

# THE BOURNE ACADEMY KNOWLEDGE ORGANISER

everyone is a learner, everyone is a teacher



**Year 7**  
**Spring Term 2023-24**

**A**mbitious

**S**elf Confident

**P**hysically Literate

**I**ndependent

**R**esilient

**E**motionally Literate

Name: .....

House: .....

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## Excellence at The Bourne Academy: Using your Knowledge Organisers'

'Don't just practise until you get it right practise until you can't get it wrong.' - Daniel Willingham

### Routines for Excellence

- You will get out your TBA Knowledge Organiser Booklet at the start of every lesson along with your Knowledge Organiser practise exercise book
- Your teacher will set you sections of the Knowledge Organiser to learn, off by heart, in every lesson.
- Your teacher will set you quizzes to test your knowledge every lesson.
- Your teacher will regularly set you questions that require you to APPLY your knowledge
- Your TBA Knowledge Organisers are saved on Show My Homework and on TBA website

### How to revise with your Knowledge Organisers'

#### Self-quizzing

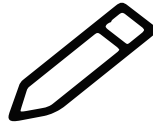
**Look/read, cover, write** and then **green pen check** your answers to show you where your 'knowledge gaps' are. Repeat until you have mastered the knowledge...until you can't get the knowledge wrong



Look/Read



Cover



Write



Check

#### Low-stakes testing

Your teachers will always have a '**Do now**' activity on the board at the start of lesson. Do as much as you can from memory. Use your Knowledge Organiser to **green-pen check** what you have accurately remembered. **Then green pen correct**. Repeat, each time **checking** and **correcting** until you have mastered your knowledge gaps.



## HOW DO WE REVISE WITH OUR KNOWLEDGE ORGANISERS?

### RECORD IT

Record yourself on your phone or tablet reading out the information. These can be listened to as many times as you want.



### TEACH IT

Teach someone your key facts and then get them to test you, or even test them.



### FLASH CARDS

Write the keyword/date on one side and the explanation on the other. Ask someone to quiz you on either side.



### BACK 2 FRONT

Write down the answers and then write what the questions the teacher may ask to get those answers.



### HIDE AND SEEK

Read through your Knowledge Organiser, put it down and try to write out as much as you can remember. Then keep adding to it until it is full.



### SKETCH IT

Draw pictures to represent the facts or dates. It could be a simple drawing or something that reminds you of the answer,



### POST ITS

Using a pack of post it notes, write out as many of the keywords or dates as you can remember in 1 minute.



### PRACTICE

Some will remember knowledge by simply writing the facts, over and over again.

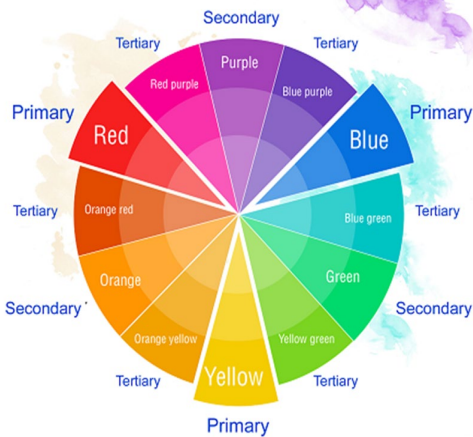





### READ ALOUD

Simply speak the facts and dates out loud as you're reading the Knowledge Organiser. Even try to act out some of the facts - it really helps you remember.





Basic Skills		Understanding Visual Elements, Colour Theory and Key Terms	
<b>A. The Colour Wheel</b>		<b>B. Colour Theory</b>	<b>C. Mixing Colours</b>
 <p>The Colour Wheel is the tool to helping you understand colour theory. Artists use the wheel to see which colours are harmonious and which are complementary.</p>		<p>Colour Theory is a set of rules for colour mixing and colour combinations to make an artwork eye catching.</p>  <p><b>Primary Colours</b> are a set of three colours that cannot be created by mixing other colours. They are red, blue, and yellow.</p>  <p><b>Secondary Colours</b> are colours created by mixing two primary colours.</p>  <p><b>Tertiary Colours</b> are colours resulted by mixing a primary colour with a secondary colour.</p>	<p>When mixing secondary colours, equal amounts of primary colours should be added together.</p> <p>When mixing tertiary colours, equal amounts of primary and secondary colours should be added together.</p> <p>When all three primary colours are mixed, a <b>neutral</b> colour is made: a brown-grey colour.</p> <p><b>Complementary</b> colours are opposites on the 'Colour Wheel'; each primary colour is opposite a Secondary colour. These colours bring out the intensity in each other. They have high contrast and high impact together.</p> <p><b>Harmonious</b> colours sit beside each other on the 'Colour Wheel' and work well together.</p>
<b>D. Keywords</b>			
<p><b>The Colour Wheel:</b> a simple Colour Wheel is made up of 12 colours, including 3 primary colours, 3 secondary colours and tertiary colours.</p> <p><b>Hue:</b> another term for colour. The pure colour.</p> <p><b>Tint:</b> the pure colour, mixed with white.</p> <p><b>Tone:</b> the pure colour, mixed with grey.</p> <p><b>Shade:</b> the pure colour, mixed with black.</p>			



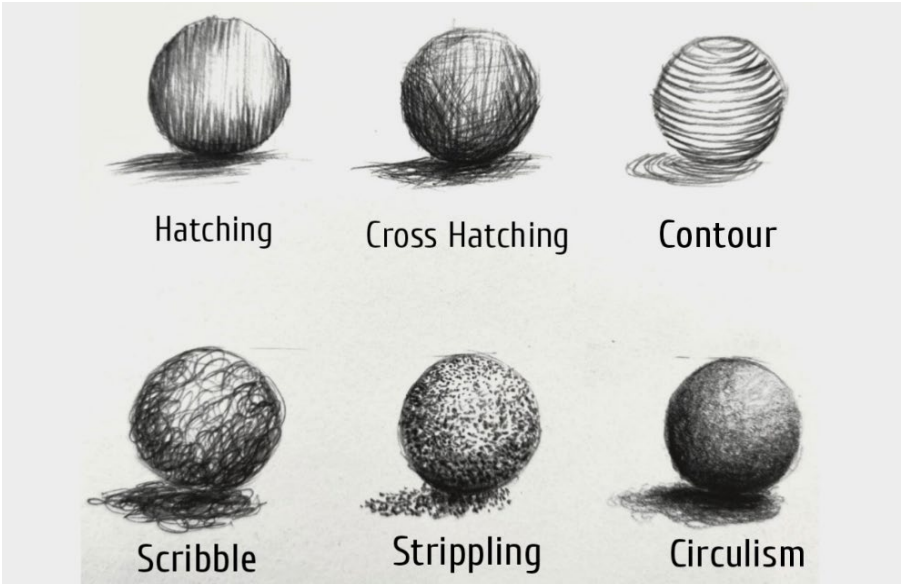
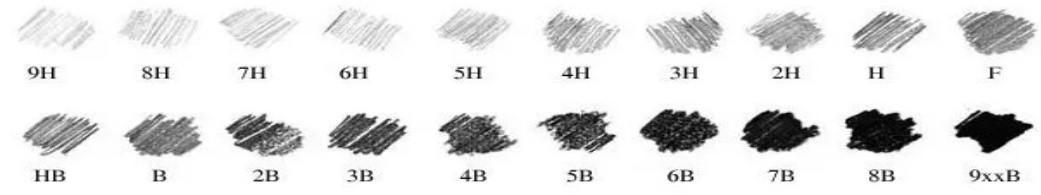
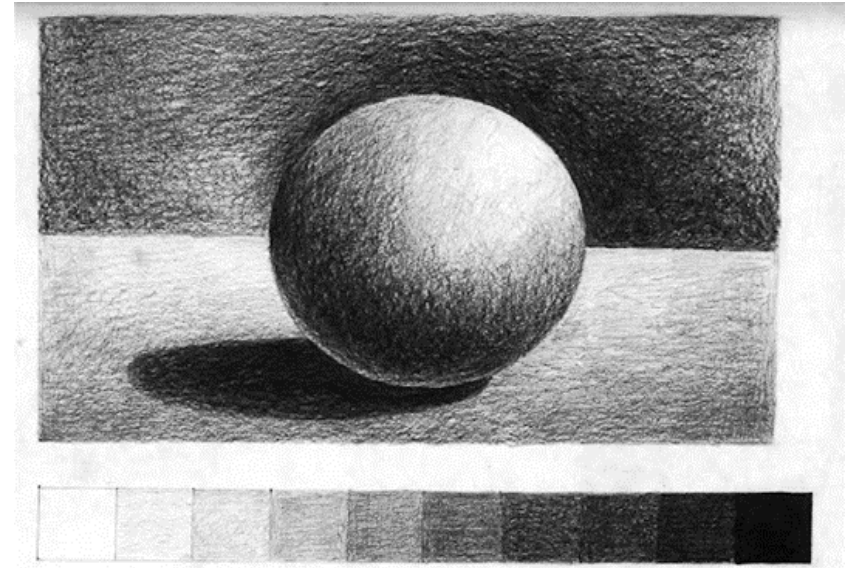
E. Definitions	
<p>a) <b>Line</b> – a mark made using a drawing tool or brush. They can be thick or thin, horizontal, vertical, curved, etc.</p> <p>b) <b>Shape</b> – an area that is enclosed by line(s); two-dimensional or flat.</p> <p>c) <b>Form</b> – an area that is three-dimensional and includes height, width and depth (as in a cube, a sphere, a pyramid, or cylinder).</p> <p>d) <b>Texture</b> – how something feels. There are two types of texture: actual (tactile) texture and visual texture (that can be created).</p> <p>e) <b>Pattern</b> – a design in which lines, shapes, forms or colours are repeated. The part that is repeated is called a motif.</p> <p>f) <b>Tone</b> – refers to the light and dark values used to make an object look realistic. Shading is used to create shadows and create ‘form’.</p> <p>g) <b>Surface</b> – the surface affects how a colour is reflected or scattered, depending upon its texture.</p> <p>h) <b>Composition</b> – refers to the arrangement or placement of things within an artwork.</p>	<p>i) <b>Media</b> – the material and tools used by an artist to create an artwork, e.g., "pen and ink" where the pen is the tool and the ink is the material.</p> <p>j) <b>Expression</b> – the ability to show emotion or create a mood or feeling within a piece of art.</p> <p>k) <b>Contrast</b> – refers to the arrangement of opposite elements and effects, e.g., light and dark colours, smooth and rough textures.</p> <p>l) <b>Proportion</b> – refers to the dimensions of a composition and relationships between height, width and depth. Proportion also describes how different parts of a piece of art relate to each other.</p> <p>m) <b>Perspective</b> – refers to the representation of three-dimensional objects or spaces in two-dimensional artworks. Artists use perspective techniques to create an impression of depth.</p> <p>n) <b>Mark making</b> – describes the different lines, dots, marks, patterns, and textures we create in an artwork. It can be loose and gestural or controlled and neat.</p> <p>o) <b>Vibrant</b> – refers to the intensity of colour, they are bright and strong.</p>

**1. Definitions:**

- a) **Line** – a mark made using a drawing tool or brush. They can be thick, thin, horizontal, vertical, zigzag, diagonal, curly, curved, spiral etc.
- b) **Shape** – an area that is enclosed, created through lines; two-dimensional, flat, or limited in height and width.
- c) **Form** – an area that is three-dimensional and enclosed; includes height, width and depth (as in a cube, a sphere, a pyramid, or cylinder).
- d) **Texture** – how something feels. There are two types of texture; actual (tactile) texture and visual texture (that can be created).
- e) **Pattern** – a design in which lines, shapes, forms or colours are repeated. The part that is repeated is called a motif. Patterns can be regular or irregular.
- f) **Tone** – refers to the light and dark values used to render a realistic object. Shading is used to create shadows and create 'form'.
- g) **Surface** – the uppermost layer of a thing. The surface determines how a colour is reflected, absorbed or scattered, depending upon its texture.
- h) **Expression** – the ability to convey emotion or create a mood or feeling within a piece of art.
- i) **Contrast** – refers to the arrangement of opposite elements and effects. For example, light and dark colours, smooth and rough textures, large and small shapes.
- j) **Proportion** – refers to the dimensions of a composition and relationships between height, width and depth. Proportion also describes how the sizes of different parts of a piece of art or design relate to each other.
- k) **Perspective** – usually refers to the representation of three-dimensional objects or spaces in two dimensional artworks. Artists use perspective techniques to create a realistic impression of depth, and 'play with' perspective to present dramatic or disorientating images.
- l) **Negative Space** – is the space around and between the subject of an image. Negative space may be most evident when the space around a subject, not the subject itself, forms an interesting or artistically relevant shape.
- m) **Mark-making** – describes the different lines, dots, marks, patterns, and textures we create in an artwork. It can be loose and gestural or controlled and neat.
- n) **Experiment** – a desire to extend the boundaries of the art in terms of materials or techniques, which can include novel and provocative ideas expressed through traditional or innovative techniques, to explore creative possibilities.
- o) **Space** – or 'positive space' in a work of art refers to a feeling of depth or three dimensions. It can also refer to the artist's use of the area within the picture plane.
- p) **Design** – refers to a visual look or a shape given to a certain object, to make it more attractive, make it more comfortable or to improve another characteristic.
- q) **Vibrant** – refers to the intensity of colour; they are bright and strong.



**2. In Art, tone refers to the degree of lightness or darkness of an area.**  
 Tone varies through the bright white of a light source (and highlights), through shades of grey to the deepest black shadows.  
**You should practice different methods of shading so that you are able to record observations accurately, and shade with confidence so that drawings have tonal values; drawings look realistic and three-dimensional.**



- **Gradient / graduation** – shading with graphite or charcoal, increasing pressure for darker areas
- **Hatching** – shading using one-directional lines only
- **Cross-hatching** – shading using lines that cross over one another
- **Stippling** – shading using dots, close together for darkest areas
- **Gestural** – mark making with varied pressure applied, to create the ‘impression’ or ‘illusion’ of texture
- **Circulism** – shading using many overlapping circles
- **Scribbling** – shading method used to create texture
- **Blending** – technique of gently overlapping or overlaying colour to create a gradual transition or ‘intermingling’; can be used to soften lines and add a subtlety to work.



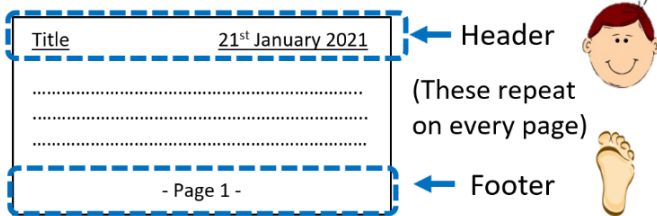


## 1. Word Processing

### a) Microsoft Word

Word processing software, such as for creating letters/essays

### b) Headers and footers repeat on every page



**c) Formatting** is changing the appearance or the layout of a document

**d) Theme** is having consistent formatting throughout a document.

**e) Template** is a file that has a pre-created layout and style acting as a document's starting point

**f) Mail merging** allows us to create a large number of personalised documents based on a single template

**g) Hard copy** is a physical (printed) copy of a document, such as a letter handed to someone

**h) Soft copy** is a digital copy of a document, such as an email attachment

## 2. Spreadsheets

### a) Microsoft Excel

Spreadsheet software is used to organise data. We can then run powerful calculations, make graphs and charts, and analyse patterns. For example: tracking money with a budget

**b) Formulas** are used to calculate values between different cells e.g.

=A1\*B1 (multiply)      = A1/B1 (divide)

**c) Functions** are pre-set formulas that quickly perform a range of complex tasks, such as:

=SUM(A1:A10)      adds up total value  
 =MAX(A1:A10)      finds the highest value  
 =AVERAGE(A1:A10)      finds the average

**d) Sort** organises data, such as alphabetically

**e) Filter** is used to find specific data by only showing certain types of data

**f) Rows** are horizontal. **Columns** run vertically

**h) Data types** are the format of the values in the cells, such as: £, %, date, time

**i) Conditional formatting** automatically changes the appearance of cells based on their value

## 3. Data

**a) Data** is raw (unprocessed) numbers, text and symbols. For example:

Fred, Joan, 14, 12, Lucy, 13

**b) Information** is data that has been given meaning and structure. For example:

Fred is 12

Joan is 13

Lucy is 14

**c) Charts/Graphs** are used to visually represent data to easily compare data and spot patterns

### Bar Chart

Used to show comparisons

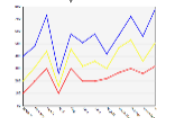


### Pie Chart

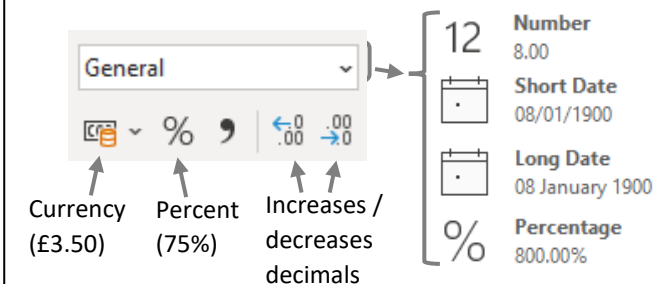
Used to show proportions

### Line Graph

Used to show trends



**d) Data types** are the format of the values in the selected cells, such as: £5.99, 21/03/23, 46%





### 1. Word Processing

Microsoft Word 

#### a) Using Templates

Create a CV (one page summary when applying for jobs) using Word templates:

- i) Open Word, and search for “CV” in the online templates.
- ii) Start adding your information, such as your skills, what subjects you’re good at, and what clubs/activities you do outside of normal lessons.
- iii) Save your document as “**CV**” in your computing folder (in your OneDrive area)

#### b) Headers and footers


Create a new word document with 50 blank pages (use Ctrl + Enter to quickly add pages)

By inserting headers and footers, add the following on every page:

- i) Title “**Headers and Footers**”
- ii) Today’s date (which automatically stays up to date)
- iii) In the footer, page numbers, which automatically number each page

Save your document as “**Headers and Footers**” in your computing folder (in your OneDrive area)

### 2. Spreadsheets

Microsoft Excel 

#### a) Recording Data

In Student Resources → !IT → Scholar open “data for spreadsheet extension”.

Now start a new spreadsheet file and create a table to record the information from the word document you just opened. Then:

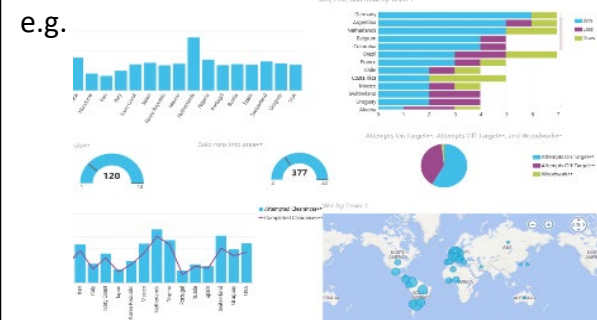
- i) Add formulas to add up each team’s scores
- ii) Add a function to find out the average score each team got over the season
- iii) Add a function to find out the maximum score each team got over the season

=SUM(A1:A10)      adds up total value  
 =MAX(A1:A10)      finds the highest value  
 =AVERAGE(A1:A10)    finds the average

- iv) Create a line graph to compare the results of how each team performed over the season.
- v) Add formatting to make your table of data stand out so it is clear. Add a title bar at the top and insert some suitable graphics.
- vi) Save your spreadsheet as: “**Sport Results**” in your computing folder (in your OneDrive area)

### 3. Data Dashboard

a) **Data dashboard** is a visual display of data providing information at a glance to track, analyse and gain a deeper understanding



#### b) Create a Data Dashboard

- i) Ask Mr Orme for the “Weather Dashboard” booklet.
- ii) Open a new blank spreadsheet file
- iii) Import the CSV file (location in booklet) into your spreadsheet.
- iv) Work through the booklet to create an interactive spreadsheet
- v) Add formatting to make your table of data stand out so it is clear. Add a title bar at the top and insert some suitable graphics.
- vi) Save your spreadsheet as “**Weather Dashboard**” in your computing folder (in your OneDrive area)



### 1. Performance Keywords

Projection	Extending your energy out to the audience.
Focus	Where you are looking.
Spatial Awareness	Being aware of your body in space.
Expression	Performing with emotion
Phrasing	Showing the individual phrases of movement within a motif.
Musicality	Demonstrating the qualities of the music in the way you perform the actions.
Sensitivity to other dancers	Being aware of others in the space and through your performance.
Communicating artistic intention	Communicating the stimulus through expressive qualities.

### 2. Technical Skills Keywords

Accuracy	How accurately you can replicate the movement
Alignment	Good alignment means that your entire body follows a straight plumb line.
Balance	Showing control whilst holding weight over a single point.
Co-ordination	Moving more than one body part at the same time.
Flexibility	The range of motion around a joint.
Movement memory	Movement memory occurs in the muscles. Your body remembers the movement as well as your brain.
Posture	How your torso is positioned.
Stamina	Your ability to keep going even though your cardiovascular and muscular systems are working hard.
Strength	Producing resistance against a force.
Timing	Maintaining timing with the music and/or fellow dancers.

<b>Relationships (With whom?)</b>	<b>Actions (What)</b>
Canon (one after the other), unison (at the same time), direct correlation (choreography has a clear relationship with the music), duet (two dancers), trio (three dancers), quartet (four dancers).	Jump (air bound movement), turn (rotation), travel (movements which uses space), transference of weight (use of weight), stillness (no movement), gesture (movement which does not bear weight).
<b>Space (Where)</b>	<b>Dynamics (How)</b>
Directions (North, South, East and West), facings (the direction your body faces), changes of level (low, medium, high), proximity (how close you are to someone else), formations (shapes you create when standing in a space).	Sharp, soft, direct, indirect, sustained, sudden, fast, slow.



### Basic Dance Actions:

- Gesture
- Jump
- Turn
- Travel
- Balance
- Fall

### Dance Styles:

- Contemporary
- Jazz
- Ballet
- Street
- Latin
- Bollywood

### Key Vocabulary

Choreography	The art of creating dance.
Movement Memory	The automatic recall of learned movement material, without conscious thought.
Phrase	A short sequence of linked movements.
Stimulus	Inspiration for an idea or movement.
Performance	The presentation of dance to an audience.



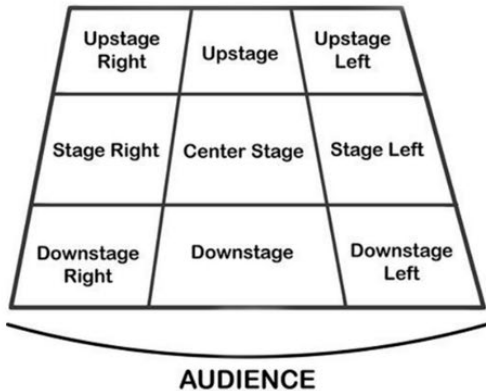
1. Dance Vocabulary (RADS)	
A. Relationships (With whom?)	B. Actions (What)
Canon (one after the other), unison (at the same time), direct correlation (choreography has a clear relationship with the music), duet (two dancers), trio (three dancers), quartet (four dancers), formations (shapes you create when standing in a space).	Jump (air bound movement), turn (rotation), travel (movements which uses space), transference of weight (use of weight), stillness (no movement), gesture (movement which does not bear weight).
C. Dynamics (How?)	D. Space (Where?)
Sharp, soft, direct, indirect, sustained, sudden, fast, slow,	Directions (forward, backwards, side, diagonally), facings (the direction your body faces), changes of level (low, medium, high), proximity (how close you are to someone else)
E. Dance Structures	F. Describe your Dance
Every dance we choreograph will be made up of different sections. The structure is the order we put the section of our dance in. There are four basic structures that we can use when choreographing dances:	Begin with <b>Action</b> content: E.g. Lift your right arm to the side and then above your head before rotating your left shoulder.
<b>A B Binary</b> The two sections are different from each other.	Then add the <b>Space</b> : E.g.Face the audience, standing centre stage.
<b>A B C Ternary</b> The three sections are different from each other.	Move on to describe the <b>Dynamics</b> : E.g.Lift your hand slowly, gently over 8 counts.
<b>A B A C A D Rondo</b> In this structure there is a section that is always repeated.	Finally, the <b>Relationship</b> : E.g.Mirroring each other.



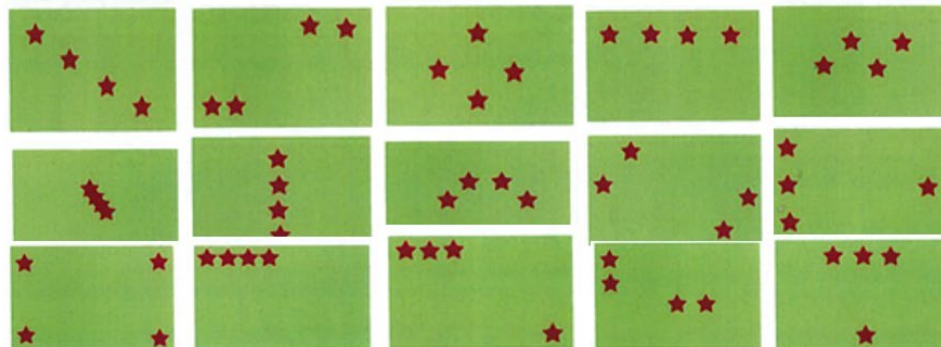
**2. Choreographic Devices**

<b>2. Choreographic Devices</b>	
<b>G. Change the Space</b>	<b>H. Change the Dynamics</b>
Levels (high, medium, low) Size of movement (small, medium, large) Directions (north, south, east, west) Change from near to far proximity (distance) Dance in different areas of stage (upstage, downstage etc)	The speed – faster / slower The quality – stronger, softer, sharper, more direct, more flowing etc.
<b>I. Change Action</b>	
Add in action and add another action E.g., a jump and turn together Take out actions Repetition – repeat the motif or action	
<b>J. Change the relationships</b>	<b>L. Change the structure / order</b>
Add in canon, unison Make it action reaction with a partner Lead and following Mirroring it with your partner Change formations	Retrograde – motif performed backwards Fragmentation – changing the order of action in motif

**M. Stage Directions**








**N. Examples of formations for a quartet**





**3. What are the Different Types of Stimulus?**

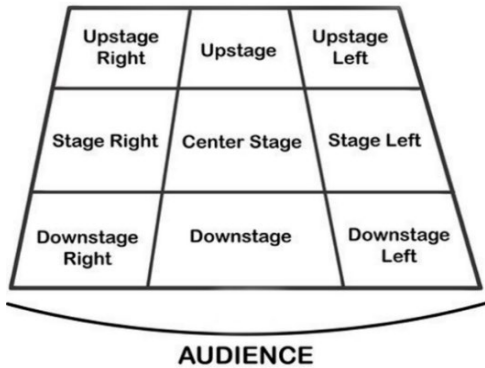
				
<b>Visual</b>	<b>Auditory</b>	<b>Tactile</b>	<b>Kinesthetic</b>	<b>Ideational</b>
Things you can see.	Things you can hear.	Things you can touch.	Movement itself or movement ideas.	An idea, emotion, story or narrative.
E.g. Paintings, Pictures, Sculptures, Objects, Patterns, Shapes.	E.g. Music, Natural Sounds, Spoken Poems, Voices, Found/Created Sounds.	E.g. Props, Costumes, Clothing, Material, Objects.	E.g. Different Dance Styles, Phrases, Sequences, Movements, Dynamics.	E.g. Stories, Experiences, Plays, Films, Narrative, Books, Fairy Tales, Emotions.

<b>4a. Evaluation of your choreography</b>	<b>4b. Q. Evaluation of your performance</b>
How did you work in your group?	Strengths of your performance?
Strengths of your work?	What would you do better next time?
What would you do differently next time?	Target for your next performance?



1. Key Words	Definition
A. Script	Written by a playwright, which tells the actors what to say and do.
B. Playwright	A person who writes the scripts for plays, which then go on to be staged in theatrical productions
C. Stage Directions	Stage Directions tell the actors how to speak or act their character in a certain way. Stage Directions also explain how the staging may be in the performance
D. The stage	The area in which you perform.
E. Rehearsal	A practice of the performance. You can have dress rehearsals and technical rehearsals.
F. Naturalistic	Acting as realistically as possible as close to 'real life' as an actor can perform.
G. Stanislavski	A Russian theatrical practitioner. He believed in naturalistic performances that were as realistic as possible.
H. Dramatic Tension	drives the drama and keeps an audience interested. The tension comes when opposing characters, dramatic action, ideas, attitudes, values, emotions and desires are in conflict creating a problem that needs to be resolved
I. Entrances and Exits	How a character comes onto and leaves the stage. This must be done in character.

**2. Stage Positioning**



**3. Learning Lines**

<b>Read and cover</b>	Read the line out loud, then cover the script with your hand and try and say the line without reading it. Repeat until you've learnt it
<b>Gesture and Action</b>	For each line you need to add a choreographed movement or gesture for each line
<b>Vocal Skills</b>	Experiment with different vocal dynamics. Change the volume of your voice for each line. The first line you might shout, then whisper the second and say the third at a normal speaking volume. Add a Liverpool accent
<b>Call and Response</b>	A partner reads you one of your lines and you repeat it back to them without looking at the script until learnt. Then add the next line putting them together.





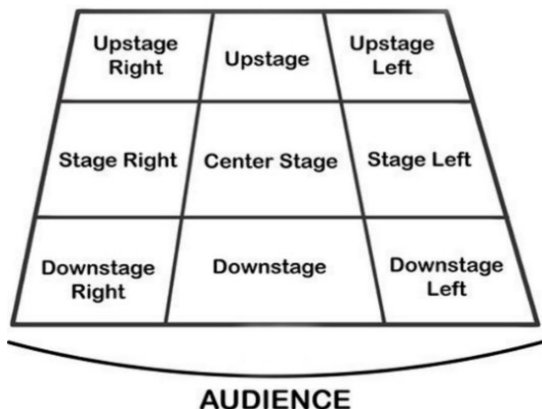
4. Physical Performance Skill	Definition
A. Gesture	a movement of part of the body to express a particular feeling, idea or intention, e.g. a nod of the head
B. Movement	when the actor uses their facial expressions, gestures, body language and levels to communicate their emotions to the audience
C. Facial Expression	a look on the face that shows how someone is feeling; using the way you look to get our points across
D. Posture	the way an actor positions and stands or walks to convey a character or emotion
E. Body Language	a way of an actor communicating the feelings of their character using the position of your body, or actions

5. Vocal Performance Skill	Definition
A. Tone	a quality in the voice that expresses the speaker's feelings or thoughts, often towards the person being spoken to
B. Volume	the level of sound produced by a an actor
C. Pace	The speed at which an actor speaks
D. Pause	a short period where an actor stops speaking before starting again. Used to create meaning or dramatic tension.
E. Diction	When an actors speaks clearly to deliver their lines.
F. Accent	the manner of speaking or pronunciation; which can communicate information about a character to an audience.

6. Evaluating Performance	Step One Before Performance	Step Two During Performance	Step Three After Performance Be ready to share your evaluation
A. What went well?	Select either a physical or vocal performance skill to evaluate	While you watch the performance look out for specific examples of how the skill is being used and the impact it has.	The way the group used _____ was very successful because it showed the audience that..... .
B. Even Better If...			The group could improve further by adding ..... This would have shown the audience that..... .



### 1. Stage Positionings



<b>2. Using a Script</b>	
<b>Stage Directions</b>	<b>Entrance and Exit</b>
Instructions that tell actors where to move, how to stand, how to say their lines or what to do.	How an actor comes onto and leaves the stage. This must be done in character.
<b>3. Learning Lines</b>	
<b>Read and cover</b>	Read the line out loud, then cover the script with your hand and try and say the line without reading it. Repeat until you've learnt it
<b>Gesture/Action</b>	For each line you need to add a choreographed movement or gesture for each line
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<b>Call and Response</b>	A partner reads you one of your lines and you repeat it back to them without looking at the script until learnt. Then add the next line putting them together.

### 4. Rehearsal Techniques for Scripted Characters

<b>Hot seating</b>	An actor giving responses to questions in character. Helps to create a more developed and complex character. Must work alongside improvisation	
<b>Hot Seating Rules:</b>		
<b>A. Actor in the chair:</b> <ul style="list-style-type: none"> <li>• Answer questions in role</li> <li>• To use characterisation skills: Facial expressions, Vocal skills, and body language</li> <li>• Use improvisation skills</li> <li>• Move the drama on by providing new information</li> <li>• Being fully committed to your character throughout the whole performance</li> </ul>		<b>B. Actors asking the questions</b> <ul style="list-style-type: none"> <li>• Ask leading questions to move the drama on</li> <li>• Listen to what is said before so that the same question isn't asked twice</li> <li>• To use characterisation skills, facial expressions, vocal skills, and body language</li> </ul>
<b>C. Move the Drama on:</b> When performing the actor moves the drama on by introducing new information that the audience/actors don't know		<b>D. Leading questions:</b> When the actor asks questions which subtly prompts the respondent to answer in a particular way. For example, I heard last week that you and Charlotte had an argument, is this true?



1. Poetic Form	Definition
a) Form	The type of poem eg. free verse, dramatic monologue.
b) Stanza	A group of lines in a poem. A poetic paragraph.
d) Rhythm	The beat of a poem created by stressed and unstressed syllables
d) Syllable	A beat of spoken language. For example, water has two syllables- wa/ter.
e) Rhyme	Two words with the same sound, typically at the end of lines.
f) Alternate rhyme	When every other line rhymes.
2. Poetic Structure	Definition
a) Structure	The order of events and punctuation within the poem.
b) Tone	The mood of the writing. The feeling that the writer has created.
c) Enjambment	The continuation of one sentence onto the next line of poetry.
d) Caesura	A pause near the middle of a line created with punctuation.
e) Speaker	The voice of the poem or text. The person from whose point of view the poem or text is written.
3. Poetic forms	Definition
a) Free verse	Any form of poetry which does not rely on consistent patterns of rhyme. Sounds like natural speech.
b) Dramatic monologue	A poem written in the form of a speech which gives an insight into the speaker's history and thoughts.

4. Topic words	Definition
a) Culture	The behaviours, ideas and beliefs of particular people or society.
a) Non-Fiction	Writing that is informative or factual (e.g. newspaper articles, speeches, editorial opinion pieces, travel writing, memoirs, autobiographies, blogs, etc.).
b) Argue	When you give reasons and evidence in support of an idea, action or theory, usually with the intention of persuading others to share your view.
c) Viewpoint	The writer's way of looking at or thinking about something.
d) Intention	The purpose and reason for writing.
e) Article	A piece of writing in a newspaper or magazine.
f) Headline	The title of the article.
g) Subheading	Headings placed throughout a text to signpost content in the section underneath.
h) Compare	Examine two or more things to note similarities and differences.

5. Discourse markers	Example
a) Sequencing arguments	Firstly, Secondly, Additionally, etc.
b) Furthering arguments	Furthermore, Consequently, Moreover, etc.
c) Counter arguments	On the other hand, However, Alternatively, etc.
d) Concluding arguments	Ultimately, Finally, Overall, etc.



6. Language techniques	Definition	Example
a) Imagery	When descriptive language is used to create a clear picture.	A host, of <u>golden daffodils</u> ; <u>Beside</u> the <u>lake</u> , <u>beneath</u> the <u>trees</u> , <u>fluttering</u> and <u>dancing</u> in the <u>breeze</u> .
b) Metaphor	Comparing two things by describing one as the other.	Her eyes were diamonds shining in the sun
c) Extended metaphor	A metaphor that is developed or returned to over the course of a sentence, a paragraph, or even an entire text	In 'Not My Business,' the yam is an extended metaphor for human impulse to cling to life.
d) Alliteration	Using the same sound at the start of words near each other.	Peter Piper picked a peck of pickled peppers.
e) Anecdote	A short story about a real incident or person.	"I have a friend who wasn't given a promotion because she was female."
f) Facts	Something that is known or proven to be true. Used as evidence in a news article.	J.K. Rowling wrote seven Harry Potter books and has sold hundreds of millions of copies worldwide.
g) Statistics	Facts which are obtained by from analysing information expressed in numbers.	<u>73%</u> of people reported issues with their phone signal in recent months. <u>One in seven</u> young people reported an incident of bullying.
h) Rhetorical question	Questions used to make a point. They do not require an answer.	Why shouldn't they feel upset about this?
i) Triple	Using three words or phrases that act together for maximum impact.	This behaviour is abusive, cruel and illegal.
j) Opinions	A belief or judgment about something given by an expert on the subject.	Professor Sam Croft, from the European Oceans Institute, says that sea levels are rising more than we thought.
k) Imperative verb	Verb that is used to give an order or command.	<u>Clean</u> up after yourself.



1. Extended vocabulary	Definition	2. Poets	Additional reading		
a) Plosive	“b,” “p,” “t” and “d” sounds – which can be harsh, aggressive or shocking.	a) Raymond Antrobus	The Perseverance (2018)		
b) Anaphora	A repetition of words, phrases or clauses.	b) Rupi Kaur	Milk and Honey (2015)		
c) Oxymoron	A figure of speech in which two contradictory things are placed together. For example, “Seriously funny.”	c) Benjamin Zephaniah	Talking Turkeys (1995)		
d) Ambiguity	A word or phrase where there are two or more possible meanings and it is unclear which is the correct one.	d) Amanda Gorman	The Hill We Climb (2021)		
e) Blank verse	Poetry written in non-rhyming, ten syllable lines.	e) George the Poet	Search Party: A Collection of Poems (2015)		
f) Elegy	A form of poetry which is about the death of its subject.	f) Caleb Femi	Poor (2020)		
g) Parody	A comic imitation of another writer’s work.	g) Raman Mundair	A Choreographer’s Cartography (2007)		
h) Quatrain	A four line stanza.	<b>3. Extended writing</b>	<b>Tasks</b>		
i) Sestet	A six line stanza.			a) Research	Research a famous poet and create a fact file about them.
				b) Research	Research how a poet’s culture has impacted on their poetry.
				c) Writing	“We must not only read literature from other countries, but also written from different perspectives.” Write a persuasive speech to give to the class explaining your views on this statement.



**1a. Sustainability**

A sustainable product is one that can be produced without harming animals, humans, or the planet. Below are the main issues when it comes to food provenance and the environment.

**1b. Greenhouse gasses**

The food industry accounts for 26% of global greenhouse emissions.

**1c. Water use**

70% of our fresh water is used for growing crops

**1d. Waste**

1.3 Billion tons of food are wasted every year

**1e. Transportation**

Transporting food produces 19 million tonnes of CO2 annually – equivalent to around 5.5 million typical cars.

**1f. Caged hens**

Each cage holds 80 hens. These cages are not big enough for hens to carry out natural behaviours. Hens don't leave the cage until they go to slaughter.

**1g. Human rights**

Low incomes and wages and result in poor health, hunger and lack of education. Worldwide 152 million children are still in child labour. Of these, 70% are working in agriculture.

**2a. Food provenance**

The origins of our food such as where it has been grown, raised or caught. It provides us with an understanding of how our food has been produced and transported.

**2b. Organic produce**

Less use of chemical fertilizers or pesticides on crops. No genetically modified ingredients. Animals are not overcrowded and not given drugs to make them grow faster.



**2c. Fair trade foods**

Farmers receive a liveable wage, are provided with a safe working environment, and have access to education and health care.



**2e. RSPCA Assured and MSC labels**

These make it easy to recognise products from animals that have had a better life and that they have been sustainably sourced.



**3a. Manufacture/distribution**

Reduce processing and shipping, use local and seasonal produce, use recycled and biodegradable packaging, no animal testing.

**3b. Food miles/ Carbon footprint**

The distance the food or ingredients travel from production/growing to where it is consumed or sold. Transporting food long distances creates CO2, which pollutes our atmosphere.



**4a. Consumption (use)**

Buy organic, free range and fresh ingredients. Buy local and seasonal food. This will reduce the carbon footprint further. Choose foods with minimal or recyclable packaging (try and avoid single use plastics). Do not buy products that have been tested on animals.

**4b. Waste** Compost leftovers or use them to make new dishes, only buy what you need, do not serve very large portion sizes, use food that goes out of date sooner first. Recycle or reuse packaging.





**1a. Sustainability**

Describe what is meant by the term sustainability. Write a paragraph giving examples of how our food industry has a negative effect on our planet and explain how we can reduce/stop them.

**1b. Green house gasses**

How are green house gases causing global warming?

**1c. Water use**

What can we do to reduce the amount of water we use?

**1d. Waste**

How can we reduce the amount of waste that goes to landfill sites?

**1e. Transportation**

How can we reduce the pollution created from transporting our food around the world?

**1f. Caged hens**

What can we do as individuals to support animal rights? What products can we buy instead?

**1g. Human rights**

What can we do as individuals to support Human Rights? What products can we buy instead?

**2a. Food provenance**

Describe the journey a chicken takes from its source to our plates. What impact does this journey have on animals and the planet? How can these issues be addressed?

**2b. Organic produce**

What positive impacts do organic produce have on animal rights? What positive impacts do organic produce have on the environment?



**2c. Fair trade foods**

How does fair trade effect the lives of the farmers and the communities they live in?



**2e. RSPCA Assured and MSC labels**

Describe how the following foods can be sustainably sourced:

- Chicken
- Fish



**3a. Manufacture/distribution**

What impact does manufacture and distribution of food have on the environment? How can these be avoided?

**3b. Food miles/ Carbon footprint**

Write a paragraph explaining what food miles and carbon footprints are. How do they impact the environment? Suggest ways in which food miles and carbon footprints can be reduced.



**4a. Consumption (use)**

Think about the life cycle of a food you enjoy eating. How much impact on the environment has that food had? How can we reduce the negative impact of the food industry through the foods we choose to eat and buy?

**4b. Waste**

Describe the negative impact our food waste has on the environment? How can we reduce the amount of food we use and waste?





1. Key Vocabulary	
a) Desertification	When land becomes infertile and unable to grow crops
b) Development	The improvement standard of living and quality of life in a place
c) Inequality	The difference inequality of life between rich and poor
d) Kibera	An informal settlement in Kenya
e) Low pressure	When air rises, causing rain
f) High pressure	When air is sinking, preventing rain
g) Drought	Long periods of time without rain
h) Fairtrade	A programme which ensures better pay for farmers in poorer countries
i) Famine	Starvation caused by drought
j) Terrorism	Unlawful use of violence

2. Desertification
<ul style="list-style-type: none"> <li>Desertification is the process where fertile land becomes desert.</li> <li>Desertification is typically as a result of drought, deforestation or inappropriate agriculture and climate change.</li> <li>Civil war and conflict has led to an increase in desertification as people migrate and certain areas become overpopulated. This puts pressure on the land in terms of farming.</li> <li>The Sahel region is at risk.</li> </ul>



#### 4. Formation of Deserts



4. A region is officially classified as a desert when rainfall is under 250 mm per year.

3. Causes of Desertification	
a)	<b>Deforestation</b> - The local people cut down trees for firewood this has left the soil unprotected. As it is exposed, the wind and rain washes the nutrients away.
b)	<b>Drought</b> - A change in global climate has caused more droughts than normal
c)	<b>High pressure</b> - Strong high pressure systems (when air sinks to the ground) prevents warm wet air moving in and raining.
d)	A <b>lack of precipitation</b> (rain) causes the land to become dry and infertile.
e)	<b>Overgrazing</b> - Farmers try to make more money by overgrazing goats and cows
f)	<b>Population growth</b> - means more land is needed for food and more water is needed. This puts pressure on the land and soil.

1. Water evaporates from oceans. It forms clouds in the atmosphere.
2. Wind carries moist air inland. As it rises, it cools, condenses and causes rain.
3. The cool, dry air passes across to the other side of the mountain range. There is no moisture left in the air here which means it very rarely rains here.





5. Key Vocabulary	
a) Conflict	A serious disagreement
b) United Nations	An organisation whose purpose is to maintain peace and security
c) Refugees	A person who has been forced to leave their country to escape war etc.
d) LIC	Low income countries
e) Fairtrade	A program which ensures a fairer wage is paid to farmers
f) Contaminated	Has been exposed to a poison/pollutant
g) Bilharzia	A parasitic worm that lives in water
h) Guinea Worm	A disease caught by people drinking dirty water containing Guinea Worm larvae
i) Water borne disease	A disease that is caught by drinking contaminated water
j) Poverty	Having a low income and few possessions
k) Disease	An illness

**6. Water Issues**

As countries in Africa are some of the most poorest nations in the world, water is a significant issue. Deaths by drinking contaminated water are high. 345 million people (roughly 5x the amount of people living in the UK) do not have access to safe drinking water.



**CHOLERA:** Cholera can spread if food or water is contaminated with the stools of an infected person.

**HOOKWORM:** The larvae can infect people if their bare skin comes into contact with the soil.

**MALARIA:** Malaria is a tropical disease spread by mosquitoes. Mosquitoes are found in stagnant water.

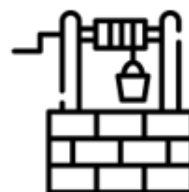
**7. Somalia Conflict**

The cause of the conflict is complex, however in 1991 the president was overthrown and the country was thrown into chaos. For 20 years there was no government. In 1992, 2010- 2012 a famine killed an estimated 500,000 people. In recent years, Somalia has been linked to Islamic terrorism and also to piracy.

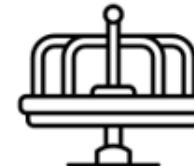


**8. Solutions to Water Issues**

- **Hand dug wells** - This is a well dug by hand, down to the water table.
- The most common way of getting water in LICs.
- Usually 1.2m in diameter to allow sufficient digging space.
- They can vary in depth from 5-20m (this depends on where the water table is).



- **Play pumps** - they are a roundabout. As the children play on the roundabout, the pump pumps water from underground to a tap.
- The roundabout can be installed in school playgrounds.



- **Rainwater harvesting** - people can collect rainwater from their roofs into a tank.
- This is suitable where there is no surface water or people cannot get groundwater due to the soil being too hard or salty.





**1) Demonstrate knowledge of locations, places, processes, environments and different scales**

- a) **Give** 3 reasons to explain why water becomes polluted
- b) **Explain** the formation of volcanoes in Africa
- c) **Discuss** ways that Fairtrade improves quality of life for people in Ghana

**2) Demonstrate geographical understanding of: concepts and how they are used in relation to places, environments and processes.**

- a) **Evaluate** the effect of the UN in the Somalia crisis
- b) **Assess** the impacts of the Somalia crisis on people
- c) **Evaluate** the ways that living can be improved in Kibera
- d) **Evaluate** whether Goma should focus on the spread of Ebola, or Mt Nyiragongo.

**3) Interpret, analyse and evaluate geographical information to make judgements**

- a) **Suggest** reasons why people may have to live in slums
- b) **Describe** how quality of life vary in this picture?
- c) Development around the world is unequal. **To what extent** to you agree with this statement?

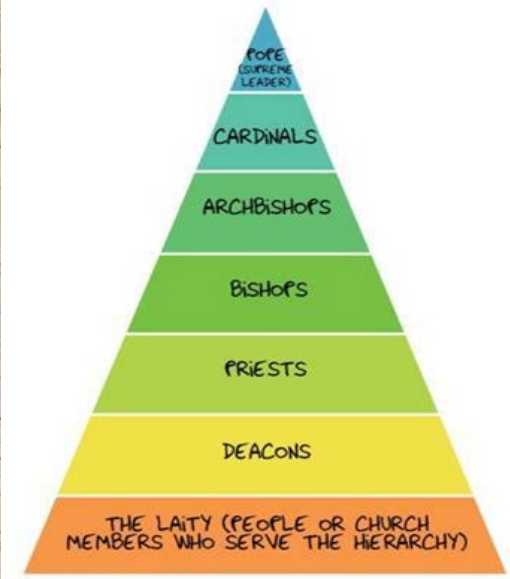


**4) Vocabulary**

a) <b>Larve</b>	An immature form of insect e.g grub
b) <b>Ebola</b>	A very fatal disease
c) <b>Topography</b>	Shape of the land
d) <b>Seismicity</b>	The frequency of earthquakes in a place
e) <b>Outbreak</b>	A sudden occurrence of something
f) <b>High pressure</b>	Sinking air, where no condensation and formation of clouds can occur
g) <b>Sustainable</b>	Meets people's needs without sacrificing needs of people in the future



Area	A. Role of the Church
<b>1. knowledge</b>	The Church produced and stored books (the printing press would not be invented until the 15 <sup>th</sup> Century. They copied religious texts and other important books, like medical textbooks. They had control over which knowledge would be preserved.
<b>2. education</b>	Most universities in the Middle Ages were run by the church who controlled the curriculum and what people could teach which limited progress in science.
<b>3. hospitals</b>	Monasteries and nunneries would offer basic medical care and prayers for the sick, they would offer somewhere for travellers to stay and would give alms to poor people.
<b>4. everyday life</b>	1 in every 20 people in the Middle Ages worked within the church. The Church regularly had festivals or 'Saint's Days', when everyday people did not have to work. Priests would perform ceremonies in people's daily lives, such as baptisms, marriages, hearing confession, burying the dead or giving the last rites to someone who was about to die.
<b>5. politics</b>	Many leading members of the Church advised the king. Even today, bishops still sit in the House of Lords. Kings wanted to please the church. The Church could raise an army in times of war.
<b>6. economics</b>	People were expected to farm the Church's land for free. They believed that God would punish them if they didn't. The Church owned a huge amount of land and collected a large amount of money and goods through the tithe (10% of income).



B. Key words	
<b>7. printing press:</b>	A device which allows books to be quickly and easily printed.
<b>8. alms</b>	Money, food or similar items which are given to poor people as a form of charity.
<b>9. hearing confession</b>	A ceremony where a Catholic priests listens to the sins of a Catholic and forgives them on behalf of God.
<b>10. last rites:</b>	A ceremony performed before a Catholic dies to help to prepare them for death.
<b>11. pilgrimage</b>	A journey which is extremely important for people of a certain religion to make.
<b>12. relic</b>	A historical object which often has religious important.
<b>13. House of Lords</b>	A group of important figures in England who help create laws.



**C. The Black Death**

<b>1. What was the Black Death?</b>	The Black Death killed over 1/3 of England’s population within two years of its arrival in 1348. There were two types of plague. The <b>bubonic plague</b> would start with <b>buboes</b> spreading across the victim’s body, followed by black patches of skin and vomiting. The <b>pneumonic plague</b> was spread by breath and attacked the lungs.
<b>2. What did medieval people think caused the Black Death?</b>	The bubonic plague was spread by fleas living on rats that were moving throughout Europe on merchants’ ships. Most medieval people thought <b>God</b> had sent the Black Death as a punishment for their sins. Others believed the alignment of the stars could explain it. Some people believed ‘ <b>miasma</b> ’ (bad air) was causing the disease.
<b>3. What were the medieval treatments?</b>	There was no real understanding of the cause, treatments were equally as far-fetched, e.g. drinking vinegar, bleeding, ‘sweating it out’, frogs on the buboes to absorb the poison. Some doctors realised that draining the buboes could help cure a victim too.



**D. Key Dates**

<b>4. 1347</b>	Black Death hits Venice (Italy).
<b>5. June, 1348</b>	Black Death arrived in England (Dorset).
<b>6. 1349</b>	Black Death leaves England having killed 30-40% of the population
<b>7. 1351</b>	Edward III introduces the <b>Statute of Labourers 1351</b> lowers the wages of peasants to pre-plague levels and restricts them from moving to look for a better job.
<b>8. March, 1381</b>	Peasants form an army and march on London demanding better wages and elect Wat Tyler as one of their leaders.
<b>9. 14 June, 1381</b>	Richard II, the 14 year old king, meets with the rebels and promised to dismiss some of his advisors and abolish serfdom. Some of the rebels broke into the Tower of London and beheaded the Archbishop of Canterbury.
<b>10. 15 June, 1381</b>	Wat Tyler, another leader of the rebels, refused to accept the deal. When he met with King Richard he was attacked and killed by one of the king’s advisors. The peasants went home after the king made further promises of reform

**E. Keywords**

<b>8. Black Death</b>	A plague that devastated Europe in the 14 <sup>th</sup> century
<b>9. Buboes</b>	Onion shaped swellings that were usually the first symptom of the black death.
<b>10. Miasma</b>	Theory that bad smelling air caused by poisonous cloud of ‘bad air’.
<b>11. Bubonic Plague</b>	The most common type of plague, named after the buboes.
<b>12. Pneumonic plague</b>	A more deadly type of plague that attacked the lungs.
<b>13. Flagellant</b>	A religious sect that punished themselves for sins by whipping their bodies.
<b>14. Peasant Revolt</b>	Major uprising across England in 1381.
<b>15. Yeoman</b>	A new class in medieval England; commoners who farmed their own land.
<b>16. Poll Tax</b>	Everyone (rich and poor) paid the same amount.



**AO1: Demonstrate knowledge and understanding of the key features of the periods studied.**

**1.1 Chronology**

- Create an A3 timeline of Thomas Beckett’s life and legacy.

**1.2 Historical Terminology**

- Define the following words: denomination, Anglican, Orthodox, Methodist, Presbyterian, Lutherans, hierarchy, tithe, eschatology, chancellor, merchant, barons, anoint, criminous clerk, excommunication, legate, catalyst, silk roads, conduit, prosperity, stagnation, monastic, caliphate, catalyst, putrid, social, economic, ordained

**1.3 Key Features (Historical Knowledge)**

- Identify FIVE turning points in the influence of the Church during the Middle Ages.

**AO2: Explain and analyse historical events and periods studied using historical concepts.**

**2.1 Change & Continuity**

- Make a list of FIVE things that changed and FIVE things that essentially stayed the same in the influence of the Church during the Middle Ages.

**2.2 Cause and Consequence**

- Explain THREE reasons for the murder of Thomas Beckett and then THREE consequences of the murder of Thomas Beckett.

**2.3 Significance**

- Create a table with two columns: ‘Evidence that suggests the Church was significant’ and ‘Evidence that suggests that the Church was not significant’. You need to come to a judgement using evidence, of whether the Church was or was not significant.

**AO3: Analyse, evaluate and use primary sources to make judgements.**

**3.1 Valid inferences**

- What can you infer from this image from the Toggenburg Bible in 1411 about the Black Death?

**3.2 Nature, Origin, Audience, Purpose**

- What is the nature, origin, audience and purpose of this source?

**3.3 Usefulness**

- What are the strengths and limitations of this source to a historian studying the Black Death?



**Image from the Toggenburg Bible, 1411, showing two people suffering from the Plague**

**AO4: Analyse, evaluate and make judgements about interpretations.**

**4.1 Identifying views**

- Explain the view given Peter Frankopan about the impact of the plague?

**4.2 Analysing interpretations**

- What evidence can you use to counter this interpretation?


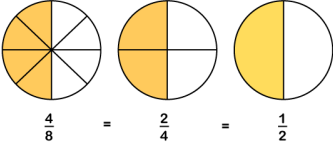
**4.3 Evaluating Interpretations**

- How far is his interpretation a valid view considering its origins and agenda?

“Indeed, statistical modelling based on these results even suggests that one of the effects of the plague was a substantial improvement in life expectancy.”

**Peter Frankopan, The Silk Roads: A New History of the World**


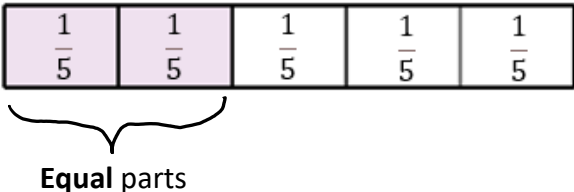
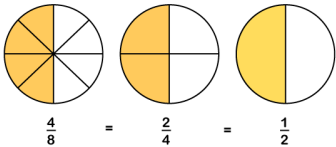
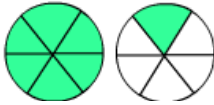
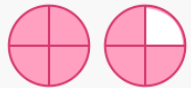
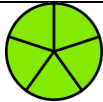


1. Keywords			2. Worked Examples	
Keyword	Definition	Example		
<b>a. Fraction</b>	A number that represents an <b>equal</b> part of a whole. It contains a numerator (top) and a denominator (bottom). The numerator is <i>divided</i> by the denominator.	$\frac{1}{4}$ means 1 out of 4 equal parts 	<b>a) Work out <math>\frac{1}{2} \div \frac{5}{7}</math></b> Find the reciprocal of the second fraction before multiplying by the first fraction $\frac{1}{2} \times \frac{7}{5} = \frac{7}{10}$	
<b>b. Equivalent Fractions</b>	Fractions that have the same value but look different.	 $\frac{4}{8} = \frac{2}{4} = \frac{1}{2}$	<b>b) Calculate <math>\frac{4}{6} \div 2</math></b> Find the reciprocal of the whole number and multiply by the fraction and simplify $\frac{4}{6} \times \frac{1}{2} = \frac{4}{12} = \frac{1}{3}$	
<b>c. Common Denominator</b>	When two or more fractions have the same denominator (bottom number)	$\frac{2}{9} + \frac{5}{9} = \frac{7}{9}$	<b>c) Evaluate <math>\frac{1}{2} + \frac{1}{3}</math></b> Find a common denominator before adding the fractions together $\frac{1}{2} \times \frac{3}{3} = \frac{3}{6} \quad \frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$ $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$	
<b>d. Sum</b>	Add	Find the sum of $\frac{5}{6}$ and $\frac{2}{6}$ means $\frac{5}{6} + \frac{2}{6}$		
<b>e. Product</b>	Multiply	Find the product of $\frac{5}{6}$ and $\frac{2}{6}$ means $\frac{5}{6} \times \frac{2}{6}$		
<b>f. Reciprocal</b>	1 divided by a given number, resulting in an inverted (upside-down) fraction	The reciprocal of 6 is $\frac{1}{6}$  The reciprocal of $\frac{4}{5}$ is $\frac{5}{4}$	<b>d) Work out <math>\frac{9}{11} - \frac{2}{11} - \frac{5}{11}</math></b>  $\frac{9 - 2 - 5}{11} = \frac{2}{11}$	
<b>Sparx Independent Practice Codes</b>				
M410, M671, M335, M835, M601, M931, M157, M197, M110, M265				




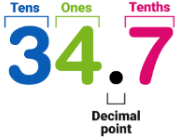
1. Keywords			2. Worked Examples	
Keyword	Definition	Example		
<b>a. Expression</b>	A statement written using numbers and letters. A letter represents a <b>variable</b> . A number in front of the variable is called the <b>coefficient</b> . The number on its own is called the <b>constant</b> .	$4x + 8$	a) Solve the equation $3y - 7 = 8$ $\begin{array}{l} +7 \quad   \quad 3y - 7 = 8 \quad   \quad +7 \\ \div 3 \quad   \quad 3y = 15 \quad   \quad \div 3 \\ \quad \quad   \quad y = 5 \quad   \quad \div 3 \end{array}$	
<b>b. Simplify an expression</b>	To simplify an expression, add or subtract the terms with the same variable.	$a + 2b + a + 3b = 2a + 5b$	b) Solve the inequality $4x + 3 < 27$ $\begin{array}{l} -3 \quad   \quad 4x + 3 < 27 \quad   \quad -3 \\ \div 4 \quad   \quad 4x < 24 \quad   \quad \div 4 \\ \quad \quad   \quad x < 6 \quad   \quad \div 4 \end{array}$	
<b>c. Expand</b>	To expand a bracket, multiply each term in the bracket by the term outside the bracket.	$2(3a + 5) = 6a + 10$	c) Here is a function machine 	
<b>d. Factorise</b>	The opposite of expanding. Place terms back into a bracket by dividing by the highest common factor.	$5x + 30 = 5(x + 6)$	Calculate the output when the input is 12 $12 \div 4 - 1 = 4$ Calculate the output when the input is 31 $(7 + 1) \times 4 = 32$	
<b>e. Inverse</b>	The opposite of a calculation or operation.	The inverse of multiplying is dividing		
<b>f. Equation</b>	A statement with an equal sign to show that two expressions are <b>equal</b> .	$2y + 5 = 11$		
<b>g. Identity</b>	An equation which is true all the time.	$2x \equiv x + x$		
<b>h. Formula</b>	A fact or rule written with mathematical symbols.	Area of a rectangle = length x width or $A = l \times w$		
<b>i. Inequality</b>	Less than $<$ Less than or equal to $\leq$ Greater than $>$ Greater than or equal to $\geq$	$9y + 1 < 19$		
<b>Sparx independent learning codes:</b> M175, M428, M417, M327, M208, M979, M795, M531, M949, M120, M237, M792, M100, M707, M509, M957, M118				



1. Keywords			2. Worked Examples	
Keyword	Definition	Example		
<b>a. Fraction</b>	A number that represents an <b>equal</b> part of a whole. It contains a numerator (top) and a denominator (bottom). The numerator is <i>divided</i> by the denominator.	$\frac{1}{4}$ means 1 out of 4 equal parts 	a) Shade $\frac{2}{5}$ of this shape 	
<b>b. Equivalent Fractions</b>	Fractions that have the same value but look different.	 $\frac{4}{8} = \frac{2}{4} = \frac{1}{2}$	b) Write $\frac{3}{2}$ as a mixed number: $\frac{3}{2} = \frac{2}{2} + \frac{1}{2}$ $\frac{2}{2} = 1$ $\frac{3}{2} = 1\frac{1}{2}$	
<b>c. Improper Fraction</b>	A fraction which has a greater numerator (top) than its denominator (bottom).	$\frac{7}{6}$ 	c) Write $2\frac{1}{4}$ as a mixed number Multiply the whole number by the denominator and add the numerator. The denominator stays the same.	
<b>d. Mixed Number</b>	A number represented by an integer and a fraction.	$1\frac{3}{4}$ 	$2\frac{1}{4} = \frac{2 \times 4 + 1}{4} = \frac{8 + 1}{4} = \frac{9}{4}$	
<b>e. Simplify</b>	Finding an equivalent fraction where the numbers are reduced as much as possible.	$\frac{4}{10} \div 2 = \frac{2}{5}$ $\frac{10}{10} \div 2 = \frac{5}{5}$		
<b>f. Whole</b>	A fraction with a numerator (top) equal to its denominator (bottom), which is equal to 1.	$\frac{5}{5} = 1$ 		
<b>Sparx Independent Learning Codes:</b> M158, M939, M410, M671, M335, M835, M601				

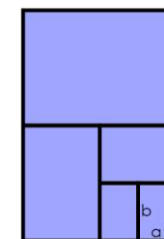
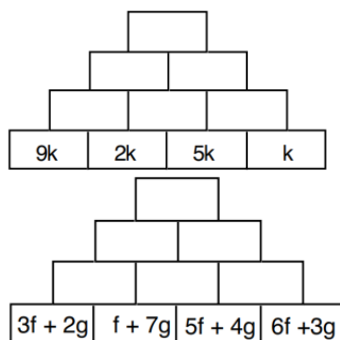




1. Keywords		2. Worked Examples
Keyword	Definition	Example
<b>a. Percent</b>	An amount expressed as a value out of, or per, 100.  Shown using the % symbol.	50% means 50 out of, or per, 100.  This can be written as $\frac{50}{100}$
<b>b. Fraction</b>	A number that represents an <b>equal</b> part of a whole. It contains a numerator (top) and a denominator (bottom). The numerator is <i>divided</i> by the denominator.	$\frac{1}{4}$ means 1 out of 4 equal parts  
<b>c. Decimal</b>	A non-integer (not a whole number), expressed using a decimal point	
<b>d. Decimal Multiplier</b>	A method used to calculate a percentage of an amount.  To use this method, convert (change) the percentage into a decimal by dividing by 100.	To calculate 15% of an amount, multiply the amount of 0.15
<b>e. Increase</b>	Making greater in amount, size, or value	Increase 50 by 20%
<b>f. Decrease</b>	Making smaller in amount, size, or value	Decrease 50 by 20%
<b>Sparx Independent Learning Codes</b> M264, M235, M695, M684, M437, M905, M476, M533, M528		<p>a) Convert 20% into a decimal</p> $20\% = \frac{20}{100} = 20 \div 100 = 0.2$ $20\% = 0.2$ <p>b) Convert 7% into a fraction</p> <p>7% means 7 out of 100</p> $7\% = \frac{7}{100}$ <p>c) Calculate 30% of £120 using the decimal multiplier method</p> $30 \div 100 = 0.3$ $0.3 \times 120 = 36$ $30\% \text{ of } \pounds 120 = \pounds 36$ <p>d) Increase 600 kg by 10% using the decimal multiplier method</p> $100\% + 10\% = 110\%$ $110 \div 100 = 1.1$ $1.1 \times 600 = 660 \text{ kg}$



<b>1. Mathematical Vocabulary</b>		<b>2. Mathematician Research</b>	
Define each of the following words. Describe how each of them is used in maths	a. Vinculum b. Camembert c. Abscissa	Who are they? What are they famous for? What contributions have they made to maths?	Zhang Heng
<b>3. Watch</b>	<a href="#">BBC Documentary The Story Of Maths 2 The Genius of the East YouTube via torchbrowser.com - YouTube</a> (50 mins 40 sec)		
<b>4. Thinking Mathematically</b>			
<p><b>a) Pyramids</b> Here are some algebra pyramids. To find the next term add the two bricks below it.</p> <p>i. Can you find out the top number?</p> <p>ii. What if the bottom right number was changed. How would this affect your answer?</p> <p>iii. Would some terms be impossible to get?</p> <p>iv. What if you included negative or decimal terms?</p> <p>v. Create more pyramids of your own with one, two or three terms or even brackets. Or even more layers.</p>		<p><b>b) Perimeter Expressions</b> Charlie took a sheet of paper and cut it in half. Then he cut one of those pieces in half, and repeated until he had five pieces altogether. He labelled the sides of the smallest rectangle, <math>a</math> for the shorter side and <math>b</math> for the longer side.</p> <p>i. Here is a shape that Charlie made by combining the largest and smallest rectangles: Check you agree that the perimeter is <math>10a+4b</math>.</p> <p>ii. Alison combined the largest and smallest rectangles in a different way. Her shape had perimeter <math>8a+6b</math>. Can you find how she might have done it?</p> <p>iii. Create some other shapes by combining two or more rectangles,</p> <p>iv. What's the largest perimeter you can make using all the pieces?</p> <p>v. What different shapes can you make? Explore further.</p>	
<p><b>c) Crossed Ends</b> On the 7 x 7 These crosses can be drawn on number grids of various sizes.</p> <p>i. Add opposite pairs of orange numbers (i.e. north + south, east + west).</p> <p>ii. Try adding different sized crosses.</p> <p>iii. Experiment with different sized grids, 8x8, 9x 9.</p> <p>iv. What do you notice?</p> <p>v. Can you explain your findings?</p>		<p><b>5. Short Problems</b></p> <p>a. Paul is 32 years old. In ten years' time, Paul's age will be the sum of the ages of his three sons. What do his sons' ages add up to now?</p> <p>b. Which of the following numbers could replace <math>x</math> so that the value of <math>\frac{x}{5}</math> lies between 3 and 4? 3.2, 14, 19</p> <p>c. Cheryl finds a bag containing 50 coins. The value of the coins is £1.81. If the bag only contains two-pence and five-pence coins, how many more five-pence coins are there than two-pence coins?</p> <p>d. We define <math>a\oplus b=ab+a+b</math>. If <math>3\oplus 5=2\oplus x</math>, what is the value of <math>x</math>?</p>	



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16		18	19	20	21
22				26	27	28
29	30		32	33	34	35
36	37	38	39	40	41	42



### 1) Time Signatures

A time signature is a symbol which we write at the beginning of a piece, after the clef which tells us how many beats there are in one bar.

Time signatures are made of two numbers, one on top of the other.

**3** The bottom number in a time signature tells you the type of beat we need to count in each bar.

**4** The number 4 represents a crotchet beat.

The top number tells us how many beats we need to count in each complete bar.

#### Bar lines

We draw vertical bar lines through the staff to divide the music up into complete bars.



### 2) Tempo

Tempo tells you the speed of the music. These are some of the words we use to describe tempo in music.

**Andante**  
Walking Pace

**Adagio**  
Leisurely

**Vivace**  
Lively

**Largo**  
Slow

**Allegro**  
Running pace

**Lento**  
Very slow

**Presto**  
Sprinting pace

**Rallentando (rall.)**  
gradually getting slower

**Accelerando (accel.)**  
gradually getting faster

♩ = 90  
90 Beats Per Minute (BPM)

### 3) Dynamics

Dynamics describes the volume of the music and tells you how loud or quiet the music is.

The dynamics can and often do change throughout a piece of music. This helps the music convey emotion.

These are some of the words we use to describe dynamics.

**Loud**

**<** *Crescendo*  
Getting gradually louder

**ff** *Fortissimo*  
Very loud

**f** *Forte*  
Loud

**mf** *Mezzoforte*  
Moderately loud

**mp** *Mezzopiano*  
Moderately soft

**p** *Piano*  
Soft

**pp** *Pianissimo*  
Very soft

**>** *Diminuendo*  
Getting gradually softer

**Quiet**

### 4) Performance Direction

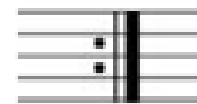
Symbols are often used in music to give information quickly. There are called 'Performance Directions' because they direct the performer about how to play the music.

Articulation - this tells the performer how the note should be played

Slur (or 'legato')		Smooth
Staccato		Short and spikey
Accent		Attack the start of the note

#### Repeats

Sometimes music is repeated. This is indicated in the music by a repeat symbol.



Single repeat mark: repeat the single bar.



Double repeat mark: repeat everything between the two repeat bars.



## 5) Instruments of the Orchestra

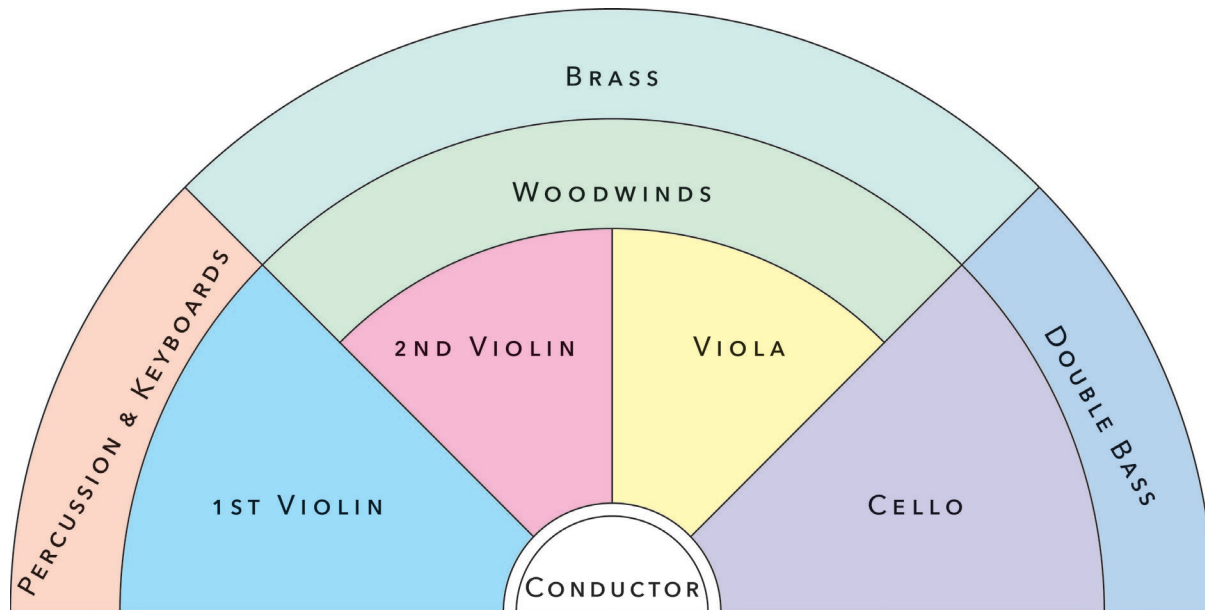
This is how the orchestra seating is arranged.

The conductor stands in the centre front, they lead the Orchestra, so the musicians all stay in time with one another. The conductor gives information about musical direction, such as tempo and dynamics of the music.

String instruments are placed at the front, such as violin, viola and cello.

Then behind them are Woodwind instruments, such as flute, clarinet and oboe.

Then Brass instruments are at the back, such as trumpet, trombone and tuba.



## 6) Describing Music Sentence Starters

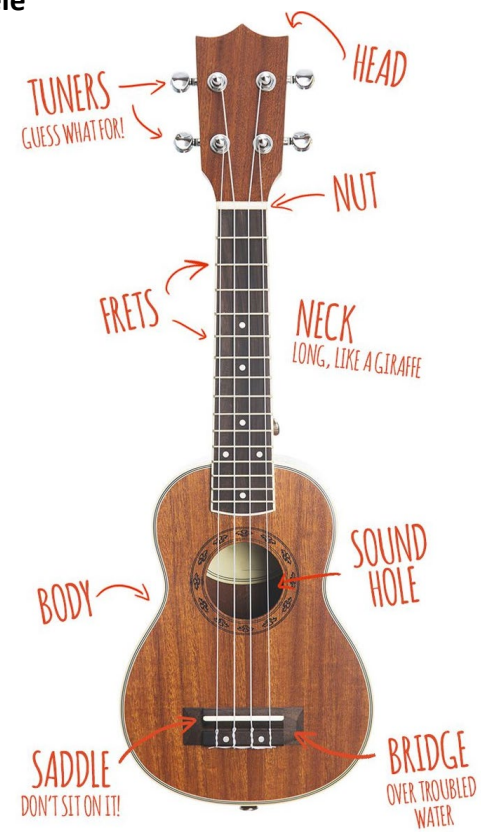
- At the start of the music...(Say something about the tempo, the emotion the music gives you or the dynamics of the music).
- The music starts with...(Say some of the instruments that play at the start of the music – is the instrument solo or playing with other instruments?)
- There is a (ascending or descending) melody line...(does it go up or down in pitch?).
- Next the music...(say what changes. Is it something in the Tempo, Dynamics, Instrumentation or Melody?).
- Is there a crescendo (gradually getting louder) or decrescendo (Gradually getting quieter) in the music at any point?
- The music ends by...(be descriptive about the end of the music. Does it end suddenly, does it get quieter or slower before it ends?)



### 1) Keywords and definitions

Strum	Brushing your fingers over several strings at the same time to create a sound.
Chord	2 or more notes played at the same time.
Chord Chart	A way of reading music which tells you which chords to play and for how many beats.
Bars	How written music is divided up to make it easier to read. In pop music there is 4 beats in each bar.
Beats	A measure of time in music. (Example: Count 4 beats then start playing the song).
Tempo	The speed of the music (Example: The tempo of the music was fast).
Frets	The space between the lines on the neck of a ukulele or guitar.
Tablature (TAB)	Another method of reading music for string instruments.

### 2) The Ukulele



### 3) Scale of C Major on the Ukulele using TAB

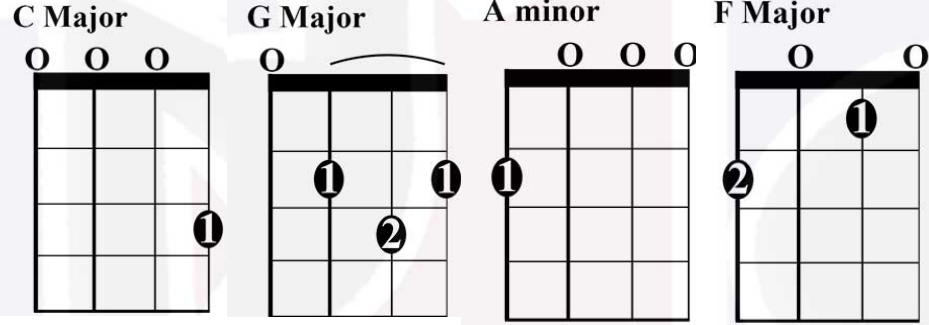
These lines represent the ukulele strings. G is the string closest to your face while A is the string closest to your feet.

These numbers represent the fret number you need to press down on that string.

The order you play them in is like reading – left to right. It doesn't matter which line they are on.



#### 4) Chords



#### 5) Chord Charts

A chord chart tells you the name of the chord (i.e. C) and then the number of beats it plays for using the / symbol. Each of these chords is played for 4 beats:

1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
<b>C///</b>	<b>G///</b>	<b>F///</b>	<b>Am///</b>
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
<b>C/G/</b>	<b>F/C/</b>	<b>F/Am/</b>	<b>C///</b>

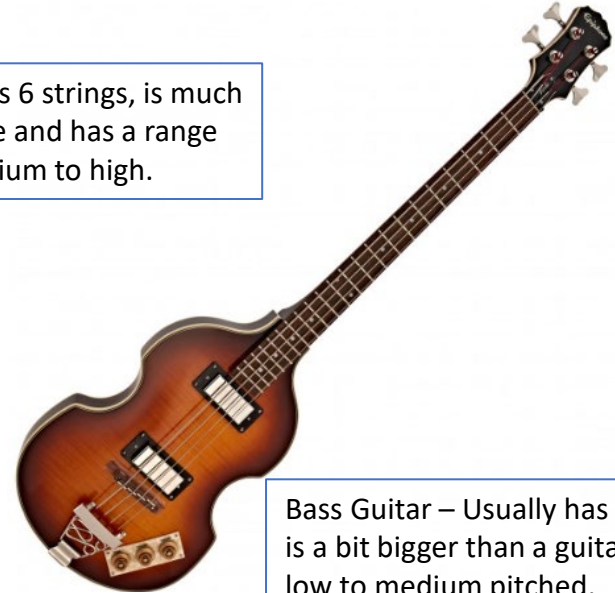
#### 6) String Instruments



Ukulele – Has 4 strings, is a small instrument and is high pitched.



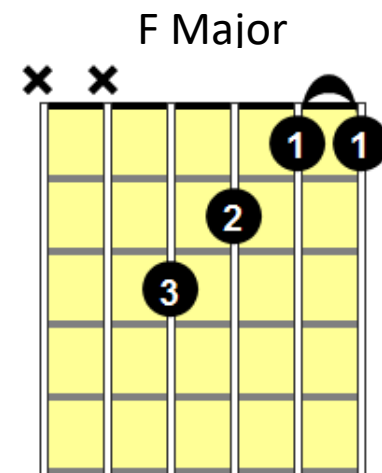
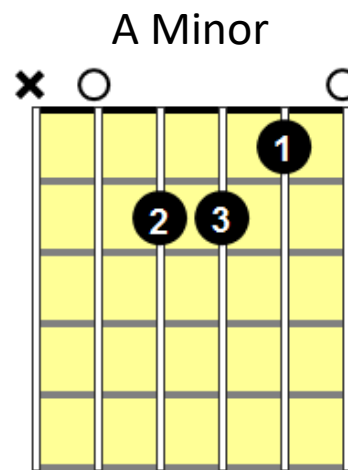
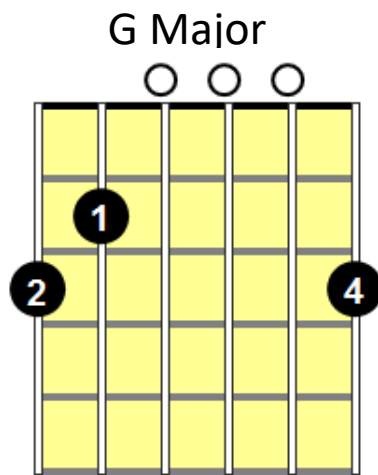
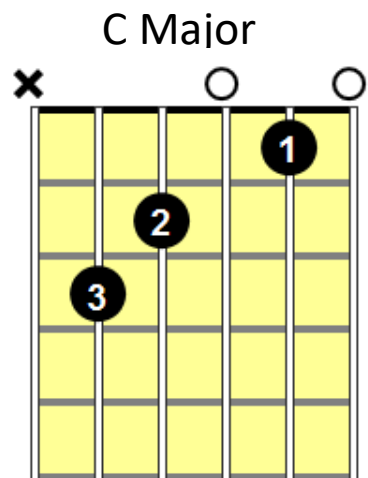
Acoustic Guitar – Has 6 strings, is much bigger than a ukulele and has a range of pitches from medium to high.



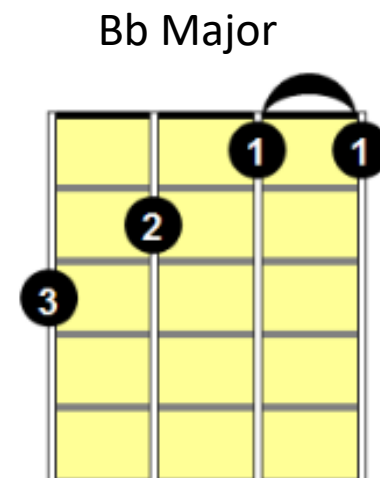
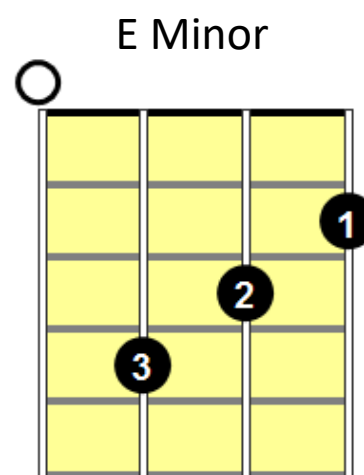
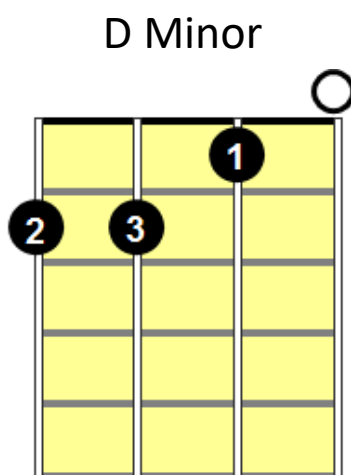
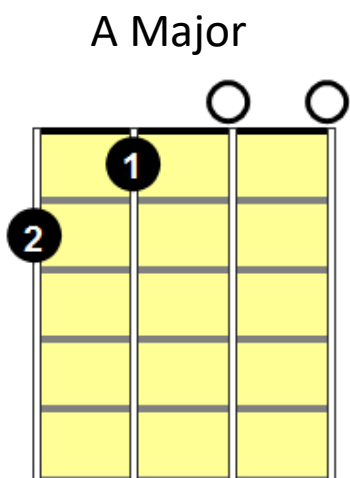
Bass Guitar – Usually has 4 strings, is a bit bigger than a guitar and is low to medium pitched.



1 – Chords on the Guitar

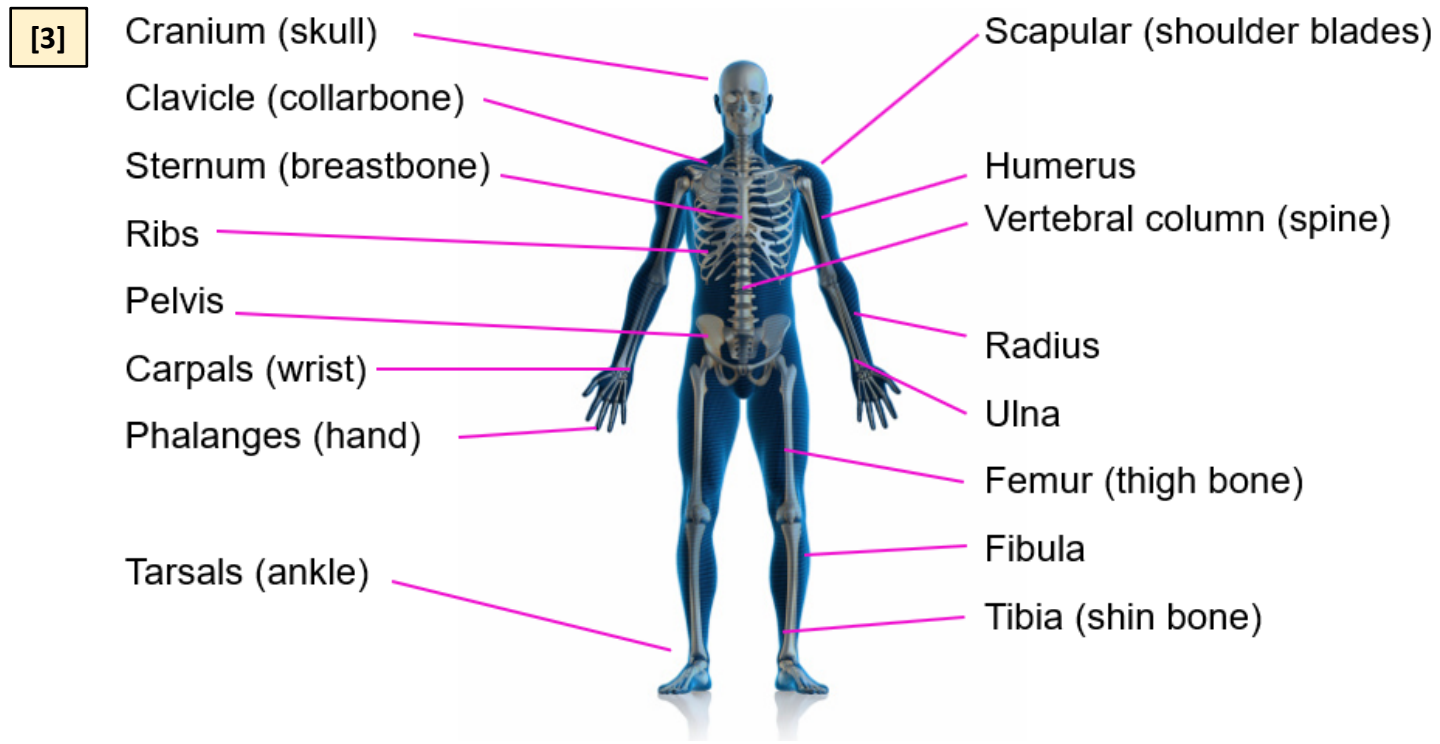


2 – Extension chords for the Ukulele





[1] Functions	[2] Types of Bones
<ul style="list-style-type: none"> <li>• Movement</li> <li>• Protection</li> <li>• Production</li> <li>• Shape</li> <li>• Support</li> <li>• Storage</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Long</b> – Femur, Humerus</li> <li>• <b>Short</b> – Carpals, Tarsals</li> <li>• <b>Flat</b> – Cranium, Sternum</li> <li>• <b>Irregular</b> – Vertebrae, Pelvis</li> <li>• <b>Sesamoid</b> – Patella (Knee cap)</li> </ul>







<b>Gymnastics</b>		<b>Fitness</b>	
<b>[4] Key Vocabulary</b>		<b>[7] Types of Training</b>	
<b>Apparatus</b>	The equipment on which gymnastics moves are performed, e.g. mats, beams, springboards etc.	<b>Interval</b>	A combination of short but very high-intensity bursts of speed linked with exercise combined with slow, recovery phases, repeated during one exercise session.
<b>Balances</b>	Moves that require the gymnast to hold their body still whilst performing an upright or inverted balance.	<b>Circuit</b>	A set of consecutive series and timed exercises performed one after the other with rest between each exercise.
<b>Aesthetically Pleasing</b>	A movement, balance or skill that is performed correctly and is good to look at.	<b>Fartlek</b>	Involves varying the speed, intensity and tempo of a run to have desired benefits on the body and improve fitness.
<b>Sequence</b>	Two or more skills which are performed together creating a different combination skill.	<b>Continuous</b>	A form of exercise that is performed at a consistent intensity throughout and does not have any rest periods within the session
<b>[5] Skills</b>		<b>Weight</b>	A form of training that looks at developing strength in the body by using a variety of different techniques and equipment.
		<b>Body Weight</b>	A form of training that looks at developing strength in the body by only using body weight as a resistance.
<b>Individual Balances</b>	<b>Paired Balances</b>	<b>Group Balances</b>	<b>Travel</b>
<b>[6] Performances</b>		<b>Plyometric</b>	A type of training that involves high pace and force of different muscles to generate power.
Gymnastic performances are given final scores based on the difficulty and execution of their routine.  <b>Difficulty (D score)</b> – the difficulty of the skills performed. Skills are rated from an A, which is the easiest, right through to H.  <b>Execution (E score)</b> – how well the skills are performed within the routine including features such as posture, shape and transitions.		<b>Flexibility</b>	A series of mobility exercises where a joint is stretched or moved to just beyond its point of resistance.



**Gymnastics**

<b>1 (a) Term</b>	<b>Definition</b>
<b>Actions</b>	A movement in gymnastics could be roll, jump, travel, spin, or balance
<b>Apparatus</b>	Equipment used in gymnastics- benches, mats, and spin boards
<b>Balance</b>	To remain still in a set position for 3 seconds
<b>Technical devices</b>	Cannon, Unison, Formations, and Musicality
<b>Extension</b>	Straightening limbs and/ or trunk
<b>Fluency</b>	Being able to move effortlessly and smooth with ease
<b>Levels</b>	Height at which you are performing e.g., low (close to the ground) high, (on tip toes)
<b>Components of Fitness</b>	Flexibility, Strength, Muscular Endurance, Coordination, Agility
<b>Matching</b>	Copying the same actions as your partner at the same time.
<b>Points</b>	Parts of your body in contact with the floor or apparatus
<b>Sequence</b>	Linking together multiple actions that can be repeated
<b>Travel</b>	Getting from point A to B using repeated movements.
<b>Aesthetic</b>	The performance or skill is pleasing to look at

**Multi-Skills**

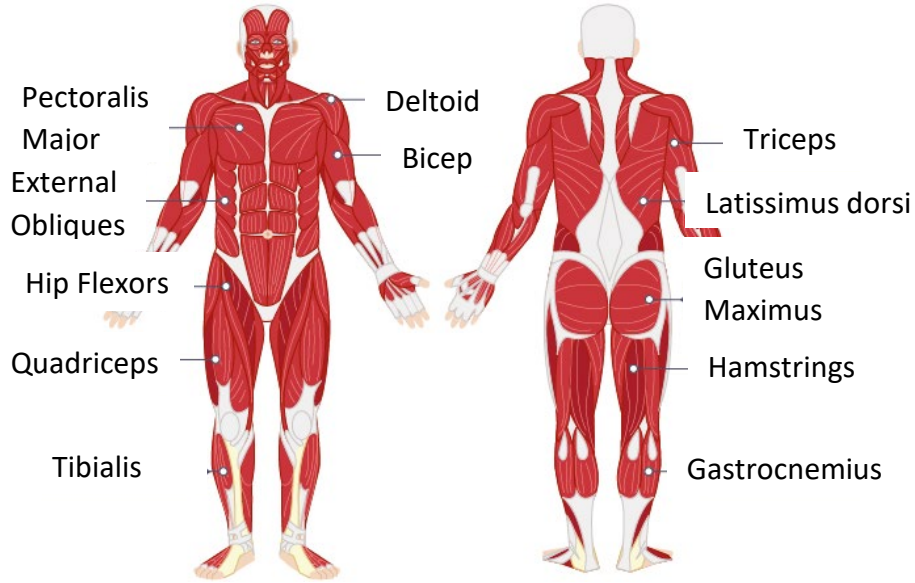
<b>1 (b) Term</b>	<b>Definition</b>
<b>Components of a session plan</b>	Warm-up (pulse raiser and stretches), main activity, Cool down.
<b>Basic Skills</b>	Movement, throwing, catching, passing, and striking
<b>Skills</b>	Ability to choose and perform the right techniques at the right time
<b>Technique</b>	The way you perform a specific skill to improve performance
<b>Spatial awareness</b>	Awareness of space in working area including yourself and others
<b>Tactics</b>	Outwitting an opponent
<b>Defence</b>	Action of preventing an opponent from scoring
<b>Attacking</b>	Action of attacking or engaging an opposing opponent or team with the objective of scoring points or goals.
<b>Officiating</b>	Referees and umpires ensure rules in sport are adhered to for fairness and safety
<b>Sportsmanship</b>	means playing within the rules and understanding and using sports etiquette
<b>Feedback</b>	Is information the performer/team receives about a skill or performance, includes strengths and areas of improvement.



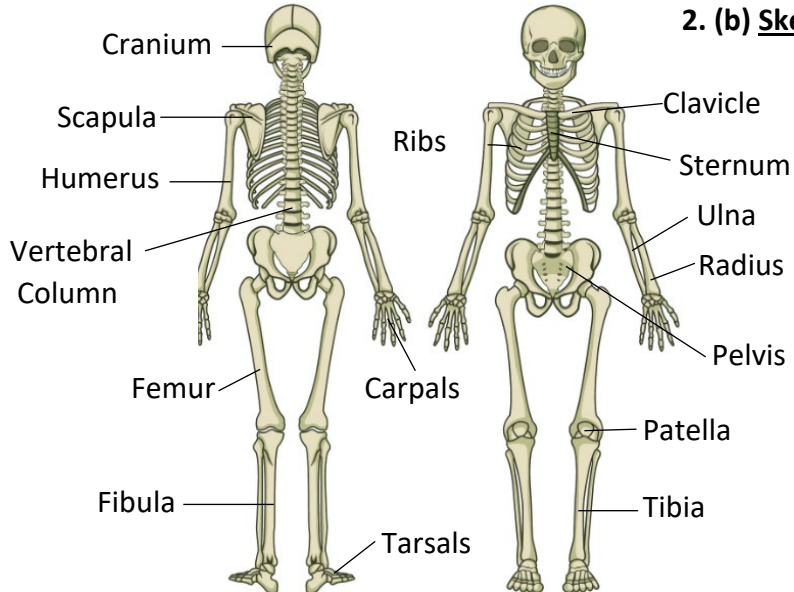
Physical Education

**2. (a) Muscular System**

**Understanding the Body and the Supporting Technology for Sport and Activity**



**2. (b) Skeletal System**



<b>3. <u>Body Systems</u></b>	<b><u>Description</u></b>
<b>Cardiovascular</b>	Consists of the heart and the blood vessels
<b>Respiratory</b>	Consists of the lungs and enables us to breathe
<b>Blood vessels</b>	Capillaries (gas exchange), veins (carries deoxygenated blood), and arteries (carries oxygenated blood)
<b>Ligament</b>	Elastic tissue that join bone to bone
<b>Tendon</b>	Elastic tissue that join muscle to bone
<b>4. <u>Components of Blood</u></b>	<b><u>Description</u></b>
<b>Red</b>	Carries oxygen and other nutrients to working muscles
<b>White</b>	Fights off infection, providing immunity to disease
<b>Platelets</b>	Group together over a wound to stop bleeding
<b>Plasma</b>	Watery fluid that makes blood liquid
<b>5. <u>Injuries</u></b>	<b><u>Description</u></b>
<b>Sprain</b>	When a ligament stretches too far
<b>Strain</b>	When a muscle/tendon stretches too far
<b>Bruising</b>	When blood vessels (capillaries) rupture or bleed
<b>Dislocation</b>	When the bones at a joint are displaced 'pops' out of place
<b>SALTAPS-treatment</b>	Stop, Ask, Look, Touch, Active, Passive and Strength
<b>PRICE- treatment</b>	Protect, Rest, Ice, Compression and Elevation



**A. Key Words**

1. **Nativity:** The story of Jesus' birth
2. **Miracle:** An event that defies natural law
3. **Parable:** A story with a special meaning
4. **Disciples:** Jesus' followers
5. **Messiah:** A King to save the Jews
6. **Crucifixion:** Being killed on the cross
7. **Resurrection:** Jesus coming back from the dead



**B. Baptism**

- Welcomes someone into the Christian church.
- Many believe it washes away sin.
- Infant and Adult Baptism.



Jesus' Baptism:

1. Jesus was baptised by John the Baptist.
2. Afterwards the heavens opened, and the holy spirit came down in the form of a dove.
3. Then a voice said from heaven, **"This is my own dear son with whom I am pleased."**

**C. Christian Festivals**

Advent: Starts four Sundays before Christmas which prepared Christians for Jesus' arrival.

Christmas: The birth of Christ



Epiphany: Baptism of Jesus

Lent: 40 days and nights. Where people give things up and try to become better people.

Easter: Celebration of Jesus' resurrection and new life.

Pentecost: Beginning of the Church when the Holy Spirit

**D. Good Samaritan**

*'You have heard that it was said, 'Love your friends, hate your enemies.' But now I tell you: love your enemies and pray for those who persecute you'* **Matthew 5:43-47**

Jesus taught his followers to: *'Love your neighbour as yourself'*. **Matthew 22:39**

Jesus was asked to confirm what he meant by the word 'neighbour'.

This is when he told the Parable of the Good Samaritan to explain that people should love everyone, including their enemies.

The first person to pass the injured man was a priest, who crossed the road and continued walking.

The second person to pass the injured man was a Levite, a priest's assistant. He also crossed the road and continued walking without helping the man.



The third person to come by was a Samaritan, a person from Samaria. The Samaritans were hated by the Jews. When the Samaritan saw the man, he took pity on him. He bandaged him and cleaned his wounds. He then put him on the back of his donkey and took him to an innkeeper, whom he paid to look after him.

**E. The Three Temptations**

After his baptism, Jesus went to the wilderness to think about and prepare for his ministry.

He spent forty days and forty nights in the desert where he was tempted on **three occasions** by the Devil.

- 1) Stone into bread
- 2) If he worshipped the devil he could have all of the kingdoms in the world
- 3) If you are the Son of God throw yourself off the highest point of the temple as the angels will catch you








**F. Zacchaeus**

He was a rich chief tax collector, who Jesus asked to stay with but people started grumbling because Jesus was going to the home of a sinner. However, Zacchaeus promised to give half his belongings to the poor and pay back four times as much to anyone he had cheated. Jesus concluded by saying **"The Son of Man came to seek and to save the lost."**

**G. Prodigal Son**

In the parable of the Prodigal Son, the father forgives his son for spending his inheritance when he returns and welcomes him home.



<p><b>A. Names for Jesus</b> </p> <ol style="list-style-type: none"> <li><b>Son of God:</b> Jesus had links to <b>God's power</b>, e.g., when performing <b>miracles</b>.</li> <li><b>Son of Man:</b> Jesus was <b>human</b>, he had emotions <b>and suffered</b> just like everyone else</li> <li><b>Messiah:</b> The <b>anointed one</b>. In many cultures it means King or Queen. It was seen to be <b>the one saving the Jews from evil</b>.</li> </ol>	<p><b>HOLY WEEK</b></p>  <p>Palm Sunday    Maundy Thursday    Good Friday    Easter Sunday</p>	<p><b>D. Judas agrees to betray Jesus (Mark 14: 10–26)</b> Judas went to the chief priests to betray Jesus. They promised Judas some money.</p> <p>Jesus and his disciples were celebrating the Passover meal together.</p> <p>Jesus made a shock announcement. He said that he would be betrayed by one of his disciples, <b>“the one who dips his bread in the dish with me”</b>. </p> <p>The disciples were shocked and anxious and said, <b>“Surely not me?”</b></p>	<p><b>E. Jesus and Pilate</b></p> <p>Pilate tried to find a solution. He offered the crowd to either release Jesus or Barabbas, a convicted murderer.</p> <p>However, Pilate's plan did not work because the Sanhedrin persuaded the crowd to ask for Barabbas to be released, instead of Jesus.</p> <p>Pilate did not want to damage his relationship with the Jewish leaders, so he gave in to the crowd and sent Jesus for crucifixion</p>
<p><b>B. Miracles</b></p> <p>An event or occurrence which goes against the laws of nature.</p> <p>Categories of Jesus' miracles</p> <p><b>Power of nature</b></p> <ul style="list-style-type: none"> <li>The calming of the storm</li> <li>The Feeding of the 5,000</li> </ul> <p><b>Power of Healing</b> </p> <ul style="list-style-type: none"> <li>The paralysed man</li> <li>Blind Bartimaeus</li> </ul> <p><b>Power over death</b></p> <ul style="list-style-type: none"> <li>Jairus daughter </li> <li>Lazarus</li> <li>Resurrection</li> </ul>	<p><b>C. Jesus cleanses the temple</b></p> <p>When Jesus and his disciples arrive in Jerusalem they go to the temple.</p> <p>It was customary for animals to be sacrificed. However, some of the traders were selling these animals for sacrifice at ten or 15 times their  usual price</p> <p>The temple also had its own currency, money had to be changed into the correct currency and the money changers charged an extremely large fee.</p> <p>Jesus was furious that people coming to worship God were taken advantage of. He reacted violently as he overturned the tables of the money changers and those selling doves. He said that his Father's house was to be a place of prayer, but that it had been made into a den of robbers.</p>	<p><b>F. Jesus before the Jewish Council (Mark 14: 53–65) The Sanhedrin was the supreme council of Jews which controlled civil and religio</b> </p> <p>Jesus was brought before the Sanhedrin accused of <b>blasphemy</b></p> <p>Many people gave false testimony against Jesus. The high priest stood up and questioned Jesus directly, which was against the rules of the court. He asked if he was the Messiah he replied <b>“I am.”</b></p> <p>Jesus explained his identity in his own terms, <b>“you will see the Son of Man sitting at the right hand of the Mighty One and coming on the clouds of heaven”</b></p>	<p><b>G. Crucifixion and Resurrection (Mark 16: 1–8)</b></p> <p>Jesus was crucified at Golgotha between two bandits with 'Jesus of Nazareth, King of the Jews.' On top of his cross</p> <p>After the sabbath Jesus' tomb was visited and found empty.</p> <p>A young man dressed in white was there. He told them that Jesus had risen and to tell the disciples, including Peter, that he would meet them in Galilee.</p>



**Challenge Tasks**

1. Create 10 true or false statements on today's topic
2. Transform your learning into a series of images using up to 5 words
3. Plan an alternative lesson about what we have learnt today
4. Construct a timeline showing your learning through today's lesson
5. Produce a summary of today's lesson – then reduce the number of words used to a single sentence or three bullet points
6. Turn today's learning outcomes into questions
7. Select 5 key terms that you have used today and create a summary using all of the terms
8. Create 5 questions your teacher might ask about today's learning
9. Use a thesaurus to add more ambitious vocabulary into your work
10. If today's lesson were an album or a newspaper heading, what would it be called? What songs would be on it?
11. Include three quotations / arguments to support your answer
12. Add a justified conclusion to your evaluative writing

**Research Challenge**

**Christianity**

- A. Research Christian festivals in greater detail
- B. Research holy week in more detail
- C. Research the different gospel accounts of Jesus' resurrection
- D. Research the different Christian festivals in more detail.

**Tricky Key Terms**

- E. What does 'incarnation' mean?
- F. What does 'atonement' mean?
- G. What does 'blasphemy' mean?
- H. What does 'crucifixion' mean?
- I. What does 'resurrection' mean?
- J. What does 'ascension' mean?
- K. What does 'salvation' mean?
- L. What is 'original sin'?



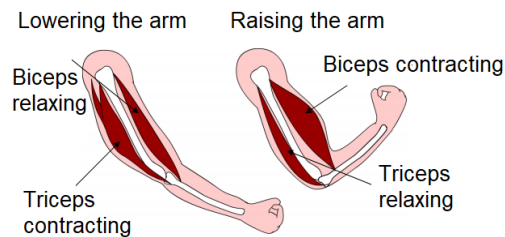
**Evaluation Challenge**

- I. 'The story of Jesus is true'. Why would someone agree and why would someone disagree?
- II. 'Jesus choose to enter Jerusalem at a time when he could create the greatest reaction'. Why would someone agree? Why would someone disagree?
- III. 'Jesus was not afraid to upset the religious order of the time to get his message across'. Why would someone agree? Why would someone disagree?
- IV. 'Judas is not fully responsible for Jesus' death'. Why would someone agree? Why would someone disagree?
- v. 'The different gospel stories of the resurrection undermine Christian belief in resurrection'. Why would some agree or disagree? disagree?<sup>44</sup>



(1) Key Word	Definition
a) Antagonistic muscle	A pair of muscles that act on a joint. As one contracts, the other relaxes.
b) Bone	Hard, rigid (stiff) tissue that makes up the skeleton.
c) Contract	To become shorter.
d) Joint	The connection between two bones in a skeleton.
e) Ligament	Tough tissue that joins two bones together.
f) Skeleton	The support structure for an organism.
g) Tendon	Tough tissue that connects a muscle to a bone.
h) Tissue	A group of similar cells that carry out the same function.

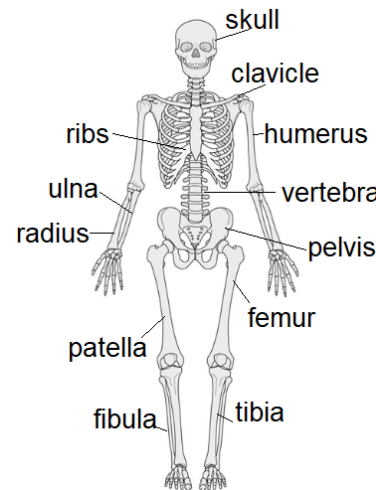
**(3) Antagonistic Muscles**



Muscles can only **pull**, not push. They work in pairs to make joints move. We call them 'antagonistic pairs'

To lift your arm, the biceps muscle contracts, and the triceps muscle relaxes. To lower your arm, the biceps relaxes and the triceps contracts.

**(2) The Skeleton**



The skeleton is made of many bones, held together by joints. The skeleton has four functions:

- movement – bones are attached to each other by flexible joints.
- protection of internal organs – the skull protects the brain and the rib cage protects the heart and lungs.
- support – without a spine we could not stay upright.
- produces blood cells – the bones in the skeleton produce red and white blood cells. These are made within the bone marrow (soft tissue inside the bones).

**(4) Joints and Movement**

The bones of the skeleton are held together by joints. There are three types of joint:

- immovable joints - skull
- ball and socket joints – shoulder
- hinge joints – knees and elbow

Muscles move joints in antagonistic pairs. Tendons connect muscles to bones. Ligaments connect the bones in joints.



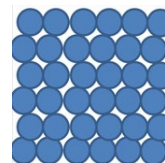
(1) Key Word	Definition
a) Atom	The smallest particle of an element that can exist.
b) Chromatography	A method of separating dissolved substances in a liquid.
c) Compound	A substance made of two different elements that have been chemically joined.
d) Compressed	Another word for squashed.
e) Condense	The change of state from a gas to a liquid
f) Element	A substance that is made from only one type of atom
g) Evaporate	The change of state from a liquid to a gas.
h) Matter	Matter is another word for substance, or 'stuff'.
i) Mixture	Two or more substances that are not chemically joined.
j) Particle	A very small bit of matter – (it can be a solid, liquid, or gas)
k) State	The word we use to describe whether something is a solid, liquid, or gas.

**(3) Changes of State**

A change of state is a **physical** change for example, a solid to a liquid. A physical change can be reversed and the particles remain unchanged.

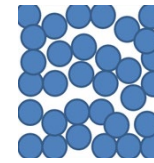


**(2) Solids, Liquids and Gases**



**Solid**

Particles are closely packed and held in a fixed position. Cannot be compressed. Have a definite shape and cannot flow. Least energy and vibrate in a fixed position.



**Liquid**

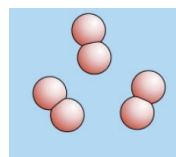
Particles are loosely packed and can slide over each other. Cannot be compressed. Fill the shape of the container. More energy and can flow.



**Gas**

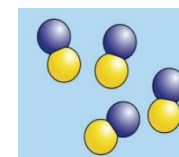
Particles are far apart and are free to move around. Can be compressed. Fill the shape of the container. Most energy and move quickly.

**(4) Elements, Compounds and Mixtures**



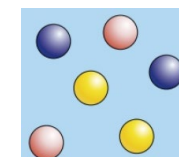
**Element**

An element is a substance that is made up of only one type of atom. All the atoms are the same.



**Compound**

A compound is made of two or more atoms that have been chemically joined. The atoms in a compound cannot be separated without a chemical reaction.



**Mixture**

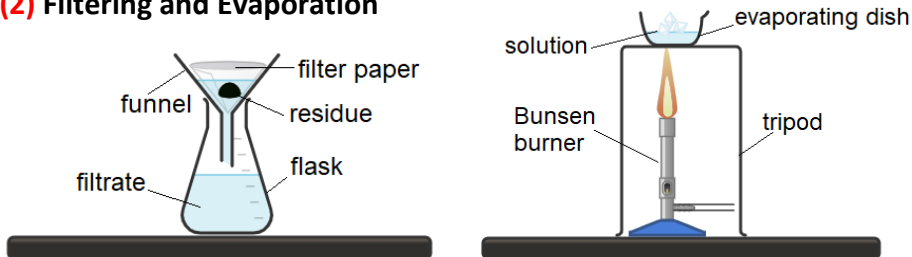
A mixture is made up of two or more atoms, or compounds that are not chemically joined. A mixture can be separated into different parts.



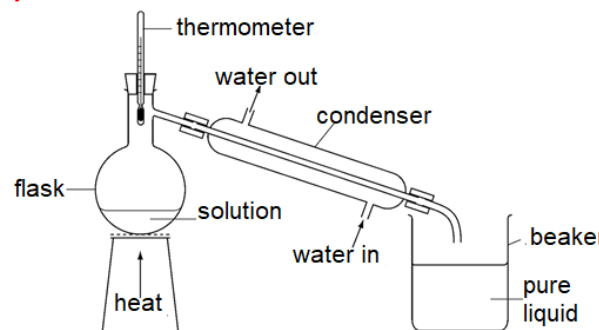


(1) Key Word	Definition
a) Boiling point (b.p.)	The temperature at which a liquid turns into a gas.
b) Chromatogram	The chromatography paper with the ink spots.
c) Chromatography	A method of separating a mixture of dissolved solids
d) Distillation	A method of separating two or more liquids by their boiling point.
e) Filter/Filtration	A method for separating an insoluble solid from a liquid (for example, sand from water)
f) Insoluble	A substance that will not dissolve
g) Pure	A substance that contains only one type of atom or compound.
h) Residue	The solid left after filtering.
i) Saturated	A solution that cannot dissolve any more solid.
j) Solubility	A measure of how easily a substance can dissolve.
k) Soluble	A substance that can be dissolved.
l) Solution	A Solvent with a solid dissolved into it.
m) Solvent	The liquid the solid is dissolved into.
The melting/freezing point of water is <b>0 °C</b> and the boiling point of water is <b>100 °C</b> .	

**(2) Filtering and Evaporation**



**(3) Distillation**

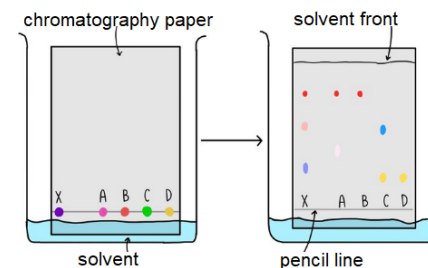


We can separate salt from sea water by distillation. Water has a lower boiling point than salt. It evaporates first and can be removed and then condensed again, to give pure water.

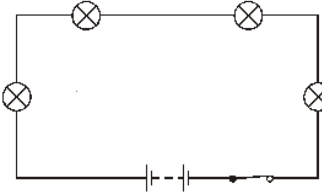
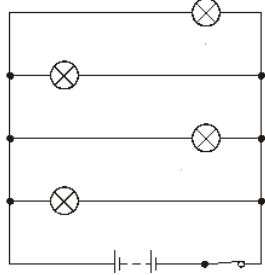
**(4) Chromatography**

Chromatography is a method of separating substances dissolved in liquids, for example the dyes in inks. Different dyes will move through the paper at different rates and separate out.

Some dyes are insoluble and will not move through the solvent.



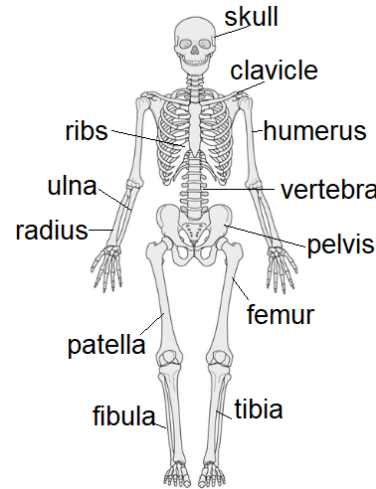


(1) Key Word	Definition		
a) Ammeter	Ammeters measure the current flowing through a circuit.		
b) Battery	A battery is made of two or more cells joined together in series.		
d) Component	Another word for 'part' – components are the different parts of a circuit.	<p data-bbox="1003 252 1218 284"><b>(2) Series Circuit</b></p>  <p data-bbox="1361 256 1995 373">In a <b>series circuit</b>, all the components are on the same loop (except for the voltmeter). If any component breaks, the whole circuit has broken.</p> <p data-bbox="1361 405 1973 480"><b>Current</b> is the <b>same</b> all through the circuit. The ammeter will read the same wherever it is.</p> <p data-bbox="1361 512 2024 587"><b>Voltage</b> is <b>split</b> between the components (parts) of the circuit. A voltmeter will give different readings.</p>	
e) Current	Current is the flow of electrons around a circuit. It is measured in amps (A).		
f) Parallel circuit	The components on a parallel circuit are on different loops.	<p data-bbox="1003 667 1249 699"><b>(3) Parallel Circuit</b></p>  <p data-bbox="1317 703 2007 820">In a <b>parallel circuit</b>, the components are on different loops. If one component breaks, the current can flow through the other loops of the circuit.</p> <p data-bbox="1317 852 1944 927"><b>Current</b> is <b>split</b> between the components of the circuit. The ammeter will give different readings.</p> <p data-bbox="1317 959 1921 1034"><b>Voltage</b> is the <b>same</b> all through the circuit. The voltmeter will read the same wherever it is</p>	
g) Potential difference (p.d.)	The amount of energy that moves from the batteries to the electrons that flow around the circuit. Potential difference is sometimes called voltage. It is measured in volts (V).	<p data-bbox="1003 1098 2029 1166"><b>(4) Resistance</b> is a measure of how easily current can flow around a circuit. The more components in a circuit, the higher the resistance.</p>	
h) Resistance	Resistance is a measure of how easy it is for current to flow around a circuit. It is measured in ohms ( $\Omega$ )	<p data-bbox="1003 1203 1771 1235">We use this equation to calculate the resistance in a circuit.</p>	
i) Series circuit	The components on a series circuit are on the same loop.	<p data-bbox="1451 1278 1570 1310" style="text-align: center;"><b><math>R = V \div I</math></b></p> <p data-bbox="1285 1347 1733 1378" style="text-align: center;">resistance = voltage <math>\div</math> current</p>	
j) Voltmeter	Voltmeters measure the potential difference (voltage) in a circuit.		



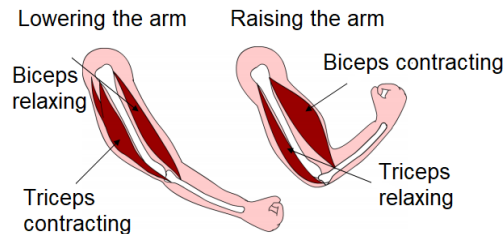
(1) Key Word	Match the Definitions to Key words
a) Antagonistic muscle	Hard, rigid (stiff) tissue that makes up the skeleton.
b) Bone	Tough tissue that connects a muscle to a bone.
c) Contract	The connection between two bones in a skeleton.
d) Joint	A group of similar cells that carry out the same function.
e) Ligament	To become shorter.
f) Skeleton	A pair of muscles that act on a joint. As one contracts, the other relaxes.
g) Tendon	Tough tissue that joins two bones together.
h) Tissue	The support structure for an organism.

**(2) The Skeleton**



- a) State the function of the skeleton.
- b) What are bones primarily made from?
- c) Why is it important for children to have a dairy rich diet?
- d) Give an example of a bone that protects vital organs and state which organ(s) it protects.
- e) What is found in the middle of bones?
- f) What does the substance found in bones do?
- g) What is attached to bones to allow free movement and how are they attached to bones?

**(3) Antagonistic Muscles**



- a) Explain, in detail, what is meant by the term antagonistic muscles.
- b) Give an example of antagonistic muscles and explain how they work together to carry out a particular function.

**(4) Joints and Movement**

- a) Name the different types of joint and give examples of where they are found.
- b) What is the function of cartilage in the joint?
- c) What is a tendon? Why is it an important part of a joint?
- d) Explain why arthritis in joint causes pain.
- e) Why is there fluid between the cartilage of 2 bones in a joint?
- f) What is the function of a ligament? Why is it an important part of a joint?



(1) Key Word	Match the Definitions to Key Words
a) Atom	The word we use to describe whether something is a solid, liquid, or gas.
b) Chromatography	A very small bit of matter – (it can be a solid, liquid, or gas)
c) Compound	Matter is another word for substance, or 'stuff'.
d) Compressed	The change of state from a gas to a liquid
e) Condense	The change of state from a liquid to a gas.
f) Element	Two or more substances that are not chemically joined.
g) Evaporate	Another word for squashed.
h) Matter	The smallest particle of an element that can exist.
i) Mixture	A method of separating dissolved substances in a liquid.
j) Particle	A substance that is made from only one type of atom
k) State	A substance made of two different elements that have been chemically joined.

**(3) Changes of State**

a) Describe the changes in the arrangements of particles as they go from a solid, to liquid, to gas.

```

    graph LR
      Solid[Solid] -- melt --> Liquid[Liquid]
      Liquid -- freeze --> Solid
      Liquid -- evaporate --> Gas[Gas]
      Gas -- condense --> Liquid
  
```

**(2) Solids, Liquids and Gases**

**Solid**

a) Describe the arrangement of particles in a solid  
b) Describe the motion of particles in a solid  
c) Are solids compressible? Explain your answer.

**Liquid**

d) Describe the arrangement of particles in a liquid  
e) Describe the motion of particles in a liquid  
f) Are liquids compressible? Explain your answer.

**Gas**

g) Describe the arrangement of particles in a gas.  
h) Describe the motion of particles in a gas.  
i) Are gasses compressible? Explain your answer.

**(4) Elements, Compounds and Mixtures**

**Element**

a) Give the definition of element.  
b) Some elements, like oxygen, exist as 2 atoms bonded together (e.g. O<sub>2</sub>). Why does this happen?

**Compound**

c) State the definition of compound.  
d) What holds the atoms together in a compound?

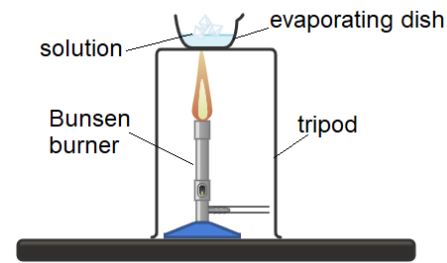
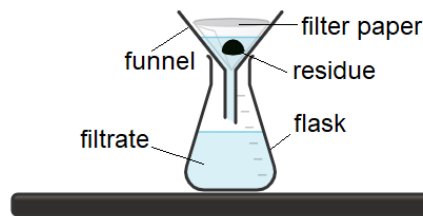
**Mixture**

e) State the definition of mixture.  
f) You have been given a mixture of sand and salt water. Write a method of how you could separate the different components of the mixture.

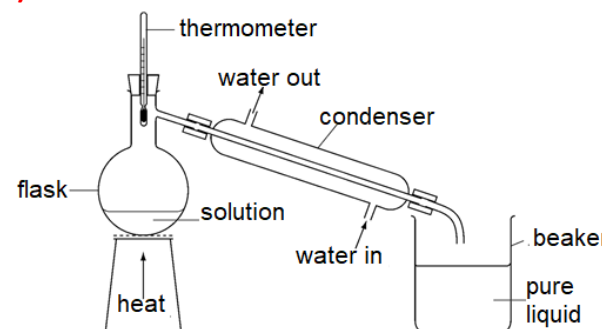


(1) Key Word	Match the Definitions to Key Words.
a) Boiling point (b.p.)	A method for separating an insoluble solid from a liquid (for example, sand from water)
b) Chromatogram	The solid left after filtering.
c) Chromatography	The liquid the solid is dissolved into.
d) Distillation	A measure of how easily a substance can dissolve.
e) Filter/Filtration	A substance that contains only one type of atom or compound.
f) Insoluble	The temperature at which a liquid turns into a gas.
g) Pure	A Solvent with a solid dissolved into it.
h) Residue	A substance that can be dissolved.
i) Saturated	A method of separating two or more liquids by their boiling point.
j) Solubility	The chromatography paper with the ink spots.
k) Soluble	A solution that cannot dissolve any more solid.
l) Solution	A method of separating a mixture of dissolved solids
m) Solvent	A substance that will not dissolve
a) Draw a graph to show the heating curve of water through the changes of state melting and heating.	

**(2) Filtering and Evaporation**



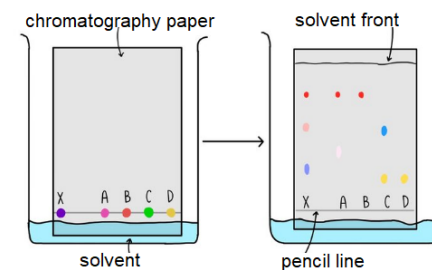
**(3) Distillation**



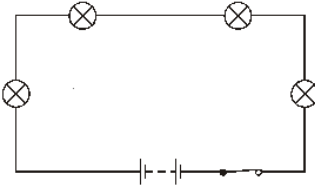
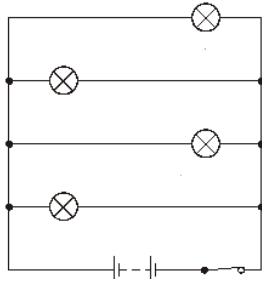
- a) Describe in detail, the process of distillation.
- b) Give an industrial use of distillation.
- c) What change of state happens in the condenser? State what happens in terms of arrangement of particles.

**(4) Chromatography**

- a) Describe, in detail, the process of chromatography.
- b) Give an industrial use of chromatography.
- c) Explain why the spots move up the paper at different rates.
- d) How can chromatography be used to determine what is in a mixture?





<b>(1) Key Word</b>	<b>Match the definitions to the key words</b>	<p><b>(2) Series Circuit</b></p>  <p>a) State what would happen to the bulbs if a battery with a lower potential difference was used.</p> <p>b) What will happen to the bulbs if you use 2 batteries in the circuit but carefully unscrewed one of the bulbs from its holder?</p> <p>c) What is a coulomb?</p> <p>d) What causes the coulombs to flow in the circuit?</p>
a) Ammeter	A battery is made of two or more cells joined together in series.	
b) Battery	Resistance is a measure of how easy it is for current to flow around a circuit. It is measured in ohms ( $\Omega$ )	
d) Component	The amount of energy that moves from the batteries to the electrons that flow around the circuit. Potential difference is sometimes called voltage. It is measured in volts (V).	
e) Current	The components on a series circuit are on the same loop.	
f) Parallel circuit	Ammeters measure the current flowing through a circuit.	
g) Potential difference (p.d.)	Voltmeters measure the potential difference (voltage) in a circuit.	
h) Resistance	Current is the flow of electrons around a circuit. It is measured in amps (A).	
i) Series circuit	The components on a parallel circuit are on different loops.	<p><b>(3) Parallel Circuit</b></p>  <p>a) What is the rule for current in a parallel circuit?</p> <p>b) In the circuit to the right, the bulb on the first loop of the circuit breaks. What happens to the rest of the bulbs in the circuit? Why does this happen?</p> <p>c) The current next to the battery is measured as 8 amps. All of the bulbs are identical. What would you expect the current to be down each branch of the circuit? Explain your answer.</p>
j) Voltmeter	Another word for 'part' – components are the different parts of a circuit.	



Module 3: Unit 1	<b>1. ¿Qué estudias?</b>	<b>What do you study?</b>
	2. Estudio...	I study...
	3. ciencias	science
	4. dibujo	art
	5. educación física	PE
	6. español	Spanish
	7. francés	French
	8. geografía	geography
	9. historia	history
	10. informática	ICT
	11. inglés	English
	12. matemáticas	maths
	13. música	music
	14. religion	RE
	15. teatro	drama
	16. tecnología	technology
	<b>17. ¿Cuál es tu día favorito?</b>	<b>What is your favourite day?</b>
	18. Mi día favorito es el lunes/ el martes.	My favourite day is Monday/Tuesday.
	19. Los lunes/martes estudio...	On Mondays/Tuesdays I study...
	20. ¿Por qué?	Why?
	21. Porque...	Because...
	22. por la mañana	in the morning
	23. por la tarde	in the afternoon
	24. estudiamos	we study
	25. no estudio	I don't study

Module 3: Unit 2	<b>1. Opiniones</b>	<b>Opinions</b>
	2. ¿Te gusta el dibujo?	Do you like art?
	3. Sí, me gusta (mucho) el dibujo.	Yes, I like art (a lot).
	4. No, no me gusta (nada) el dibujo.	No, I don't like art (at all).
	5. ¿Te gustan las ciencias?	Do you like science?
	6. Sí, me encantan las ciencias.	Yes, I love science.
	7. aburrido/a	boring
	8. difícil	difficult

Module 3: Unit 2	9. divertido/a	funny
	10. fácil	easy
	11. importante	important
	12. interesante	interesting
	13. práctico/a	practical
	14. útil	useful
	15. Los profesores	Teachers
	16. El profesor/La profesora es...	The teacher is...
	17. paciente	patient
Module 3: Unit 3	18. raro/a	odd
	19. severo/a	strict
	<b>1. ¿Qué hay en tu insti?</b>	<b>What is there in your school?</b>
	2. En mi insti hay...	In my school, there is...
	3. un campo de fútbol	a football field
	4. un comedor	a dining hall
	5. un gimnasio	a gymnasium
	6. un patio	a playground
	7. una biblioteca	a library
	8. una clase de informática	an ICT room
	9. una piscina	a swimming pool
	10. unos laboratorios	some laboratories
	11. unas clases	some classrooms
	12. No hay piscina.	There isn't a swimming pool.
	<b>13. ¿Cómo es tu insti?</b>	<b>What's your school like?</b>
	14. Es...	It's...
	15. antiguo/a	old
	16. bonito/a	nice
	17. bueno/a	good
	18. feo/a	ugly
	19. grande	big
	20. horrible	horrible
21. moderno/a	modern	
22. pequeño/a	small	



Module 3 : Unit 4	1. ¿Qué haces durante el recreo?	What do you do during breaks?
	2. Como...	I eat...
	3. un bocadillo	a sandwich
	4. unos caramelos	some sweets
	5. chicle	chewing gum
	6. una chocolatina	a chocolate bar
	7. fruta	fruit
	8. unas patatas fritas	some crisps
	9. Bebo...	I drink...
	10. agua	water
	11. un refresco	a fizzy drink
	12. un zumo	a juice
	13. Leo mis SMS.	I read my text messages.
	14. Escribo SMS.	I write text messages.
	15. Nunca hago los deberes.	I never do homework.

High frequency language	2. a veces	sometimes
	3. normalmente	normally
	4. primero	first
	5. luego	then
	6. algo	something
	7. donde	where
	8. hay	there is/there are
	9. o	or
	10. pero	but
	11. ¿Por qué?	Why?
	12. porque	because
	13. también	also, too
	14. tampoco	nor/neither
	15. y	and

Gramática - Present Tense Verb Endings					
ar verbs – hablar – to speak		er verbs – comer – to eat		ir verbs - escribir	
hablo	I speak	como	I eat	escribo	I write
hablas	you speak	comes	you eat	escribes	you write
habla	he/she/it speaks	come	he/she/it eats	escribe	he/she/it writes
hablamos	we speak	comemos	we eat	escribimos	we write
habláis	you(pl) speak	coméis	you (pl) eat	escribís	you (pl) write
hablan	they speak	comen	they eat	escriben	they write

Gramática - Adjectives:				
Adjectives describe nouns. Their endings change to agree with the noun they describe. Adjectives fall into three main groups. The endings for each group work like this.				
	Singular		Plural	
	Masc	Fem	Masc	Fem
ending in -o/-a	divertido	divertida	divertidos	divertidas
ending in -e	importante	importante	importantes	importantes
ending in a consonant	útil	útil	útiles	útiles

Gramática – Verb and Adjective agreement
When you give your opinion about subjects, you need to check <u>four</u> things:
1. that you use the correct form of <b>gustar/encantar</b> : me gusta/me gustan
2. that you use the correct <b>definite article</b> : <b>el/la/los/las</b>
3. that you use the correct form of the verb <b>ser</b> : es/son
4. that your adjectives <b>agree</b> in number and gender: aburrido/aburrida/aburridos/aburridas





Module 4: Unit 1	<b>1. ¿Cuántas personas hay en tu familia?</b>	<b>How many people are there in your family?</b>
	2. En mi familia hay...personas.	In my family, there are... people.
	3. mis padres	my parents
	4. mi madre	my mother
	5. mi padre	my father
	6. mi abuelo	my grandfather
	7. mi abuela	my grandmother
	8. mi bisabuela	my great-grandmother
	9. mi tío	my uncle
	10. mi tía	my aunt
	11. mis primos	my cousins
	12. ¿Cómo se llama tu madre?	What is your mother called?
	13. Mi madre se llama...	My mother is called...
	14. ¿Cómo se llaman tus primos?	What are your cousins called?
	15. Mis primos se llaman... y...	My cousins are called... and...
	16. su hermano	his/her brother
	17. sus hermanos	his/her brothers and sisters
	18. mis amigos	my friends
	19. mi mejor amigo/a	my best friend
	20. su mejor amigo/a	his/her best friend
	<b>Los números 20 – 100</b>	<b>Numbers 20 – 100</b>
	veinte	20
	treinta	30
	cuarenta	40
	cincuenta	50
	sesenta	60
	setenta	70
	ochenta	80
	noventa	90
	cien	100

Module 4: Unit 2	<b>1. ¿De qué color tienes los ojos?</b>	<b>What colour are your eyes?</b>
	2. Tengo los ojos...	I have... eyes.
	3. azules	blue
	4. grises	grey
	5. marrones	brown
	6. verdes	green
	7. Llevo gafas.	I wear glasses.
	<b>8. ¿Cómo tienes el pelo?</b>	<b>What's your hair like?</b>
	9. Tengo el pelo...	I have... hair.
	10. castaño	brown
	11. negro	black
	12. rubio	blond
	13. azul	blue
	14. liso	straight
	15. rizado	curly
	16. largo	long
	17. corto	short
	18. Soy pelirrojo/a.	I am a redhead.
	19. Soy calvo.	I am bald.

Module 4: Unit 3	<b>1. ¿Cómo es?</b>	<b>What is he/she like?</b>
	2. Es...	He/She is...
	3. No es muy...	He/She isn't very...
	4. alto/a	tall
	5. bajo/a	short
	6. delgado/a	slim
	7. gordo/a	fat
	8. guapo/a	good-looking
	9. inteligente	intelligent
	10. joven	young
	11. viejo/a	old
	12. Tiene pecas.	He/She has freckles.
	13. Tiene barba.	He has a beard.



Module 4: Unit 4	<b>¿Cómo es tu casa o tu piso?</b>	<b>What is your house or flat look like?</b>
	Vivo en...	I live in...
	una casa	a house
	un piso	a flat
	antiguo/a	old
	bonito/a	nice
	cómodo/a	comfortable
	grande	big
	moderno/a	modern
	pequeño/a	small
	¿Dónde está?	Where is it?
	Está en...	It is in...
	el campo	the countryside
	la costa	the coast
	una ciudad	a town
	el desierto	the desert
	la montaña	the mountains
	un pueblo	a village
	el norte	the north
	el sur	the south
el este	the east	
el oeste	the west	
el centro	the centre	

High Frequency Language	<b>Palabras muy frecuentes</b>	<b>High-frequency words</b>
	además	also, in addition
	bastante	quite
	porque	because
	muy	very
	¿Quién...?	Who?
	un poco	a bit
	mi/mis	my
	tu/tus	your
	su/sus	his/her

<b>Gramática – Ser – to be</b> When you are describing someone, you use the verb “ser”.		<b>Examples</b>  Soy pelirrojo – I am a redhead  Es calvo – he/she is bald.
soy	I am	
eres	you are	
es	he/she/it is	
somos	we are	
sois	you (plural) are	
son	they are	

<b>Gramática – Estar – to be</b> When you are talking about location, you use the verb “estar”.		<b>Examples</b>  ¿Dónde está? - Where is it?  Está en el campo - It's in the countryside.
estoy	I am	
estás	you are	
está	he/she/it is	
estamos	we are	
estáis	you (plural) are	
están	they are	

<b>Gramática – Tener – to have</b>		<b>Examples</b>  Tengo los ojos azules – I have blue eyes.  Tiene sesenta años – He is sixty years old
tengo	I have	
tienes	you have	
tiene	he/she/it has	
tenemos	we have	
tenéis	you (plural) have	
tienen	they have	

<b>Gramática – Possessive adjectives. The word for my/your are different depending on whether the noun is singular or plural</b>		
	<b>Singular</b>	<b>Plural</b>
<b>my</b>	mi	mis
<b>your</b>	tu	tus
<b>his/her</b>	su	sus

<b>Gramática - Indefinite articles – the plural for of un/una (a) is unos/unas (some).</b>				
<b>Definite articles – there are four words for “the” in Spanish.</b>				
	<b>Singular</b>		<b>Plural</b>	
<b>Masc</b>	un laboratorio	a lab	unos laboratorios	some labs
<b>Fem</b>	una clase	a classroom	unas clases	some classrooms
<b>Masc</b>	el laboratorio	the lab	los laboratorios	the labs
<b>Fem</b>	la clase	the classroom	las clases	the classrooms



**Enrichment**

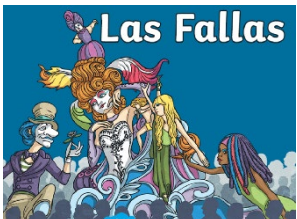
1. Look up 5 new adjectives to describe people. Use them in your writing.

English	Spanish
1.	
2.	
3.	
4.	
5.	

2. Look up information about the Spanish school system. Write down 5 differences between English schools and Spanish schools.

1.
2.
3.
4.
5.

3. Fiesta: Las Fallas de Valencia. Research and produce a poster about this Festival to be displayed in your teacher's classroom.



**Extension**

**Present tense verbs:** There are three groups of verbs in Spanish:

<b>-ar verbs</b>		<b>-er verbs</b>		<b>-ir verbs</b>	
Estudiar	To study	Comer	To eat	Vivir	To live
Estudio	I study	Como	I eat	Vivo	I live
Estudias	You study	Comes	You eat	Vives	You live
Estudia	He/she studies	Come	He/she eats	Vive	He/she lives
Estudiamos	We study	Comemos	We eat	Vivimos	We live
Estudiáis	You (pl) study	Coméis	You (pl) eat	Vivís	You (pl) live
Estudian	They study	comen	They eat	viven	They live

**Choose the correct answer:**

1. How do you say 'she talks'?

- a. hablas
- b. habla
- c. hablar

3. How do you say 'we write'?

- a. escribimos
- b. escribir
- c. escribo

2. How do you say 'I shout'?

- a. gritamos
- b. gritan
- c. grito

4. How do you say 'they read'?

- a. leen
- b. leo
- d. leer

**Translate these sentences into Spanish using the infinitive of the verb to help:**

1. He drinks water (beber- to drink) \_\_\_\_\_ agua.

2. I read my texts (leer- to read) \_\_\_\_\_ mis mensajes.

3. You study English (estudiar- to study) \_\_\_\_\_ inglés.

4. They eat sandwiches (comer- to eat) \_\_\_\_\_ bocadillos.



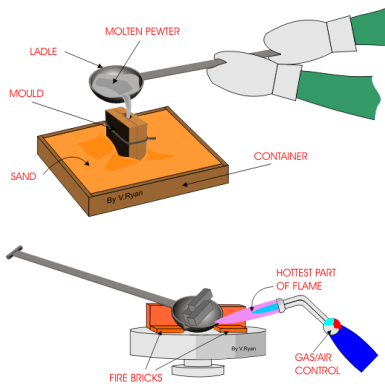
### 1. Pewter Casting

Casting is a **manufacturing process** used for making 3D shapes out of metal.

Metal is placed into a ladle and heated to its **melting point** using a gas torch.

When the metal reaches its melting point it becomes a liquid. Then it is poured into a **mould**: it goes through the **sprue** and into the **cavity**.

When the metal has cooled the mould is opened and the shape is released.



### 2. Metals

There are three main groups of metals:

**Ferrous metals** contain iron. They are magnetic and will rust (corrode). Types of ferrous metals include mild steel.

**Non-ferrous metals** do not contain iron. They are non-magnetic and will not rust (corrode). Types of non-ferrous metals include aluminium.

**Alloys** are a mix of metal. This means alloys have improved properties and are suitable for a range of different products. Types of alloys include **pewter**, which is used in casting.

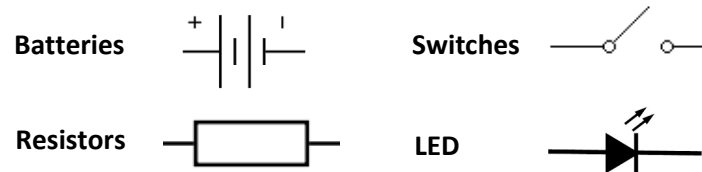
### 3. Electronics

Different components have different functions:

**Input Components** : The input is what sets an electrical circuit in action. It allows the first signal to be sent.

**Process Components**: Process components work together to ensure current and signals are sent between input components and output components.

**Output components** : The output is what the circuit results in and ultimately does.



### 4. Product Analysis

A product analysis looks at current products and assesses whether they are successful or require improving. A good product analysis informs designers how products can be developed.

When carrying out a successful product analysis you always ask yourself the following questions in relation to the product you are looking at....

1. Who is the product designed for? How do you know this?
2. How has the designer made the product easy to use?
3. What features does the product have which makes it a good product?
4. What features does the product have which could make it hard to use?
5. What materials have been used and why?
6. How would you improve the product?



### 5. Timbers

**Hardwoods** are durable and often used in expensive furniture and finishes. Hardwoods tend to have a close grain. They grow slowly. Example= Oak, Mahogany, Teak and Beech.

**Softwoods** are cheaper than hardwoods. They grow quickly. IKEA use softwood from sustainable forests, meaning that for every tree cut down they plant one in its place, a softwood tree takes 2—30 years to grow. This is better for the environment. They have very visible grain. Examples= Pine and Spruce.

**Manufactured boards** are timber sheets which are produced by gluing wood layers or wood fibres together. They are manmade. Examples are Plywood and MDF.

### 6. Sustainability

**R**educe Using less materials and energy. Reducing the amount of packaging in products.

**R**euse Designing reusable products that do not need to be thrown away straight after use.

**R**ecycle Recycling products into new materials to be used again. Choosing recyclable materials.

Sustainability is about designers and manufacturers working together to minimise the impact products have on the environment.

### 7. New and Digital Technologies

**CAD** stands for **Computer Aided Design**. CAD software allows designers and engineers to design and model their products on computers. Designs are more easily to edited.

**CAM** stands for **Computer Aided Manufacture**. CAM processes include Laser Cutting, 3D Printing and Robotics. It is quicker, more accurate and creates intricate items.

**8. Quality Control** is when engineers and designers make regular checks to ensure what they are doing is correct.

Quality control checking reduces mistakes, waste materials and wasted time. You check measuring, component assembly and quality of materials.

### 9. Working safely

**PPE** stands for **Personal Protective Equipment**.

PPE you will wear:

- Apron
- Safety goggles
- Leather Gloves

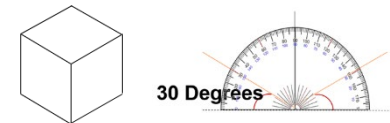
### 10. Design Communication

It is important all ideas are communicated clearly. Ideas can be communicated through drawings and annotation.

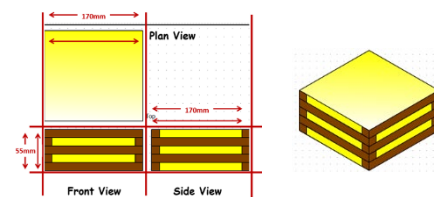
Annotation is the labelling of your work to fully explain it.

The different ways to communicate ideas through drawings shown below:

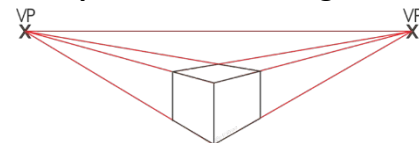
**Isometric 3D drawing:**



**Orthographic 2D drawing:**



**Perspective 3D drawing:**



**Free hand sketching:**





### 11. Project Tools and Equipment

Wire Cutters



Metal Vice



Soldering iron



Hacksaw



Soldering iron Holder



File



Wet sponge



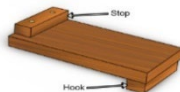
Engineer's Square



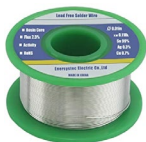
Solder sucker



Bench Hook



Solder



Tenon Saw



### 12. Material Properties

**Material properties** are the characteristics of materials and the way they perform.

**Durable:** Withstands wear and tear over time.

**Hard:** Withstands scratching.

**Tough:** Withstands sudden impact.

**Strength to Weight ratio:** Strong and lightweight.

**Ductile:** Can be stretched.

**Conductor:** Conducts heat or electricity.

**Insulator:** Does not conduct heat or electricity.

**Corrosion resistance:** Resistance to rust and UV light

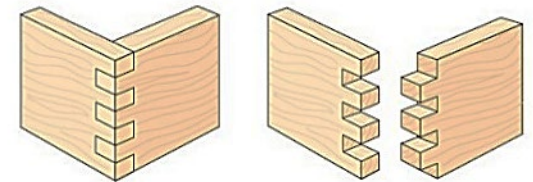
**Malleable:** Can be shaped, pressed and moulded.

### 13. Engineering Sectors

Sectors are different job areas within engineering. This includes Electrical, Mechanical, Automotive, Aeronautical, Architectural and Design Engineering. Each sector carries out different engineering tasks.

### 14. Joining Materials

**Comb joints** are used in furniture construction, especially when making drawers. They provide extra strength to the corner of wooden products. Comb Joints interlock to fit components together.



**PVA adhesive** is used to join timbers. The glue takes 24 hours to fully dry before joints are secured.

**Soldered or welded joints** are used for metal components. They heat two metal components and join them with a filler metal that hardens and holds them together.

### 15. Materials

**Timbers:** MDF, Pine, Ply, Oak

**Polymers:** Acrylic, Rubber, HIPS

**Metals:** Aluminium, Mild Steel, Pewter.



**(1.) Higher Order Thinking: Putting knowledge into context.**

Pick an everyday object or product. Something you can see or something you use at school or at home. Now keeping that object or product in mind, pick one of the questions below to discuss it in more depth. Each question is worth 6 marks.

**Usability (user friendly design):**

Products need to be able to be easily and comfortably used by a range of people. How could you make this product easy to use or understand? How could you use colours or labelling to make the product accessible?

**Material properties:**

Identify which properties are required for this product to function at its best? Evaluate why these properties are important in helping the product perform well?

**Sustainability and Renewable Energy:**

Discuss how could you make the product more environmentally friendly? Explain what you could change?

**Aesthetics:**

Is the product visually appealing? Will it appeal to its user? Discuss how could you develop the product to be aesthetically pleasing and suitable for its target user group?

**(2.) Challenge Tasks: Research, Report, Create.**

- a) Design a solution to help a football coach carry 12 drinks bottles easily.
- b) Research smart materials and suggest ways smart materials can improve everyday products in your home.
- c) Design a top tips/ health and safety poster for your current TED project.
- d) How can Coca Cola become a more sustainable company? Write to them highlighting ways they can be more environmentally friendly.
- e) Research and discuss the life cycle of a plastic bottle. Create a poster.
- f) How can everyday products be made easier to use for people with mobility problems. Redesign items in your home to make them more ergonomic and easier to use.
- g) Research different Engineering jobs. Create a skills list for at least 5 job sectors.

**(3.) Visit, Watch, Do.**

Visit this link to a sketch-a-day YouTube channel. Pick a video tutorial and develop your drawing skills by following the instructions and demos.

[https://www.youtube.com/channel/UCBtSgEZk914z5InEs\\_U2J3w](https://www.youtube.com/channel/UCBtSgEZk914z5InEs_U2J3w)



**(4.) Analyse and Develop**



- a) Who is the product designed for? How do you know this?
- b) How has the designer made the product easy to use?
- c) What features does the product have which makes it a good product?
- d) What features does the product have which could make it hard to use?
- e) How would you improve the product? Why would you make that change?