

**Year 7**

**Knowledge Organiser**

**Spring 2022 - 2**

# Self Quizzing Question Stems

Knowledge

Can you list 3...?  
Can you recall...?  
How did \_\_\_ happen?  
How is...?  
How would you describe/explain?  
What is...?  
When did...? (When did it happen?)  
Which one?  
Who were the main...?  
How would you show...?  
Why did...?

Application

How would you use...?  
What examples can you find...?  
How would you solve \_\_\_ using what you've learned?  
How would you organise \_\_\_ to show...?  
How would you show your understanding of...?  
What approach would you use to...?  
What other ways would you plan to...?  
What would happen if...?  
What faces would you select to show...?

Synthesis

Do you agree with the actions/outcomes?  
What is your opinion of...?  
How would you prove?...disprove...?  
Can you assess the value or importance...?  
Would it be better if...?  
Why did the characters choose to...?  
What would you recommend...?  
How would you rate...?  
How could you determine...?  
What choice would you have made...?  
Why was it better than...?

Comprehension

Explain what is happening?  
How would you classify...?  
Which is the best answer?  
Can you tell me in your own words?  
What can you say about...?  
How would you compare/contrast...?  
How is \_\_\_ alike? How is it different?  
What facts or ideas show...?  
What is the main idea of...?

Analysis

What are the parts or features of ...?  
How is \_\_\_ related to ...?  
Why do you think...?  
What is the theme...?  
What motive is there...?  
Can you list the parts...?  
What inference can you make...?  
What conclusions can you draw...?  
Can you identify the different parts of...?  
What evidence can you find...?  
Can you distinguish between...?

Evaluation

What changes would you make to solve...?  
How would you improve...?  
What would happen if...?  
Can you elaborate on the reason...?  
Can you give an alternative...?  
Can you invent...?  
How could you change or modify the plot?  
What way would you design...?  
Suppose you could \_\_\_ what would you do?  
Can you predict the outcome if...?  
Can you construct a model of...?

## **Knowledge, Notes and Quizzes**

## Can I write in paragraphs?

### The TIPTOP rule

You move onto a new paragraph when you change time, place, topic or person.

1. I always start an essay with an **introduction** which addresses the question.
2. I finish an essay with a **conclusion** to summarise the main points of my argument and to address the question again.
3. I use **connectives** in each paragraph to link my ideas and to put them in a logical order.

○ Furthermore	○ But	Meanwhile
○ Whereas	○ Since	Nonetheless
○ Nevertheless	○ Yet	However
○ Alternatively	○ Therefore	Although
○ Consequently	○ Besides	Moreover

## Have I used the correct grammar?

I am aware that I must use language that is appropriate to my reader.

- ❖ No slang *that lesson was bangin'*
- ❖ No informal language *I'm gonna do my homework now*

### ❖ Other things to consider:

- ✓ I am clear about the purpose of this piece of writing
- ✓ I know who my audience is
- ✓ I will use a suitable layout and text type



### I am proud of my work because...

- I have written clearly so that my reader can understand my writing easily.
- I have checked my **spelling** and corrected any errors.
- I have used full sentences with a subject and a verb.
- I have used correct **punctuation and grammar**.
- I have paragraphed my work using **TIPTOP**.
- My writing is suitable for the person I am writing for.

### Can I spell familiar words accurately?

#### Common contractions

We must use an apostrophe to replace any letter(s) we have left out.

11 o'clock	I'd	They're	Who'll
Aren't	I'll	Wasn't	Who's
Can't	I'm	We'd	Why'd
Couldn't	Isn't	We'll	Why'll
Didn't	It'd	We're	Why's
Doesn't	It'll	Weren't	Won't
Don't	It's	What'd	Wouldn't
Hadn't	Mightn't	What'll	You'd
Hasn't	Mustn't	What's	You'll
Haven't	Shan't	When'd	You're
He'd	She'd	When'll	
He'll	She'll	When's	
He's	She's	Where'd	
How'd	Shouldn't	Where'll	
How'll	They'd	Where's	
How's	They'll	Who'd	

#### Homophones

## Can I use different sentence types?

**Simple sentences:** contains a subject and a verb and can contain an object

- Sarah likes to read in the library.
- Tom enjoys reading at home.

**Compound sentences:** joins two simple sentences using the connectives: **for, and, nor, but, or, yet, so.**

- Sarah likes to read in the library but Tom prefers to read at home.

**Complex sentences:** A complex sentence contains a conjunction such as **because, since, after, although, or when**.

- Because Robert felt tired, he only studied for an hour.
- Although the rain had stopped, the pitch was still water-logged.
- Paul enjoys Music, however, he is more proficient in Art.

I have checked that I have not mixed up my homophones.

Affect/effect	Meat/meet
Bare/bear	One/won
Brake/break	Passed/past
Buy/by	Peace/piece
For/four	Practice (n)/practise (v)
Flour/flower	Read/red
Grate/great	Sea/see
Hair/hare	Sight/site
Hole/whole	Son/sun
Hour/our	To/too/two
Knight/night	Wait/weight
Weak/week	
Know/no	Wear/where

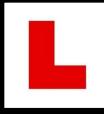
What traffic light am I?  
Is my punctuation accurate?

### Basics:

- Every sentence must start with a capital letter.
- Every sentence must finish with some form of punctuation: .?!
- Proper nouns need capital letters. These are **unique** people, places or things e.g. there are many cities so 'city' doesn't take a capital letter. However there is only one London, therefore it takes a capital letter.
- When writing titles of works such as books, films or plays:
  - Capitalise the first word
  - Capitalise any main/important words
  - Don't capitalise minor words such as 'and', 'of' or 'the' e.g. *The Sound of Music, The Wizard of Oz, Harry Potter and the Goblet of Fire*
- When writing speech:
  - ✓ Go to a new line when a different person speaks e.g. "Good morning" said the Headteacher.  
"It's the afternoon!" replied the student.
  - ✓ Each person's speech is marked with speech marks e.g. "Walk on the left" said Mr Mathews.

### Can I spell accurately?

- Sound out the word
- Think about how it looks
- Think about a similar word
- Is there a memory sentence for this word? (e.g. big ecalways use small exits)
- Find the word in a list -
  - Key words list
  - Frequently used words list
  - Your own word bank
- Look it up in a dictionary/spellchecker
- Ask a friend or teacher
- To learn it: look, cover, write, check
- Once you've solved it, add the correct spelling to your own word bank.



# literacy mat

## Can I use punctuation?

### The Apostrophe

I always aim to use apostrophes correctly.

There are two main reasons why we use apostrophes: for possession and to replace a letter or letters

**Note: Apostrophes are NEVER used to denote plurals**

Full stop	.	indicates that a sentence has finished
Comma	,	indicates a slight pause in a sentence, separates clauses in a complex sentence and items in a list
Question mark	?	goes at the end of a question
Exclamation mark	!	goes at the end of a dramatic sentence to show surprise or shock
Apostrophe	'	shows that letter(s) have been left out or indicates possession
Speech marks	""	indicate direct speech, the exact words spoken or being quoted
Colon	:	introduces a list, a statement or a quote in a sentence
Semicolon	:	separates two sentences that are related and of equal importance
Dash / hyphen	-	separates extra information from the main clause by holding words apart
Brackets	( )	can be used like dashes, they separate off extra information from the main clause
Ellipsis	...	to show a passage of time, to hook the reader in and create suspense

### Apostrophe for Possession

(To show that something belongs to another)

If a single thing/person owns anything, add an apostrophe + 's'.

- The dog's bone
- The boy's homework
- Jones's bakery
- Yesterday's lesson

However, if it is plural (more than one), an apostrophe comes after the 's'.

- The dogs' bones
- The boys' homework
- Joneses' bakeries (lots of Jones families)
- Many websites' content is educational

### There/ their/ they're

**Note:** special care must be taken over the use of **there**, **their** and **they're** as they sound the same but are used quite differently:

- ❖ **There** shows position *Your seat is over there*
- ❖ **Their** shows that 'they' own something *Their blazers are navy blue*
- ❖ **They're** is short for **they are** as in *They're revising every day*

### ITS

**Note:** **its**, which shows that something owns something (like our, his etc), does not take an apostrophe: *the dog ate its bone and we ate our dinner*

### Your/ you're

**Note:** special care must be taken over the use of **your** and **you're** as they sound the same but are used quite differently:

- ❖ **Your** is possessive as in *this is your pen*
- ❖ **You're** is short for **you are** as in *you're coming over to my house*

Week	AO	Key Learning – Portrait and drawing	Disciplinary literacy in Art and Design	Definition	Resources
1	3	<b>Introduction to Weeping Woman by Picasso</b> <b>Drawing portrait features – the eye</b> Be reminded of the stages of drawing an eye Use HPS – hold, pressure, speed Use other media and continue to build confidence	<b>Portrait</b>	a painting, drawing, photograph, or engraving of a person, especially one depicting only the face or head and shoulders.	 <a href="#">10 Iconic Cubist Portraits – Artst</a> <a href="#">The Weeping Woman – Wikipedia</a>
			<b>Mixed media</b>	A variety of media (paint, pen, pencil collage) used in a work of art.	
2	3	<b>Drawing portrait features – the nose, ear and mouth</b> Students will use oil pastels and carbon paper to create a monoprint from a drawing or photograph as well as use drawing and coloured pencils, fineliner and biro to draw more features.	<b>Collage</b>	from the French term papiers collés (or découpage), used to describe techniques of pasting paper cut-outs onto various surfaces	<a href="#">10 Iconic Cubist Portraits – Artst</a> <a href="#">The Weeping Woman – Wikipedia</a>
			<b>monoprint</b>	The image can only be created once when printing	
3	4	<u><b>Formal assessment</b></u> To use previous work to start to create a 3D outcome including drawn elements, collage (Hoch) and mark-making (Basquiat).	<b>Cubism</b>	An Art Movement from the 1920s objects are analysed, broken up and reassembled in an abstracted form. Instead of depicting objects from a single viewpoint, the artist depicts the subject from a multitude of viewpoints to represent the subject in a greater context	 <b>SCAN ME</b>
4 & 5	2, 4	<u><b>Continue with 3D outcome</b></u>	<b>Abstract outcome</b>	relating to art that does not attempt to represent reality, but achieves its effect using shapes, colours, and textures	
6		DIRT – Dedicated Improvement and Refinement Time.	<b>Evaluate</b>	Make judgements of the work created	

Part	Key Learning
1	<ul style="list-style-type: none"><li>• A <b>protocol</b> is an established set of rules that determine how data is transmitted between different devices in the same network. Essentially, it allows connected devices to communicate with each other, regardless of any differences in their internal processes, structure or design.</li><li>• Computer <b>hardware</b> includes the physical parts of a computer, such as the case, central processing unit, monitor, mouse, keyboard, computer data storage, graphics card, sound card, speakers and motherboard. By contrast, software is the set of instructions that can be stored and run by hardware.</li><li>• <b>Bandwidth</b> is the maximum rate of data transfer across a given path.</li></ul>
2	<ul style="list-style-type: none"><li>• The <b>Internet</b> is a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols.</li><li>• A <b>browser</b> is a computer program with a graphical user interface for displaying and navigating between web pages</li><li>• The <b>World Wide Web</b> is an information system on the internet which allows documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another.</li><li>• <b>Connectivity</b> is the capacity for connected devices to collect and share information about me with or without my knowledge.</li></ul>

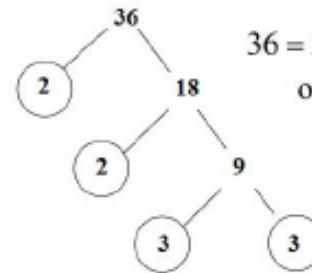
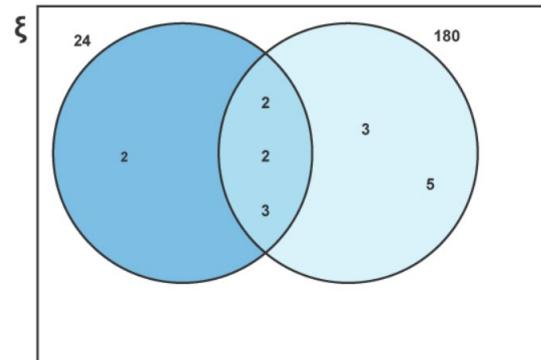
**Subject: Drama****Term: Spring 2    Animal Farm****Year Group: 7**

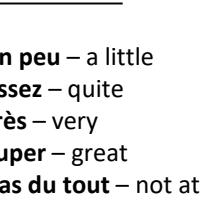
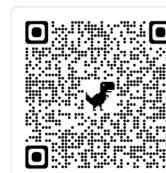
Part	Key Learning	Disciplinary Literacy
1	To begin to explore animal farm and explore the emotional connotations associated in this play <ul style="list-style-type: none"><li>• Songs in film</li><li>• Key plot points</li><li>• Emotional opinion on play</li></ul>	Physical Interpretation of Character Vocal Interpretation of Character Artistic Intention Movement techniques Gesture Ensemble performance Mime Improvisation Gesture Facial expressions
2	To begin to explore the characters of animal farm and decide within my groups what scenes we are going to perform and what characters we are playing <ul style="list-style-type: none"><li>• Different characters in animal farm</li><li>• Storyboard of the story</li></ul>	Body Language Posture Facial expressions Gait (walk) Posture Body Language Gesture Volume/Projection Pitch Pace Pace Accent Hot seating
3	To explore the rules set down in animal farm with the character I selected last week and make relations to me as a student <ul style="list-style-type: none"><li>• Looking at the commandments imposed on the characters</li><li>• Getting students to connect with play</li></ul> <p>To understand how language can create a character in Animal Farm.</p> <p>Physical Interpretation of Character: Facial expressions, Gait (walk), Posture, Body Language, Gesture Vocal Interpretation of Character: Volume/Projection, Pitch, Pace, Accent Artistic Intention of your ability to physical interpret your character and portray this physically changing your body language, facial expression and voice.</p>	Body Language Posture Facial expressions Gait (walk) Posture Body Language Gesture Volume/Projection Pitch Pace Pace Accent Hot seating
4	To create a script from the selected scenes. <ul style="list-style-type: none"><li>• Script creation from scenes</li><li>• Rehearsal of scenes</li></ul>	Resources <a href="#">Animal Farm (1999) - All songs - YouTube</a>  <a href="#">Animal Farm: Plot   Lit P.D.   BBC Teach - YouTube</a>
5	To rehearse and polish my scenes ready to perform next week, looking at physically and vocally. Rehearsal of chosen scenes <b>Tips for learning lines</b> Read the lines aloud, Little and often, Record yourself saying the lines then listen back, Walk around a while you are practicing your lines (this will also help you to develop character), Learn the line which is said before yours so you can use it as a prompt, Listen to what the other characters are saying so the lines make more sense	<a href="#">Animal Farm film 1999 - YouTube</a>  <a href="#">George Orwell's Animal Farm Animation (Full Movie) - YouTube</a>
6	To take part in a group perform to my class from the play animal farm. <ul style="list-style-type: none"><li>• Performance</li></ul> <p>Gesture – the actions used by an actor to show what the character is feeling or what they are doing. Facial expressions – changes made to the face to show how the Character is feeling. Body Language – the emotion shown by an actors movement or position of their body. Posture – the position that a character is sitting or standing in. It helps to show their emotions.</p>	

Part	Key Learning	Vocabulary	Resources
1	<ul style="list-style-type: none"> <li>Animal Farm Chapter 6: The harvest is not as good as last year, however, the animals continue to build the windmill. Napoleon states that they will begin to trade with other farmers for materials – having to give up their own wheat, corn and the chickens' eggs. Squealer convinces them that this is ok. The pigs move into the farmhouse – Squealer convinces them that this is also ok. There is a storm and the windmill is destroyed. Napoleon blames Snowball and creates a reward for anyone who captures him. They will rebuild the windmill.</li> </ul>	<p>Malignity – great hatred      Indignation – a feeling or expression of anger because of an unjust or mean action      Intermediary – the person who acts as the go-between</p>	<a href="#">Here</a>
2	<ul style="list-style-type: none"> <li>Animal Farm Chapter 7: Life is hard on the farm and food rations are cut – Napoleon fools Mr Whymper into believing the animals have plenty of food. Napoleon makes a deal to sell the hens eggs to which they protest. Eventually, their protest ends after some hens have died and the rest are starving. Squealer tells a new version of the Battle of Cowshed in which Napoleon was the hero and Snowball was working for Mr Jones. Boxer cannot believe it and argues against it until it is claimed that Napoleon states it to be so. Later, Napoleon orders his dogs to kill multiple ‘guilty’ animals who all confess to their crimes in front of each other. The animals are left shaken and disheartened.</li> </ul>	<p>Capitulate – surrender      Countenance – facial expression      Incited - caused /started      Retribution – punishment, payback</p>	<a href="#">Here</a>
3	<ul style="list-style-type: none"> <li>Animal Farm Chapter 8: The animals are hungry and tired but Squealer reassures them that production rates have increased. The windmill is completed. Napoleon announces that he is going to sell the timber to Pilkington. He then changes to Frederick but asserts that this was always his plan. Frederick pays him in fake notes and Napoleon announces that Frederick needs to die. Frederick and his men invade the Farm with guns, the animals fight them off but only after they have blown up the windmill. The pigs drink whisky and Squealer is found covered in paint as he has fallen off a ladder at the barn.</li> </ul>	<p>Censure – blame, official disapproval, criticism      Conciliatory – peace-making      Contrive – to plan      Unscathed - unharmed</p>	<a href="#">Here</a>
4	<ul style="list-style-type: none"> <li>Animal Farm Chapter 9Boxer is getting old and is due for retirement soon. Rations are cut, except for the pigs and dogs. The pigs are given more privileges – there are also more songs, speeches and processions. Boxer collapses and Squealer tells then animals that Napoleon has arranged for him to be taken to hospital. A van arrives and takes Boxer away. Benjamin reads the writing on the side of the van and informs the animals that the van is taking him to be killed. Boxer cannot escape. Squealer announces Boxer’s death and explains all rumours to be untrue. Somehow the pigs have gained more money to buy whiskey.</li> </ul>	<p>Complicity – partnership in wrongdoing      Demeanor – a way a person looks or acts      Spontaneous – without planning, spur of the moment</p>	<a href="#">Here</a>
5	<ul style="list-style-type: none"> <li>Twice named Prime Minister of the United Kingdom, Winston Churchill forged alliances with the United States and Soviet Union to defeat Nazi Germany in World War II. He was a British politician, military officer and writer who served as the Prime Minister of Great Britain from 1940 to 1945 and from 1951 to 1955.</li> </ul>	<b>Odious: horrible, awful</b>	<a href="#">Here</a>
6	<ul style="list-style-type: none"> <li>Animal Farm Chapter 10: Years have passed – few animals remember the rebellion. The windmill is completed but doesn’t produce any luxuries that Snowball stated. Only the pigs and dogs benefit from the farm. The animals are shocked to see the pigs walking on two legs. They carry whips. The sheep cry ‘four legs good, two legs better’. The commandments are gone: they are replaced with ‘All animals are equal but some animals are more equal than others’. Farmers eat and drink with the pigs. Napoleon says there will be no flag, ‘comrades’, or marching past Old Major’s skull and that the farm is renamed ‘The Manor Farm’. Other animals cannot tell who are the pigs and who are the humans.</li> </ul>	<p>Inebriate – to make drunk      Morose – sad, gloomy      Subsist – to stay alive on the barest means, barely stay alive</p>	<a href="#">Here</a>

Part	Disciplinary/Literacy	Key Learning
1 and 4	<p><b>Site</b> – The land a settlement is built on.</p> <p><b>Situation</b> – The area around the settlement and what it provides.</p> <p><b>Resources</b> – The items and materials that people in a settlement need e.g. wood for building, water, food.</p> 	<p><b>Site:</b> Settlements are located for a reason, normally because there are positive factors that make life easier for inhabitants. Early settlements in the UK were developed to be self-sufficient. Water is always needed so many settlements are located at a <b>wet point site</b>. Some were located on a hill as this was easy to <b>defend</b> and would not flood. Some are in areas where there is lots of <b>trade</b>, for example around a bridge over a river (<b>bridging point</b>). Some were located near the coast as they are good for <b>trade</b>. Some are located where there is good farmland and woodland. <b>Plymouth</b> grew from the area around the Barbican. It started here as a fishing port (resources) where there was flat land and a fresh water supply (river Plym). It is also in a sheltered bay, <b>Plymouth sound</b>, so it is safer for boats, and it was easy to defend.</p> <p><b>Situation:</b> The area around a settlement is also important when deciding where to build a settlement. <b>Fertile soil</b> is important for farming so that there is plenty of food (many farms around Plymouth). It is also important that there are building materials so being close to woodlands (Cann Woods area of Plymouth) and areas where there is stone that can be quarried (Dartmoor).</p>
2 and 5	<p><b>Function</b> – is a job or process that happens in a settlement (a reason for it being there).</p> <p><b>Market town</b> – A function of a town where it is used for the buying and selling of resources.</p> <p><b>Land use</b> – The different use of land and how this is organised and distributed in settlements.</p> 	<p>The <b>function</b> of a settlement can change over time. The <b>primary</b> function often results in how the land is used. Functions of settlements include; industrial (making products e.g. Sheffield), commercial (trading, Bristol port), residential (Sherford), market towns (Tavistock). Plymouth has been a fishing port, commercial port and naval base and much of its original land-use is linked to this. The function of Plymouth has changed. It is now known for its University (Education function), Marine manufacturing (Industry) and as a residential area.</p> <p><b>Land use:</b> The land in settlements is used in different ways. In the centre of many cities the land is used for <b>offices</b> and <b>retail</b> (shopping) – the <b>Central Business District</b> (CBD). As many businesses want to be located here the cost of the land is high which means that only big companies can locate in the centre. Just outside of the CBD is the <b>Inner city</b>, here there is often old industrial land and small terraced <b>housing</b> (Mutley Plain). The land here is often cheaper. The land price rises in the <b>Inner suburbs</b> where there is a lot of housing (Eggbuckland). In the <b>Outer suburbs</b> land is more expensive. On the edge of cities there is a <b>commercial</b> use (Tesco at Woolwell and small industrial estates e.g. Estover).</p> <p><b>Problems in cities:</b> In some areas in cities the land has become <b>derelict (run down)</b> as the industry has closed down leaving area that are disused and neglected (Milbay). Also there are areas of <b>deprivation</b> or poverty in some areas of cities. These are both problems that settlements have to overcome.</p>
3 and 6	<p><b>Regeneration</b> - The improvement of old parts of the built-up area by either installing modern facilities in old buildings or building new buildings.</p> <p><b>Urban sprawl</b> - The unplanned growth of urban areas into the surrounding countryside.</p> <p><b>Green belt</b> – An area of Greenland (fields and woods) where building is restricted.</p>	<p>Many parts of the <b>inner-city</b> areas are old and disused, these need to be made useful again. This often means <b>demolishing</b> (knocking down) the old and building new (Brettonside) <b>OR</b> re-using old buildings for a different use (Royal William yard). These places are called <b>brownfield sites</b> as they have already been built on. However, a disadvantage is that they are often quite small. On the edge of cities there is plenty of cheap land with space for development, this is often farmland. These are known as <b>greenfield sites</b>. Building on these areas means that urban areas grow in size and often ruins the green space around settlements leading to the loss of habitats. Supermarkets, housing developers and retail parks often want to build on this land. However, conservationists and local residents are often against these plans as they create more traffic, reduce wildlife and cause environmental problems.</p> <p><b>The future:</b> Already settlements are having to change. Many are trying to reduce how many cars are in CBD areas, London has the congestion charge. Some are trying to develop more green space in cities and plant more trees. Others are looking at <b>integrated transport systems</b> including better cycle and walking networks combined with improved public transport like buses and trams.</p>

Part	Disciplinary/Literacy	Key Learning:
1 and 4	Indulgences – Purchased to forgive a person's sins Reformation – The split in the Christian church between Catholics and Protestants. Dissolution – The destruction or dissolving of an organization. Dynasty – A group of rulers from the same family.	<b>The Tudors and the Church</b> Throughout the middle ages there had been many times the Church had been criticized. The selling of <b>indulgences</b> to forgive people's sins could be used to give people bribes. The laws against priests marrying were often ignored. In 1517 a German priest called Martin Luther listed 95 points he thought were wrong with the Catholic Church and this started a protest. Followers of Luther were known as Protestants and the division in the Christian faith was called the <b>Reformation</b> . Protestants believed that priests were just ordinary people, the bible could be translated into languages other than Latin, church's should be plain and simple and that priests could marry. In England this caused an extra problem. Initially Henry VIII had been a devout Catholic, even named "Defender of the Faith" by the Pope. Henry VIII had got married at the age of 17 to the wife of his dead older brother. Whilst this had kept the alliance to the Spanish kingdom she had come from it failed to give Henry VIII the son he desired to maintain the Tudor dynasty. However, when he fell in love with Anne Boleyn and was denied a divorce from his then wife Katherine of Aragon by the Pope in Rome, Protestants saw their chance and Henry VIII created a new Church of England with the monarch at the head. In doing this Henry was able to grant himself the divorce he required to marry Anne Boleyn and was also able to take control over large amounts of Church owned property in the kingdom. This became known as the <b>dissolution</b> of the monasteries and the ruins of the old medieval monastery system can be seen throughout the country.
2 and 5	Hard-line – tough or strict Deposed – removed from power. Convert – Changing from one set of beliefs to another. Compromise – Where both sides give in partially to the others demands.	<b>What Changes Happened to the Church</b> Following Henry VIII's death in 1547 he was succeeded by his young son Edward VI. The new king was just 9 years old when crowned and relied heavily on his uncle for advice. Under Edward VI's rule England underwent a transformation to a more <b>hard-line</b> Protestant country. Churches were forced to abandon traditions and remove elements that were linked to the Catholic faith. However when Edward VI died in 1553 before he could marry and leave an heir all this seemed in danger as the next in line would be Henry VIII's eldest daughter Mary who was a devout Catholic. To try and preserve the Protestant revolution, Lady Jane Grey was crowned Queen but she had little support and was easily <b>deposed</b> by Mary I who had her executed after reigning for only 9 days. Mary I's reign was also short lived but is best remembered for her attempts to overturn the changes of her brother Edward VI. She developed the nickname "Bloody Mary" because of the punishment of those Protestant's who would not <b>convert</b> to Catholicism and were burned at the stake. This included priests, women and even young children. However execution was not an uncommon punishment in this time and compared to the number's executed by her father this nickname could be argued to be unfair. When Mary I died the throne passed to the daughter of Anne Boleyn, Elizabeth who would have to plot a dangerous path of <b>compromise</b> which kept her Protestant advisors pleased but would tolerate Catholics as long as they were loyal to her. Elizabeth lived much of her life in fear of assassination as she failed to find a suitable marriage and produce an heir of her own.
Part 3 and 6	<b>Armada – A invasion fleet.</b> <b>Flanders – A area of modern day Belgium and the Netherlands.</b> <b>Engage – Start</b>	<b>The Spanish Armada</b> The Spanish had many reasons for wanting to invade in 1588. As the most powerful Catholic country in Europe they had a strong desire to remove England's Protestant Queen Elizabeth I from the throne. She had refused to marry Phillip II of Spain (partly because he was an old man but also because he had been married to her sister Mary I). But England had annoyed Spain by supporting Protestant Dutch rebels in Flanders and English pirates had plundered Spanish ships on their way across the Atlantic. In 1588 a huge fleet of 130 ships set sail in July and was known as the Spanish Armada. Led by the King's cousin, Army General Duke Medina Sidonia was rumoured to suffer from sea sickness and had little experience of naval warfare. The Spanish plan was to join up with a Spanish army in Flanders and transport them across the Channel to England. The Armada sailed in a crescent moon formation. The ships themselves were known as castles and defended by soldiers rather than experienced naval fighters. As this was a religious conflict there were more priests on board than experienced gunnery crew. The English on the other hand were expertly led by Lord Admiral Howard and famously his second in command Sir Francis Drake. When they set sail from Plymouth on sighting the Armada the English found they could control the battle as they had the wind behind them. They engaged the Spanish off the coast of Holland at Gravelines and with the use of fire ships, forced the Spanish to flee north around the Scottish coast where they were destroyed by violent storms. The English proved determined, experienced and disciplined opponents and the victory heralded the prospect of a golden age for English seamanship.

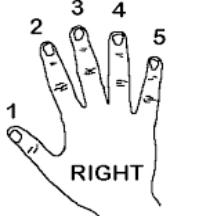
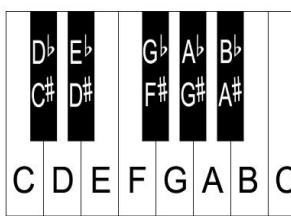
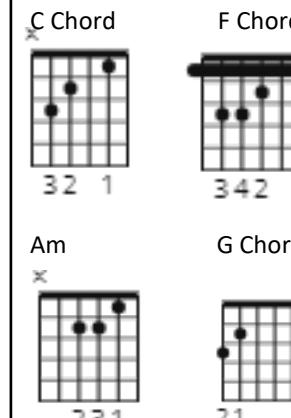
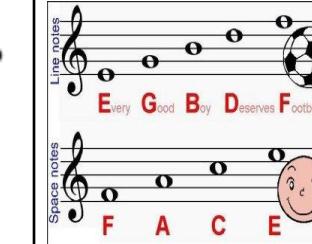
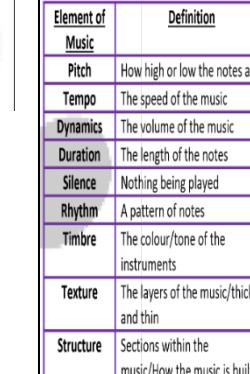
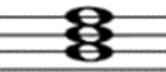
Topic/Skill	Definition/Tips	Example
<b>Negative Number</b>	A number that is <b>less than zero</b> . Can be decimals.	-8, -2.5
<b>Multiple</b>	The result of multiplying a number by an integer. The times tables of a number.	The first five multiples of 7 are: 7, 14, 21, 28, 35
<b>Factor</b>	A number that divides exactly into another number without a remainder. It is useful to write factors in pairs	The factors of 18 are: 1, 2, 3, 6, 9, 18
<b>Lowest Common Multiple (LCM)</b>	The smallest number that is in the times tables of each of the numbers given.	The LCM of 3, 4 and 5 is 60 because it is the smallest number in the 3, 4 and 5 times tables.
<b>Highest Common Factor (HCF)</b>	The biggest number that divides exactly into two or more numbers.	The HCF of 6 and 9 is 3 because it is the biggest number that divides into 6 and 9 exactly.
<b>Prime Number</b>	A number with exactly two factors, itself and one.	The first ten prime numbers are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29
<b>Product of Prime Factors</b>	Finding out which prime numbers multiply together to make the original number.  Use a prime factor tree.  Also known as 'prime factorisation'.	 $36 = 2 \times 2 \times 3 \times 3$ $\text{or } 2^2 \times 3^2$
<b>Venn Diagram</b>	A Venn Diagram shows the relationship between a group of different things and how they overlap. Can be used to find the Lowest Common Multiple and Highest Common Factors of a number.  e.g. Using the Venn Diagram for 24 and 180 on the right  LCM = Union multiplied together so $2 \times 2 \times 2 \times 3 \times 3 \times 5 = 360$  HCF = Intersection = $2 \times 2 \times 3 = 12$	

Part	Key Learning: Décrire un tableau/d'animal								Resources
1	Verb Start	Picture Title	Position	Verb	Shapes	Opinions	Adjectives		
2	Je vais décrire I am going to describe...	L'Escargot. Les Codomas. La Perucca et la Sirène. Nature morte au citron. Souvenir d'Océanie.	Dans Le tableau – In the picture  au centre - in the centre en haut – at the top en bas – at the bottom à gauche to the left à droite – to the right	il y a there is/are il n'y a pas de there isn't/aren't je vois I see il a it has c'est it is beaucoup de a lot of des some	cercle triangle carré rectangle ovale point zigzag coeur	rouge jaune vert bleu violet	Je pense que c'est I think it is Je l'aime I like it Je ne l'aime pas I do not like it	affreux – awful bien – good ennuyeux – boring intéressant – interesting joli – pretty magnifique – wonderful bizarre - strange	
3	J'ai choisi I have chosen...			un a (m)  une a (f)	ligne étoile spirale un ligne ondulée feuille	The Reason  parce que c'est because it is parce qu'il y a because there is/are	Conjunctives  et – and aussi – also mais – but cependant however puisque – since		
4	Shape (F)						Intensifiers:		
	une main	a hand					un peu – a little assez – quite très – very super – great pas du tout – not at all	The Ten Keys: 	
5	une algue	seaweed							
	une guitare	a guitar							
	une personne	a person							
	une femme	a woman							
6	Shape (M)								
	un avocat	an avocado							
	un fond	a background							
	un abre	a tree							
	un citron	a lemon							
	un homme	a man							

## Subject: Music

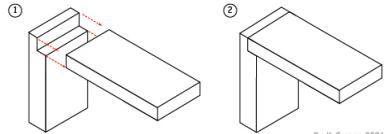
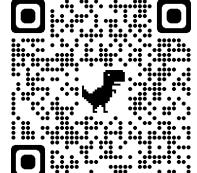
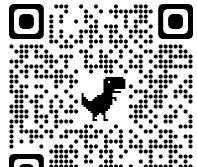
## Term: Spring 2

## Year Group: 7

Week Beginning	28/2/22 3/3/22	7/3/22	14/3/22 21/3/22	28/2/22																																
Subject Topic	To play Every step you take on either a Keyboard, Bass Guitar or Acoustic Guitar  <table border="1"> <thead> <tr> <th>Name of note</th> <th>Appearance</th> <th>Rest</th> <th>Value (Beats)</th> </tr> </thead> <tbody> <tr> <td>Semibreve</td> <td>○</td> <td>-</td> <td>4</td> </tr> <tr> <td>Dotted Minim</td> <td>○.</td> <td>—</td> <td>3</td> </tr> <tr> <td>Minim</td> <td>○</td> <td>-</td> <td>2</td> </tr> <tr> <td>Dotted Crotchet</td> <td>○.</td> <td>—</td> <td>1 ½</td> </tr> <tr> <td>Crotchet</td> <td>○</td> <td>—</td> <td>1</td> </tr> <tr> <td>Quaver</td> <td>○</td> <td>—</td> <td>½</td> </tr> <tr> <td>Semiquaver</td> <td>○</td> <td>—</td> <td>¼</td> </tr> </tbody> </table>  	Name of note	Appearance	Rest	Value (Beats)	Semibreve	○	-	4	Dotted Minim	○.	—	3	Minim	○	-	2	Dotted Crotchet	○.	—	1 ½	Crotchet	○	—	1	Quaver	○	—	½	Semiquaver	○	—	¼	To continue to learn to play Every step you take on either a Keyboard, Bass Guitar or Acoustic Guitar  <b>Guitar Tab</b> 	To continue to develop your instrumental and performance skills in order to perform your part within a class ensemble. You need to prepare for your performance assessment next lesson.	Assessment
Name of note	Appearance	Rest	Value (Beats)																																	
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Key Learning	 <b>Instrumentation</b> The combination of instruments that are used  	 <p><b>Element of Music</b></p> <ul style="list-style-type: none"> <li>Pitch</li> <li>Tempo</li> <li>Dynamics</li> <li>Duration</li> <li>Silence</li> <li>Rhythm</li> <li>Timbre</li> <li>Texture</li> <li>Structure</li> </ul> <p><b>Definition</b></p> <ul style="list-style-type: none"> <li>How high or low the notes are</li> <li>The speed of the music</li> <li>The volume of the music</li> <li>The length of the notes</li> <li>Nothing being played</li> <li>A pattern of notes</li> <li>The colour/tone of the instruments</li> <li>The layers of the music/thick and thin</li> <li>Sections within the music/How the music is built</li> </ul> <p><b>Tonality</b> - The key of a piece of music e.g Major</p>	 <b>C Major chord</b> 	<p><b>Tab</b> – (Tablature), or tab for short is a form of musical notation indicating instrument fingering rather than musical pitches</p> <p><b>Analyse</b> – To analyse is to explain a thing or idea (such as how it works or how it creates its effect) by referring to the important parts within the music</p>																																
Linked Assessment	Low stakes test Half Term Assessment	Low stakes test Half Term Assessment	Low stakes test Half Term Assessment	Low stakes test Half Term Assessment	Low stakes test Half Term Assessment																															
Resources	Music files on SharePoint  <a href="https://tinyurl.com/eggucklandmusicpiano">https://tinyurl.com/eggucklandmusicpiano</a>																																			

Part	Key Learning	Disciplinary/Literacy	Linked Assessment	Resources
1	<h2>Calling 999 and what to expect:</h2> <p>You will be asked:</p> <ul style="list-style-type: none"> <li>• What emergency service do you require?</li> <li>• What's your name?</li> <li>• Where are you?</li> <li>• What has happened?</li> <li>• How many people have been hurt?</li> <li>• Is anyone unconscious?</li> <li>• Has anyone stopped breathing?</li> <li>• Is anyone bleeding – if so, how badly?</li> <li>• Are there any hazards or dangers around?</li> </ul>	<p><b>Unconscious</b> – when someone does not respond to you speaking or does not respond to touch.</p> <p><b>DRAB</b> - Danger, Response, Airways, Breathing.</p>		
2	<h2>CPR and how to do it</h2> <p><b>CPR sequence for an adult casualty:</b></p> <ul style="list-style-type: none"> <li>• 30 chest compressions using both hands, followed by 2 rescue breaths</li> </ul> <p><b>CPR sequence for a child:</b></p> <ul style="list-style-type: none"> <li>• 5 initial rescue breaths, then 30 chest compressions using <u>one hand only</u> followed by 2 rescue breaths.</li> </ul> <p><b>CPR sequence for a baby:</b></p> <ul style="list-style-type: none"> <li>• 5 initial rescue breaths, then 30 chest compressions using <u>two fingers only</u>, followed by 2 rescue breaths.</li> </ul> 	<p><b>CPR – (Cardio Pulmonary Resuscitation)</b> When you press on someone's chest and you breathe into someone's mouth to keep them alive.</p> <p><b>Chest compression</b> – when you press down onto the casualty's sternum.</p> <p><b>Sternum</b> – the chest bone in the centre of the rib cage, where all the ribs are fused together.</p> <p><b>Rescue breath</b> – when you blow air into their chest through their mouth. (with a baby you blow over both their nose and mouth)</p>		
3	<h2>Big bleeds and clinical shock</h2> <ul style="list-style-type: none"> <li>• Press on the wound (ideally use the casualty's own hand)</li> <li>• Raise the wound above heart level (to reduce bleeding)</li> <li>• Bandage the wound (to help stop the bleeding and protect it from infection)</li> <li>• Call 999 for an ambulance.</li> </ul> 			

Part	Key Learning	Disciplinary/Literacy	Resources
1	<p><b>Scones – Function of ingredients</b></p> <p>Scones are produced using the rubbing in cake making method. They can be made sweet or savoury. Popular flavourings include dried fruit or cheese. Each ingredient in the scone plays an important role in the recipe. Self raising flour bulks out the dough and contains a raising agent called baking powder. This helps the scone to rise when baked. Butter adds moisture and flavour to the scones. Milk binds the mixture together. Milk can be brushed on the top of the scone to create a shiny appearance. This is called a glaze.</p>	<p><b>Rubbing In</b> - Rubbing fat into flour traps air into the mixture</p> <p><b>Kneading</b> – developing dough into a smooth, elastic dough.</p> <p><b>Glazing</b> – a coating that makes the appearance of a produce shiny like a varnish.</p>	 <b>SCAN ME</b>
2	<p><b>Scone based pizza</b></p> <p>The scone based pizza provides a further opportunity to practice the skill of rubbing in, forming and shaping a dough. Egg is used in the recipe to enrich the dough.</p> <p>The Eatwell guide shows how eating different foods can make a healthy and balanced diet. It divides food into groups and shows how much of each food group is needed for a healthy diet. The groups of the Eatwell guide are: Fruit and vegetables, starchy carbohydrates, protein, dairy and alternatives, oils and spreads.</p> <p>Macronutrients are needed in large amounts in the diet – protein, carbohydrate and fat. Micronutrients are needed in small amounts – vitamins and minerals.</p>	<p><b>Grate</b> – to make coarse or fine threads by rubbing over one size of a grater.</p> <p><b>Dough</b> – a mixture of dry ingredients and liquid that is mixed, kneaded, shaped and then baked.</p> <p><b>Enrich</b> - use egg to add nutritional value and flavour to a dough.</p>	 <b>SCAN ME</b>
3	<p><b>Simple and complex carbohydrates</b></p> <p><b>Granola bars</b> incorporate the macronutrient carbohydrate through the oats. Oats provide starchy carbohydrate also known as complex carbohydrate. They release energy slowly into our bodies. Starchy carbohydrate provides our body with dietary fibre as well as energy. The Golden syrup and sugar found in the granola bar provides our bodies with Sugary carbohydrate also known as simple carbohydrate. It releases energy quickly into our bodies. Sugary carbohydrates are known as empty calories as it only provides our body with energy. It has no other nutritional value.</p>	<p><b>Carbohydrate</b> – one of the five nutrients – a macronutrient.</p> <p><b>Simple carbohydrate</b> – Carbohydrates from sugar (glucose, sucrose)</p> <p><b>Complex carbohydrate</b> – Carbohydrate from starch (potatoes, rice, bread)</p>	
4	<p><b>Sugar - Re think your drink</b></p> <p>Sugar is a simple carbohydrate. The only nutrient it provides our body with is energy.</p> <p>Sugar is produced from sugar cane (grown in a hot climate) and sugar beet (grown in a cool climate)</p> <p>Too much sugar can be harmful to our bodies and can cause tooth decay, obesity and Type 2 diabetes. A person should have no more than 30g of sugar per day (6 teaspoons)</p> <p>Sugar is often hidden in foods such as fizzy drinks, bread, tomato ketchup and pasta sauce.</p>	<p><b>Tooth decay</b> - damage to a tooth caused by dental plaque turning sugars into acid</p> <p><b>Calories</b> – a unit that can be used to measure energy.</p> <p><b>Energy</b> - provided by the carbohydrate, protein and fat in the food and drinks we consume. Different food and drinks provide different amounts of energy</p>	
5	<p><b>Spaghetti Bolognese</b> is made using minced beef. Minced meat is cut up or ground into small pieces to break down the muscle fibres in the meat to tenderise it. Meat is an excellent source of high biological value protein. Protein is needed for growth and repair of body cells. The fat content varies in different cuts of meat. Meat contains saturated fat which can cause heart disease. Lean mince contains less fat or visible fat can be trimmed from other meat cuts such as bacon. Meat is high in iron. Iron is a component of haemoglobin which gives blood cells their red colour. Haemoglobin carries oxygen around the body to all cells for the production of energy and the maintenance of cells.</p>	<p><b>High-risk foods</b> – ready to eat moist foods, usually high in protein.</p> <p><b>Minced</b> – Cut up or ground into very small pieces</p> <p><b>Translucent</b> – see through</p> <p><b>Tenderise</b> - A process to reduce the toughness of meat fibers in a cut of meat. Tenderizing breaks down the meat fibers and softens the meat, making it easier to chew.</p>	
6	<p><b>Rock buns</b></p> <p>We need energy for breathing, keeping our organs, digesting food, activities such as walking, running and even sitting down. The amount of energy we need depends upon our age, gender, activity level, our health and body size. Energy balance – if we eat more food than we need and do not use it up by exercising any energy is changed into fat and we put on weight. If we eat less food than we need and use it up we use up the fat stores and lose weight. If we eat the right amount of food for our energy needs we maintain our body weight.</p>	<p><b>Energy balance</b> – ensuring we eat the correct amount of food for our energy needs</p> <p><b>Basal metabolic rate - BMR</b> – the rate at which a person uses energy when resting</p> <p><b>Kilocalories</b> – a unit of measurement for energy in food.</p>	

Part	Key Learning	Disciplinary/Literacy	Resources																		
1	<p><b>Softwood</b> Softwoods come from coniferous trees. These often have pines or needles, and they stay evergreen all year round - they do not lose leaves in the autumn. They are faster growing than hardwoods, making them cheaper to buy, and are considered a sustainable material. Softwoods are used by the construction industry and are used to produce paper pulp, and card products.</p> 	<b>Softwood</b> <b>Accuracy</b> <b>Tolerance</b> <b>Safety</b> <b>Dimensions</b>																			
2	<p><b>Lap joint</b> This joint is only slightly stronger than the butt joint as there is a slightly bigger surface area for gluing. This joint is often used for making drawers and cabinets.</p> <table border="1"> <thead> <tr> <th colspan="2">Ease of manufacture</th> <th colspan="4">Suitable material</th> </tr> <tr> <th>Hand Tools</th> <th>Machine Tools</th> <th>Solid Wood</th> <th>MDF</th> <th>Plywood</th> <th>Chipboard</th> </tr> </thead> <tbody> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✗</td> </tr> </tbody> </table>  <p>By K. Cooper 2006</p>	Ease of manufacture		Suitable material				Hand Tools	Machine Tools	Solid Wood	MDF	Plywood	Chipboard	✓	✓	✓	✓	✓	✗	<b>Orthographic</b> <b>Tolerance</b> <b>Accuracy</b> <b>Dimension</b>	
Ease of manufacture		Suitable material																			
Hand Tools	Machine Tools	Solid Wood	MDF	Plywood	Chipboard																
✓	✓	✓	✓	✓	✗																
3	<p>The belt sander is used to smooth materials such as woods and plastics. It is also used to remove small amounts of waste material. It is a dangerous machine if safety is ignored.</p> <ul style="list-style-type: none"> <li>• Loose clothing must be held back by an apron.</li> <li>• Long hair must be tied back for personal safety.</li> <li>• The material is carefully and lightly pushed against the rotating belt and at the same time moved from left to right.</li> </ul> <p>Only the exposed part of the belt can be used because of the position of the guard.</p> 	<b>Waste</b> <b>PPE</b> <b>Dimension</b> <b>Safety</b> <b>Accuracy</b> <b>Precaution</b>																			
4	<p>There are two types of machine drill, the bench drill and the pillar drill. The bench drill is used for drilling holes through materials including a range of woods, plastics and metals. It is normally bolted to a bench so that it cannot be pushed over and that larger pieces of material can be drilled safely.</p> <p>The larger version of the machine drill is called the pillar drill. This has a long column which stands on the floor. This can do exactly the same work as the bench drill but because of its larger size it is capable of being used to drill larger pieces of materials and produce larger holes.</p> 	<b>Safety</b> <b>Guard</b> <b>Chuck</b>																			
5	<p>To finally prepare natural wood and most boards for a suitable finish, different grades of glass paper are used, to produce a blemish free and smooth finish. Glass paper is often referred to as sand paper, but there are other similar abrasive sheets including aluminium oxide, silicon carbide and garnet. Abrasives have a paper or cloth backing, that holds the particles of abrasive in place.</p> <table border="1"> <thead> <tr> <th>GRADE</th> <th>GRIT SIZE</th> <th>DENSITY</th> </tr> </thead> <tbody> <tr> <td>EXTRA COARSE</td> <td>60 TO 40</td> <td>S.2, 2, 3</td> </tr> <tr> <td>MEDIUM COARSE</td> <td>80 TO 100</td> <td></td> </tr> <tr> <td>MEDIUM</td> <td>120 TO 180</td> <td>1, F.2, m.2</td> </tr> <tr> <td>FINE</td> <td>220 TO 280</td> <td>2/0, 0, 1</td> </tr> <tr> <td>VERY FINE</td> <td>320 UPWARDS</td> <td>FLOUR</td> </tr> </tbody> </table>	GRADE	GRIT SIZE	DENSITY	EXTRA COARSE	60 TO 40	S.2, 2, 3	MEDIUM COARSE	80 TO 100		MEDIUM	120 TO 180	1, F.2, m.2	FINE	220 TO 280	2/0, 0, 1	VERY FINE	320 UPWARDS	FLOUR	<b>Abrasive</b> <b>Grit</b> <b>Grade</b>	
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6	<p>When you manufacture a product using woods it will soon be necessary to join parts together. This can be done using fixings such as screws, nails and pins OR through the use of glues. Modern glues are very strong and if adverts on TV are to be believed, joints made with glues can be stronger than the wood itself.</p> <p>Modern Glues - P.V.A. (Polyvinyl Acetate) Glues are very popular as they do not need preparation.</p> 	<b>Adhesive</b> <b>PVA</b> <b>Clamp</b> <b>Assembly</b>																			

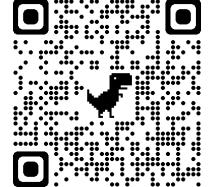
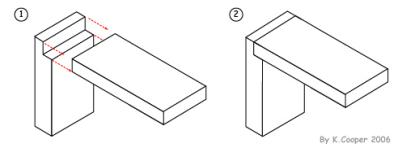
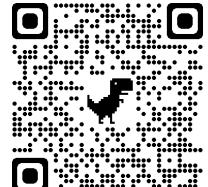
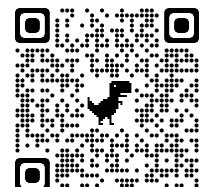
During this project students will be working as a designer/maker to create an ergonomically designed key fob using a monochrome colour palette  
They will find out how 2D Design can create CAD files which can be laser cut from acrylic

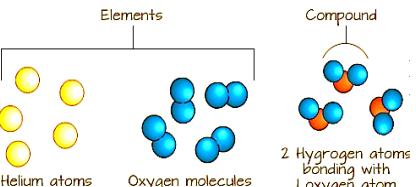
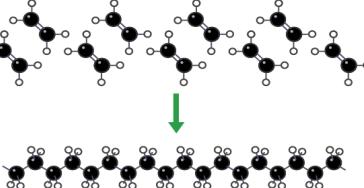
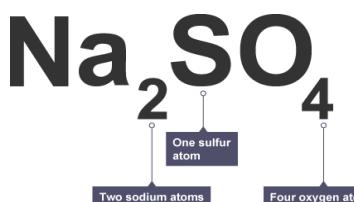
Many plastics are difficult to join effectively. Students will understand how plastic can be welded using tensol cement

Blister packaging will be created using a vacuum former with a standard mould. Card will be designed using CAD for the background

As designers, students need to understand the sustainability of our materials and will come to understand advantages and disadvantages of using plastics

Part	Key Learning	Disciplinary/Literacy	Resources
1	This week, you will be introduced to the project and concepts involved. Teachers will demonstrate the use of CAD or <b>computer aided design</b> , the <b>laser cutter</b> and show you how you can use 2 colours to create a <b>monochrome</b> design. You will need to consider what it means to create an <b>ergonomic</b> product that is comfortable to hold and carry.  As much of this product is completed electronically, you will learn how to <b>save</b> , <b>retrieve</b> and <b>email</b> files.	Ergonomic Monochrome Laser cutter Email CAD	
2	Because this product is made from a plastic <b>acrylic</b> , you will be considering the <b>sustainability</b> of the material. This means that you will consider where the raw materials used to make acrylic come from and environmental issues involved in drilling for it. Although most of our plastics last for many years and this has serious environmental consequences, <b>thermoforming plastics</b> – those that can be melted – can be <b>recycled</b> and turned into new products.	Acrylic Sustainability Recycle Thermoforming	
3	<b>Tensol cement</b> is used to join acrylic to itself. It works by dissolving the surface of the plastic using a <b>solvent</b> . When the solvent evaporates, the surfaces of the acrylic fuse together. This <b>welds</b> the parts together. Tensol cement works differently to other adhesives, it is not a “glue” that sticks parts together, rather as the surfaces dissolve, they fuse together and are welded.	Tensol Cement Weld Adhesive Solvent	
4	Carrying out a <b>product analysis</b> is when we analyse a product identifying its strengths, weaknesses and suitability for use.  When analysing a product you might consider factors such as: the aesthetics or appearance, cost, intended customer, environmental factors, size, safety, function – what it is supposed to do and material.	Product analysis	
5	<b>Vacuum forming</b> is where a thin sheet of <b>thermoforming</b> (heat soften able) plastic is heated so it becomes soft and the air underneath it removed so it sucks down over a mould. This is useful for low volume production and moulds can be made cheaply and easily. Vacuum forming is used extensively on packaging like yoghurt pots, chocolate trays etc and forms the clear plastic <b>blister</b> on <b>blister packaging</b>	Vacuum forming Blister packaging	
6	An <b>evaluation</b> is an essential part of the design process. The designer will review what has been made / done and try to learn what could be improved on future products. As humans, we are constantly evaluating what we do, this is an essential part of the learning and developing process. In “normal life” when we evaluate a situation we do it sub-consciously. In Design Technology, we encourage you to formally consider potential improvements and record them. This is a skill you need to develop for future coursework	Evaluation	

Part	Key Learning	Disciplinary/Literacy	Resources																		
1	<p><b>Softwood</b> Softwoods come from coniferous trees. These often have pines or needles, and they stay evergreen all year round - they do not lose leaves in the autumn. They are faster growing than hardwoods, making them cheaper to buy, and are considered a sustainable material. Softwoods are used by the construction industry and are used to produce paper pulp, and card products.</p> 	<b>Softwood</b> <b>Accuracy</b> <b>Tolerance</b> <b>Safety</b> <b>Dimensions</b>																			
2	<p><b>Lap joint</b> This joint is only slightly stronger than the butt joint as there is a slightly bigger surface area for gluing. This joint is often used for making drawers and cabinets.</p> <table border="1"> <thead> <tr> <th colspan="2">Ease of manufacture</th> <th colspan="4">Suitable material</th> </tr> <tr> <th>Hand Tools</th> <th>Machine Tools</th> <th>Solid Wood</th> <th>MDF</th> <th>Plywood</th> <th>Chipboard</th> </tr> </thead> <tbody> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✗</td> </tr> </tbody> </table>  <p>By K. Cooper 2006</p>	Ease of manufacture		Suitable material				Hand Tools	Machine Tools	Solid Wood	MDF	Plywood	Chipboard	✓	✓	✓	✓	✓	✗	<b>Orthographic</b> <b>Tolerance</b> <b>Accuracy</b> <b>Dimension</b>	
Ease of manufacture		Suitable material																			
Hand Tools	Machine Tools	Solid Wood	MDF	Plywood	Chipboard																
✓	✓	✓	✓	✓	✗																
3	<p>The belt sander is used to smooth materials such as woods and plastics. It is also used to remove small amounts of waste material. It is a dangerous machine if safety is ignored.</p> <ul style="list-style-type: none"> <li>• Loose clothing must be held back by an apron.</li> <li>• Long hair must be tied back for personal safety.</li> <li>• The material is carefully and lightly pushed against the rotating belt and at the same time moved from left to right.</li> </ul> <p>Only the exposed part of the belt can be used because of the position of the guard.</p> 	<b>Waste</b> <b>PPE</b> <b>Dimension</b> <b>Safety</b> <b>Accuracy</b> <b>Precaution</b>																			
4	<p>There are two types of machine drill, the bench drill and the pillar drill. The bench drill is used for drilling holes through materials including a range of woods, plastics and metals. It is normally bolted to a bench so that it cannot be pushed over and that larger pieces of material can be drilled safely.</p> <p>The larger version of the machine drill is called the pillar drill. This has a long column which stands on the floor. This can do exactly the same work as the bench drill but because of its larger size it is capable of being used to drill larger pieces of materials and produce larger holes.</p> 	<b>Safety</b> <b>Guard</b> <b>Chuck</b>																			
5	<p>To finally prepare natural wood and most boards for a suitable finish, different grades of glass paper are used, to produce a blemish free and smooth finish. Glass paper is often referred to as sand paper, but there are other similar abrasive sheets including aluminium oxide, silicon carbide and garnet. Abrasives have a paper or cloth backing, that holds the particles of abrasive in place.</p> <table border="1"> <thead> <tr> <th>GRADE</th> <th>GRIT SIZE</th> <th>DENSITY</th> </tr> </thead> <tbody> <tr> <td>EXTRA COARSE</td> <td>60 TO 40</td> <td>S.2, 2, 3</td> </tr> <tr> <td>MEDIUM COARSE</td> <td>80 TO 100</td> <td></td> </tr> <tr> <td>MEDIUM</td> <td>120 TO 180</td> <td>1, F.2, m.2</td> </tr> <tr> <td>FINE</td> <td>220 TO 280</td> <td>2/0, 0, 1</td> </tr> <tr> <td>VERY FINE</td> <td>320 UPWARDS</td> <td>FLOUR</td> </tr> </tbody> </table>	GRADE	GRIT SIZE	DENSITY	EXTRA COARSE	60 TO 40	S.2, 2, 3	MEDIUM COARSE	80 TO 100		MEDIUM	120 TO 180	1, F.2, m.2	FINE	220 TO 280	2/0, 0, 1	VERY FINE	320 UPWARDS	FLOUR	<b>Abrasive</b> <b>Grit</b> <b>Grade</b>	
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FINE	220 TO 280	2/0, 0, 1																			
VERY FINE	320 UPWARDS	FLOUR																			
6	<p>When you manufacture a product using woods it will soon be necessary to join parts together. This can be done using fixings such as screws, nails and pins OR through the use of glues. Modern glues are very strong and if adverts on TV are to be believed, joints made with glues can be stronger than the wood itself.</p> <p>Modern Glues - P.V.A. (Polyvinyl Acetate) Glues are very popular as they do not need preparation.</p> 	<b>Adhesive</b> <b>PVA</b> <b>Clamp</b> <b>Assembly</b>																			

Part	Key Learning	Disciplinary/Literacy								
1	<p><b>ATOMS, ELEMENTS, COMPOUNDS AND MOLECULES</b> Every element is made up of one type of atom. The atoms of one element are different to the atoms of all other elements. One atom does not have the properties of an element (e.g. gold atoms are NOT shiny or yellow). The properties of an element are the properties of many atoms joined together (together the atoms make gold yellow and shiny). A compound has different properties to the elements in it. All compounds are molecules, but not all molecules are compounds. Hydrogen gas (<math>H_2</math>) is a molecule, but not a compound because it is made of only one element. Water (<math>H_2O</math>) can be called a molecule or a compound because it is made of hydrogen (H) and oxygen (O) atoms.</p> 	<b>Tier 3 KEYWORDS</b>	<b>DEFINITION</b>							
2	<p><b>NAMING COMPOUNDS</b></p> <ul style="list-style-type: none"> <li>Compounds made up of oxygen and another element have two word names. The second word is oxide. (e.g. aluminium + oxygen → aluminium oxide)</li> <li>In any compound of a metal with a non-metal, the ending of the name of the non-metal becomes -ide. (e.g. sodium + chlorine → sodium chloride)</li> </ul>  <table border="1"> <thead> <tr> <th>Number of Atoms</th> <th>Prefix</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>mono-</td> </tr> <tr> <td>2</td> <td>di-</td> </tr> <tr> <td>3</td> <td>tri-</td> </tr> </tbody> </table>	Number of Atoms	Prefix	1	mono-	2	di-	3	tri-	<b>Atom</b> The smallest part of an element that can exist.
Number of Atoms	Prefix									
1	mono-									
2	di-									
3	tri-									
3	<p><b>POLYMERS</b> Polymers are made by chemical reactions that join lots of small molecules together to make long molecules. For example, a molecule of poly(ethene) is made by joining thousands of ethene molecules together. Polymer molecules are big and heavy. This means they melt at high temperatures.</p> 	<b>Carbonate</b> A compound that includes carbon and oxygen atoms, as well as a metal element. There are three atoms of oxygen for every one atom of carbon.								
4	<p><b>CHEMICAL SYMBOLS</b> Every chemical symbol starts with a capital letter, with the second letter written in lower case.</p> <p><b>CHEMICAL FORMULA</b> Shows the elements present in a compound. Shows the number of atoms of each element. Numbers are written to the right of their chemical symbol Numbers are smaller than the chemical symbol.</p> <p><u>Example:</u> sodium sulfate</p> 	<b>Chemical formula</b> A formula that shows the elements present in a compound and their relative proportions.								
5		<b>Elements</b> Substances that all other materials are made up of, and which contain only one type of atom. An element cannot be broken down into other substances.								
6		<b>Hydroxide</b> A compound that includes hydrogen and oxygen atoms, as well as a metal element. There is one atom of oxygen for every one atom of hydrogen.								
		<b>Molecules</b> A group of two or more (up to 1000s) atoms strongly joined together. Most non-metal elements exist either as small or giant molecules.								
		<b>Natural polymers</b> A polymer made by plants or animals. E.g. starch, wool, cotton and rubber.								
		<b>Nitrate</b> A compound that includes nitrogen and oxygen atoms, as well as a metal element. There are three atoms of oxygen for every one atom of nitrogen.								
		<b>Polymers</b> A molecule made by joining up thousands of smaller molecules in a repeating pattern. Plastics are synthetic polymers, and starch is a natural polymer.								
		<b>Sulfate</b> A compound that includes sulfur and oxygen atoms. There are four atoms of oxygen for every one atom of sulfur.								
		<b>Synthetic polymers</b> A polymer made by people, often in a factory. E.g. poly(ethene) and poly(propene).								

Part	Key Learning				Disciplinary/Literacy									
1	<p><b>FORCES</b> Forces change the speed, shape or direction of an object. Force arrows show the direction AND size of the force. Forces always come in pairs; interaction pairs. Forces can be measured with a newtonmeter (force meter). Forces are measured in newtons (N). The size and direction of a resultant force determines how (and if) an object will move.</p>	<table border="1"> <tr> <td>CONTACT FORCES</td> <td>NON-CONTACT FORCES</td> </tr> <tr> <td>Reaction force</td> <td>Magnetism</td> </tr> <tr> <td>Tension</td> <td>Electrostatic</td> </tr> <tr> <td>Friction &amp; air resistance</td> <td>Gravity</td> </tr> <tr> <td>Applied force</td> <td></td> </tr> </table>	CONTACT FORCES	NON-CONTACT FORCES	Reaction force	Magnetism	Tension	Electrostatic	Friction & air resistance	Gravity	Applied force		<p><b>SPEED</b> Speed is measured in miles per hour (mph) or kilometres per hour (km/h). The speed of an object is always relative to the speed of the observer.</p>	<p><b>KEYWORD</b></p> <p><b>DEFINITION</b></p>
CONTACT FORCES	NON-CONTACT FORCES													
Reaction force	Magnetism													
Tension	Electrostatic													
Friction & air resistance	Gravity													
Applied force														
2	<p>These forces acting on a body</p> <p>Give this resultant force</p>		<p>Speed = <math>\frac{\text{Distance}}{\text{Time}}</math></p> <p>Distance = Speed <math>\times</math> Time</p> <p>Time = <math>\frac{\text{Distance}}{\text{Speed}}</math></p>	<p><b>Acceleration</b> How quickly speed increases or decreases.</p> <p><b>Air resistance (drag)</b> The force on an object moving through air that causes it to slow down.</p> <p><b>Average speed</b> The overall distance travelled divided by overall time for a journey.</p> <p><b>Balanced</b> Forces acting on an object that are the same size but act in opposite directions.</p> <p><b>Contact forces</b> Force that acts by direct contact; e.g. friction</p> <p><b>Distance-time graph</b> A graph that shows how far an object moves each second.</p> <p><b>Driving force</b> The force that is pushing or pulling something.</p> <p><b>Equilibrium</b> State of an object when all forces are balanced.</p> <p><b>Friction</b> Force opposing motion which is caused by the interaction of surfaces moving over one another.</p> <p><b>Gravitational field strength</b> The force from gravity on 1kg (N/kg)</p> <p><b>Gravitational force/gravity</b> A non-contact force that acts between two masses.</p> <p><b>Interaction pairs</b> When two objects interact there is a force on each one that is the same size but in opposing directions.</p> <p><b>Mass</b> The amount of matter 'stuff' in an object (kg).</p> <p><b>Newton's (N)</b> Unit for measuring forces (N)</p> <p><b>Non-contact force</b> Force that acts without direct contact, e.g. magnetism.</p> <p><b>Relative motion</b> Different observers judge speeds differently if they are in motion too, so an object's speed is relative to the observer's speed.</p> <p><b>Resistive forces</b> Any force that acts to slow down a moving object.</p> <p><b>Resultant force</b> Single force that can replace all the forces acting on an object and have the same effect.</p> <p><b>Speed</b> How much distance is covered in a given time.</p> <p><b>Unbalanced</b> Opposing forces on an object that are unequal.</p> <p><b>Weight</b> The force of gravity due to the Earth (planet/moon) on an object. Measured in N.</p>										
3														
4	<p>a falling ball</p> <p>b sitting on a table</p>	<p><b>DISTANCE-TIME GRAPH</b> Shows the distance that something travels over a certain time. Horizontal / straight line → object / person stays still. Slope → the steeper the line, the faster the object / person is moving. The graph is curved for an accelerating and decelerating object.</p>	<p>Every object with mass exerts a force on every other object. A field is a region where something feels a force.</p>											
5	<p>All stationary objects are in equilibrium. The resultant force is zero. Objects moving at a steady speed have a resultant force of zero.</p> <p><b>GRAVITY</b> The gravitational force depends on; mass of each object and how far apart they are. If the mass is larger, the force is larger, if the distance is larger the force is smaller. Weight is calculated using the formula; <math display="block">\text{weight (N)} = \text{mass (kg)} \times \text{gravitational field strength (N/kg)}</math></p>													
6	<p>Gravitational field strength (g) is different on other planets, moons and stars. Your weight would be different on different planets because g would be different.</p> <p>Gravity keeps things in orbit; the force acting on the Moon keeps the Moon in orbit around Earth.</p>													

# My Diary :

<b>Week</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
<b>1</b>	28/02/2022	01/03/2022	02/03/2022	03/03/2022	04/03/2022	05/03/2022	06/03/2022
<b>2</b>	07/03/2022	08/03/2022	09/03/2022	10/03/2022	11/03/2022	12/03/2022	13/03/2022
<b>3</b>	14/03/2022	15/03/2022	16/03/2022	17/03/2022	18/03/2022	19/03/2022	20/03/2022
<b>4</b>	21/03/2022	22/03/2022	23/03/2022	24/03/2022	25/03/2022	26/03/2022	27/03/2022
<b>5</b>	28/03/2022	29/03/2022	30/03/2022	31/03/2022	01/04/2022	02/04/2022	03/04/2022
<b>6</b>	04/04/2022	05/04/2022	06/04/2022	07/04/2022	08/04/2022		

# My Homework

Week						
28/02/2022						
07/03/2022						
14/03/2022						
21/03/2022						
28/03/2022						
04/04/2022						

# **My Reading Record - To be completed at the end of each DEAR session**

Date	Book Title	Pages	Main Events
28/02/2022			
01/03/2022			
02/03/2022			
03/03/2022			
04/03/2022			
07/03/2022			
08/03/2022			
09/03/2022			
10/03/2022			
11/03/2022			
14/03/2022			
15/03/2022			
16/03/2022			

# **My Reading Record - To be completed at the end of each DEAR session**

Date	Book Title	Pages	Main Events
17/03/2022			
18/03/2022			
21/03/2022			
22/03/2022			
23/03/2022			
24/03/2022			
25/03/2022			
28/03/2022			
29/03/2022			
30/03/2022			
31/03/2022			
01/04/2022			
04/04/2022			
05/04/2022			
06/04/2022			

## **My Reading Record - To be completed at the end of each DEAR session**

Date	Book Title	Pages	Main Events
07/04/2022			
08/04/2022			

# **Home Contact**