on how we learn language

- Behaviourist
- Innate
- Interactionist

Remember your Nature v Nurture Debate

PRACTISE

https://www.youtube.com/watch?v=jr_hK2Owq8o

Watch the video and write a brief account of the different approaches and how they view language development

http://www.youtube.com/watch?v=2i1z37nYMrM&NR=1&feature=endscreen

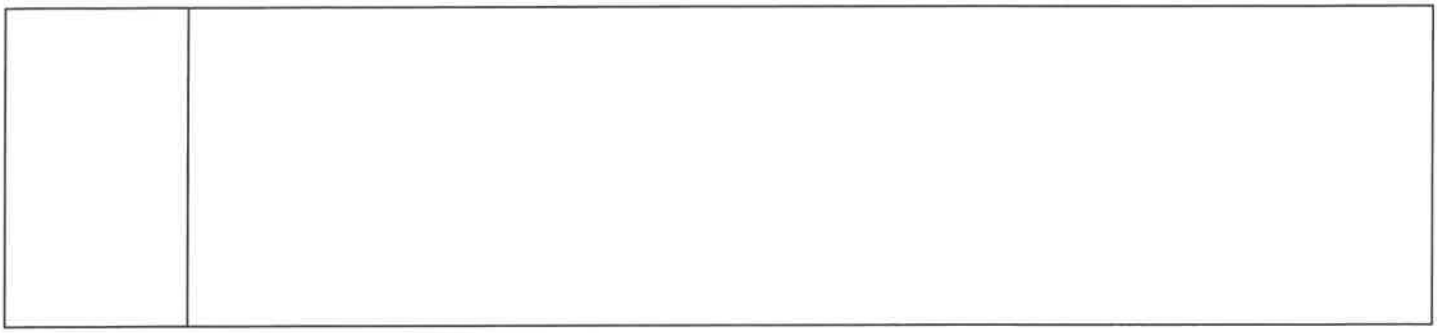
Robert Winston is a leading psychologist . Make brief bulleted notes on what the documentary discusses in view of language development

REFLECT

Have you changed your mind from your initial thoughts

Behaviourist
Innate
Interactionist

How do you think language is learnt now, have you changed your mind ? Write a short paragraph to explain your thinking .



Where does language come from?

1. Hardwired in the brain "innate" approaches

2. Reward and punishment – **behaviourists**

3. Through interactions – **"interactionist"** approaches

Which, at this stage, do you agree with?
Write a short statement offering your views and opinions in your books.
This will help to track your progress.

The three different approaches

- Behaviourist
- Innate
- Interactionist

- http://www.youtube.com/watch?v=WyZ_QMAizV0 – overview of approaches

Write a brief account of the different approaches and how they view language development.

- http://www.youtube.com/watch?v=2i1z37nYMrM&NR=1&feature=endscreen
- Robert Winston

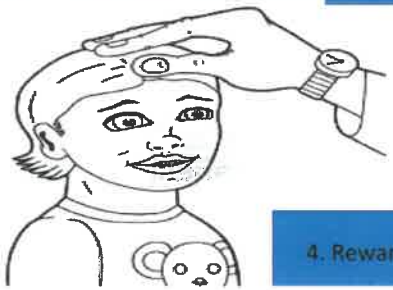
Make brief bulleted notes on what the documentary discusses in view of language development.

Remember a time when you have been:

1. Told off

2. Punished

3. Praised



4. Rewarded

I can identify the key principles of behaviourists, and can explain what core terms mean.

Remember a time when you have been:

3. Praised

4. Rewarded

Did it change your behaviour in any way?

This is behaviourism in a nutshell...

This is behaviourism in a nutshell...

Behaviour can be changed or influenced by punishment or reward.

Language can be taught to a child through praise or correction over time.

Behaviourism

- http://www.youtube.com/watch?v=hhqumfpxuzI

- As you watch, define the key terms:

Term	Define
Pavlov's dog	
Stimulus-response	
Imitation	
Classical/operant conditioning	
Positive / negative Reinforcement	

Reinforcing learning

- http://www.youtube.com/watch?v=FMJJpbRx_O8&feature=related

Now think about school

When and how is your language and behaviour reinforced ?
Can you think of examples .....

Think about what happens if you swear, shout or challenge someone .....