THE BOURNE ACADEMY
KNOWLEDGE ORGANISER

everyone is a learner, everyone is a teacher

Ambitious
Self Confident
Physically Literate
Independent
Resilient
Emotionally Literate

Year 7
Spring Term
2021-22

Name: .....
House:

Contents

The Bourne Academy

Knowledge Organiser: Year 7 Spring Term

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!

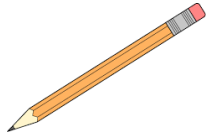
TEACH IT!
Teach someone your key facts and then get them to test you, or even test them!

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 out 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.

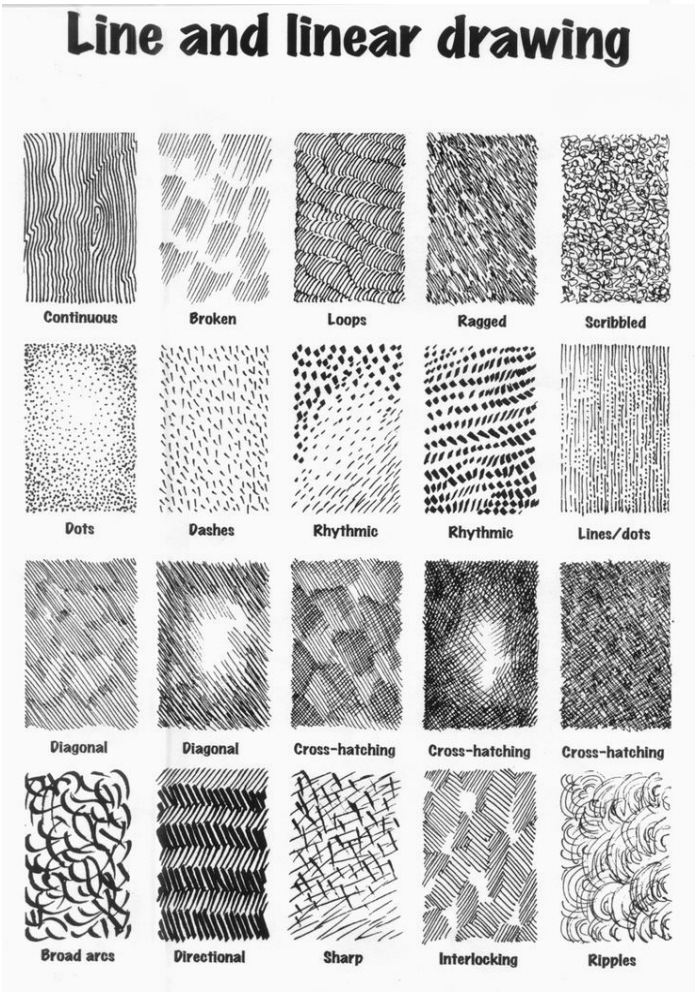


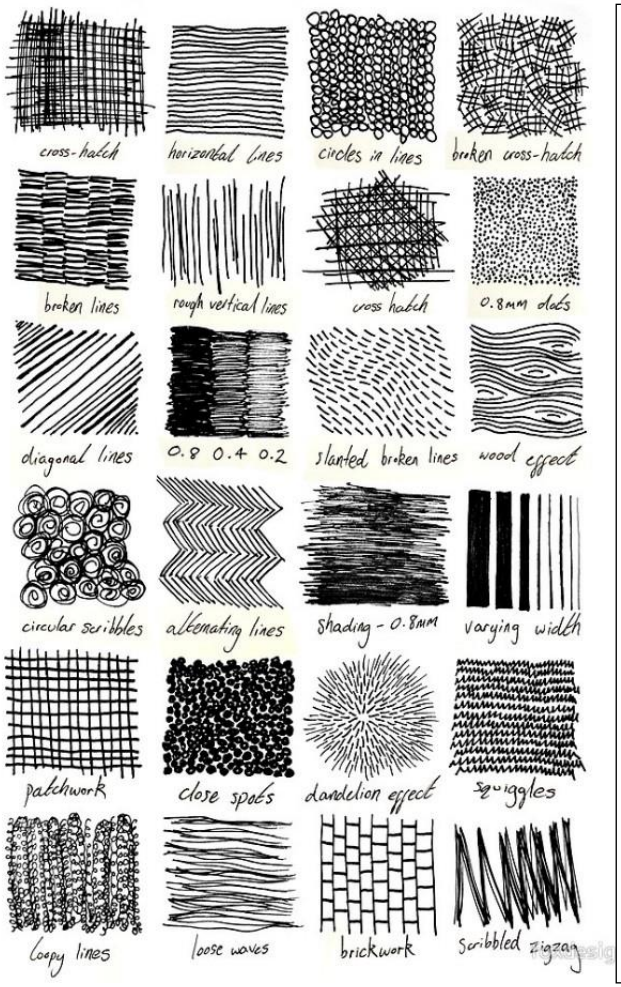
POST ITS
Using a pack of post it notes, write out as many of the keywords or dates as you can remember in 1 minute!

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.

Mark making describes the **different lines, dots, marks, patterns and textures created in a drawing**. It can apply to any drawing materials. It can be loose and expressive or controlled and neat. The results will depend on your choice of media, tools and techniques.





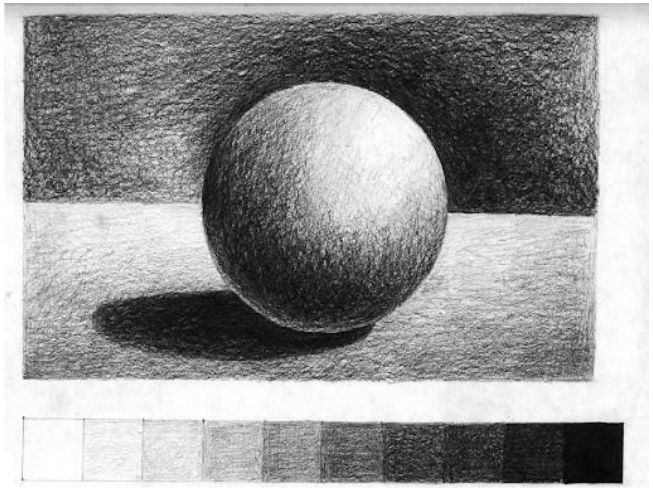
A. Keywords

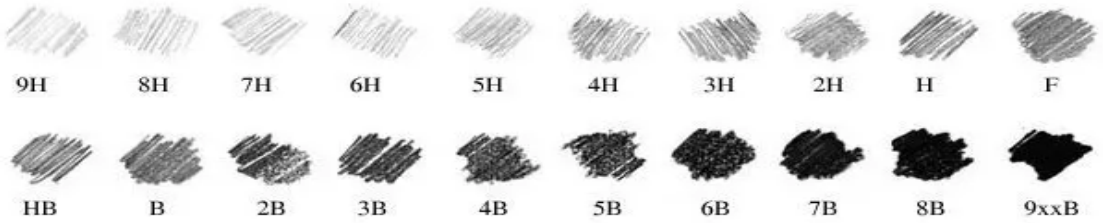
- **Gradient / graduation** – shading with graphite or charcoal, increasing pressure for darker areas
- **Hatching** – shading using one-directional lines only
- **Cross-hatching** – shading using lines that cross over one another
- **Stippling** – shading using dots, close together for darkest areas
- **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.

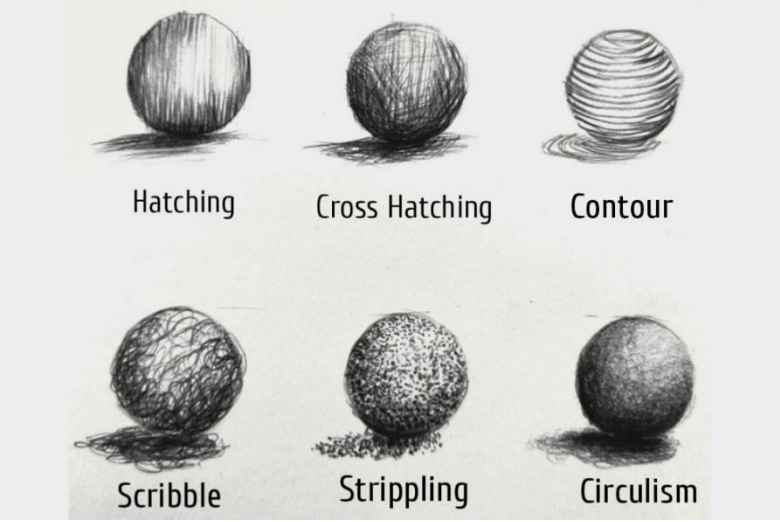
B. In Art, **tone refers to the degree of lightness or darkness of an area.**

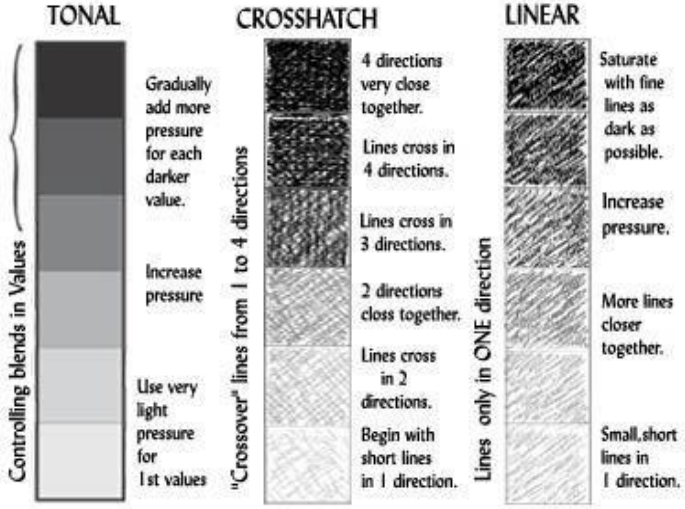
Tone varies through the bright white of a light source (and highlights), through shades of grey to the deepest black shadows.

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.









B. Elements of Art
• **Line** - a mark made using a drawing tool or brush. They can be thick, thin, horizontal, vertical, zigzag, diagonal, curly, curved, spiral etc. • **Shape** - an area that is enclosed created through lines; two-dimensional, flat, or limited in height and width. • **Form** - an area that is three-dimensional and encloses; includes height, width and depth (as in a cube, a sphere, a pyramid, or cylinder). • **Texture** - how something feels. There are two types of texture; actual (tactile) texture and visual texture (that can be created). • **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. • **Tone** – refers to the light and dark values used to render a realistic object. Shading is used to create shadows and create 'form'. • **Surface** – the uppermost layer of a thing. The surface determines how a colour is reflected, absorbed or scattered, depending upon its texture. • **Media** – the material and tools used by an artist, or designer to create a work of art, for example, "pen and ink" where the pen is the tool and the ink is the material. • **Expression** – the ability to convey emotion or create a mood or feeling within a piece of art. • **Contrast** – refers to the arrangement of opposite elements and effects. For example, light and dark colours, smooth and rough textures, large and small shapes. • **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. • **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. • **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. • **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. • **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. • **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. • **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. • **Vibrant** – refers to the intensity of colour; they are bright and strong.

The Bourne Academy

Knowledge Organiser: Year 7 Spring Term: Computing

A. Microsoft Word

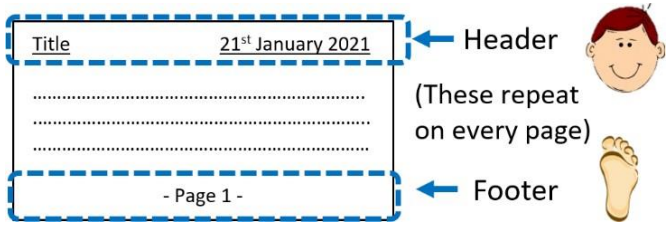
Word processing software
e.g. for creating letters/essays

Microsoft Excel

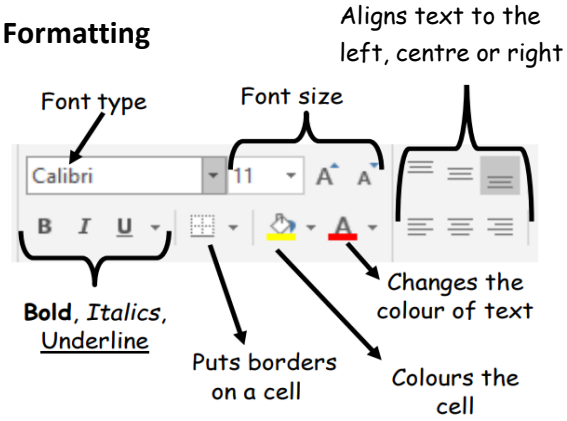
Spreadsheet software used to organise and calculate data, e.g. budget, tracking grades

Uses of spreadsheets:

- Budget tracker
- Record sport results over a season
- Money use in a business
- Teacher recording student grades



B. Formatting



C. Formulas

C. Formulas = used to calculate values between different cells e.g.

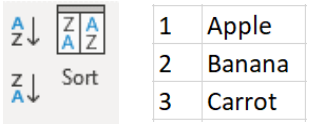
=A1+B1 (add) = A1-B1 (subtract)

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

Functions = pre-set formulas that quickly perform a range of complex tasks e.g.

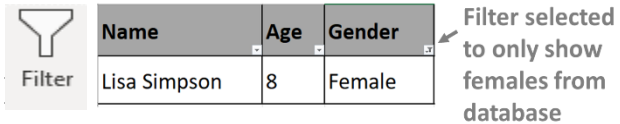
=SUM(A1:A10) - adds up total value
=MAX(A1:A10) - finds the highest value
=MIN(A1:A10) - finds the smallest value
=AVERAGE(A1:A10) - finds the average

Sort = organises data, such as alphabetically

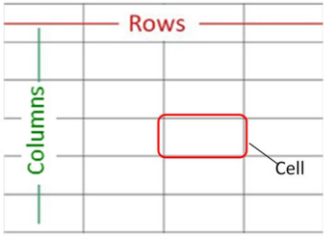


1	Apple
2	Banana
3	Carrot

Filter = makes it easier to find specific data by only showing certain types of data



Rows = cells run horizontally
Columns = cells run vertically



D. Formatting

D. Formatting = changing the appearance of the document, such as: font size, colour and position

Theme = having consistent formatting throughout a document.

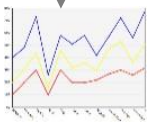
Charts/Graphs = are used to visually represent data to easily compare data and spot patterns

1. Select data
2. Click "Insert"
3. Choose chart

<u>Bar Chart</u>
Used to show **comparisons**

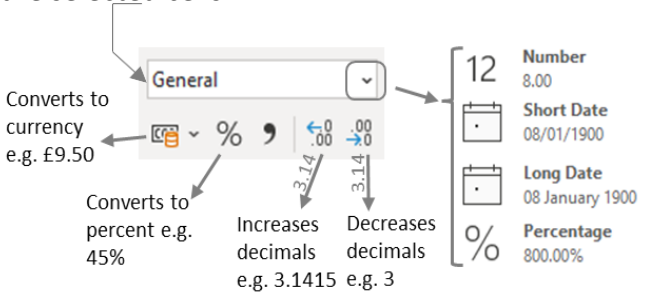
<u>Pie Chart</u>
Used to show **proportions**

<u>Line Graph</u>
Used to show **trends**



E. Data Types

E. Data Types = this is the format of the values in the selected cells.



Analysing 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).	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) Space (Where?)	**D) Dynamics (How?)**
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,

E) Tier 2 Vocabulary
Dancer
Theatre
Unison
Trio
Jumps

F) Tier 3 Vocabulary
Choreographic Devices
Proximity
Artistic Intention
Choreographer
Retrograde
Stage Directions

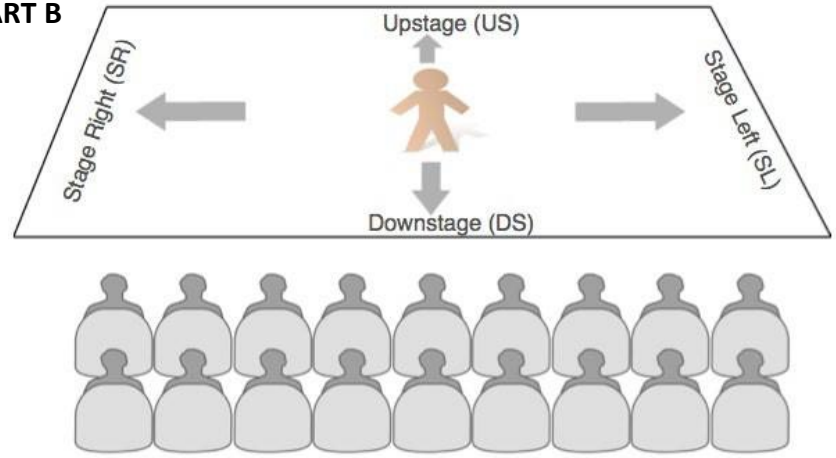
Choreographic Devices	
G) Change the Space	**H) Change the Dynamics**
Levels (high, medium, low) Size of Movement (small, medium, large) Directions (north, south, east, west) Change from near to far proximity (distance) Dance in different areas of stage (upstage, downstage etc)	The speed – faster / slower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

L. Term	Definition
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.

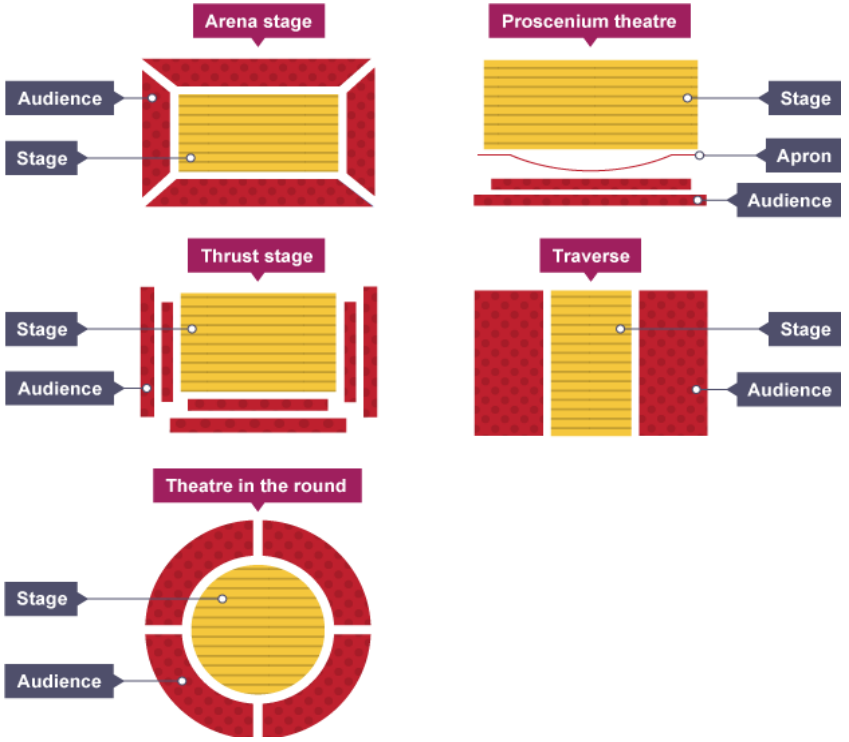
M. Term	Definition
Accuracy	How accurately you can replicate the movement
Alignment	Good alignment means that your entire body follows a straight plumb line.
Balance	Showing control whilst holding weight over a single point.
Co-ordination	Moving more than one body part at the same time.
Flexibility	The 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.

PART A	Body Language		
Posture (Upper body position	**Gesture (A movement which supports no weight).**	**Gait (How you walk)**	**Mannerisms (Movements which communicate character)**
Upright, Slouched, Relaxed, Grotesque.	Clenched Fists, Pointing, Open handed, Closed, Strong, Measured, Hesitant, Energetic.	Rapid, Sluggish, Gentle, Smooth, Direct, Rushed, Purposeful, Hasty.	Twitchy, Decisive, Indecisive, Formal, Jerky, Secretive, Wild, Controlled, Dismissive, Aggressive, Nervous, Informal.

PART B



PART C



1. Vocal Skills	The different techniques used by an actor to communicate the distinct 'voice' of a character.
Pace	Speed of speech
Projection	How well the voice 'carries' to the audience
Tone	How an performer uses his or her voice to convey character

2. Physical Skills	The different techniques used by an actor to communicate the distinct way that an actor uses their body to portray a character.
Gestures	Any movement of the performer's head, shoulder, arm, hand, leg, or foot to convey meaning.
Facial Expressions	Using the face to convey emotions, develop the story and communicate the feelings and thoughts of the character to the audience
Posture	The way a character stands.
Use of space	How an actor uses the stage to communicate meaning to an audience.

3. Constantin Stanislavski	A Russian theatrical practitioner. He believed in naturalistic performances that were as realistic as possible.
Sergeyevich Alexeyev	Real name of Konstantin Stanislavski before becoming an actor.
1863	He was born.
1938	He died.
Major works	Stanislavski wrote many books on acting that have influenced many famous actors.
The Moscow Theatre	The company that he co-founded in 1898
Naturalism	Acting as realistically as possible – as close to 'real life' as an actor can perform.
Motivation	Why a character does and says the things they do.
The Fourth Wall	An imaginary fourth wall separating the actors from the audience.
Proscenium Stage	The traditional staging type most suited to production using a fourth wall.
Objective	The reason for a characters' actions.

1. Topic words	Definition
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.
Persuade	When you attempt to convince others to take action or make a change through reasoning or argument.
Fiction	Creative writing that describes imaginary events and people.
Non-Fiction	Writing that is informative or factual (e.g. newspaper articles, speeches, editorial opinion pieces, travel writing, memoirs, autobiographies, blogs, etc.).
Bias	A preference for or against a person or group, often without giving them an equal chance.
Viewpoint	The writer's way of looking at or thinking about something.
Inequality	An unfair situation in society when some people have more than others (e.g. opportunities, money, etc.).

2. Command words	Definition
Identify	Find out who or what something is.
Recognise	Recall from having seen before.
Analyse	Look at something closely.
Plan	Diagram or list of steps.
Proofread	Read and check, amending any errors.

3. Punctuation	Symbol	Definition
Comma	,	Used to separate items in a list or to separate main and subordinate clauses.
Semi-colon	;	Used to join two linked main clauses in place of a conjunction or separate items in a detailed list.

4. Discourse markers	Example
Sequencing Arguments	Firstly, Secondly, Additionally, etc.
Furthering Arguments	Furthermore, Consequently, Moreover, etc.
Counter Arguments	On the other hand, However, Alternatively, etc.
Concluding Arguments	Ultimately, Finally, Overall, etc.

5. Clauses and sentence types	Definition	Example
Main clause	A clause that contains a subject and verb, which makes sense on its own.	I like bananas.
Subordinate clause	A clause that does not make sense on its own.	Because it was raining.
Embedded clause	A subordinate clause in the middle of a main clause, separated by commas.	Connor, who was bored, fell asleep.

6. Language terminology	Definition	Example
Anecdote	A short story about a real incident or person.	"I have a friend who wasn't given a promotion because she was female."
Emotive language	Words used to cause an emotional response in the audience.	They were terrified of what might happen to them as they were African American.
Imperative verb	Verb that is used to give an order or command.	Clean up after yourself.
Rhetorical question	Questions used to make a point. They do not require an answer.	Why shouldn't they feel upset at this?
Triple	Where using a trio (3) of words can be more persuasive.	This behaviour is abusive, cruel and illegal.
Modal verbs	Verbs that suggest the likelihood, ability, permission or obligation.	It <u>may</u> rain today but it <u>should</u> be sunny tomorrow.
Homophone	Words that sound the same but have different meanings.	I have a <u>new</u> pen. I <u>knew</u> that you would get that pen.

7. Structural terminology	Definition
Speaker	The person from whose point of view the text is written.
Headline	The title of the article.
Subheading	Headings placed throughout a text to signpost content in the section underneath.
Repetition	Where you repeat the same word or phrase to make an idea clearer.
Shift in focus	The change of focus in or between paragraphs.
Contrast	<u>Opposite.</u>

8. Word Types	Definition	Example
Noun	Name of a person, place or thing.	Her name is <u>Anna</u> and she's from <u>Manchester</u>.
Adjective	Describes a noun.	The <u>tall</u> waiter was very <u>polite</u>.
Verb	A doing or being word.	I <u>listen</u> to the word and then <u>repeat</u> it.
Adverb	Describes a verb.	Yesterday, I ate my lunch too <u>quickly</u>.

The Bourne Academy

Knowledge Organiser: Year 7 Spring Term: French. Module 2. En classe.

A. Les couleurs	**Colours**	**B. Qu'est-ce que tu penses de tes matières? Pages 36-37**	**What do you think of your subjects?**
Blanc{he}	White	Le français	french
Bleu{e}	Blue	Le théâtre	drama
Gris{e}	Grey	La géographie	geography
Jaune	Yellow	La musique	music
Marron	Brown	La technologie	technology
Noir{e}	Black	L'anglais	English
Orange	Orange	L'EPS	P.E.
Rose	Pink	L'histoire	History
Rouge	Red	L'informatique	ICT
Vert{e}	Green	Lea arts plastiques	Art
Violet{te}	Purple	Les maths	Maths
		Les sciences	Sciences
		Aimer	To like
		Détester	To detest
		Adorer	To adore
C. Qu'est-ce que tu portes? Pages 38-39	**What do you wear ?**		
Je porte	I wear		
On porte	We wear	Une veste	Socks
L'uniforme scolaire	Trousers	Des chaussettes{f]	Shoes
Un pantalon	Polo shirt	Des chaussures{f}	Trainers
Un polo	Jumper	Des baskets{f}	Stylish
Un pull	Sweatshirt	Chic	Comfortable
Un sweat	Tee shirt	Confortable	Old-fashioned
Un tee-shirt	Shirt	Démodé{e}	practical
Une chemise	Tie	pratique	
Une cravate	Skirt		

D. Ta journée scolaire est comment?	**What's your school day like?**	**E. C'est comment un collège français?**	**What's a french school like?**
Je quitte la maison	I leave the house	Quel est ton jour préféré?	What's your favourite day ?
J'arrive au collège	I arrive at school	Mon jour préféré, c'est le	My favourite day is
Je retrouve mes copains	I meet my Friends	J'ai deux heures d'anglais	I have two hours of English
On commence les cours	We start lessons	C'est ma matière préférée	It's my favourite subject
Je mange à la cantine	I eat in the canteen	Je suis fort{e} en maths	I am good at maths
Je chante dans la chorale	I sing in the choir	L'emploi du temps	Timetable
Je joue dehors	I play ouside	La rentrée	Start of a new school year
On recommence les cours	We start lessons again	Les vacances	Holidays
Je rentre à la maison	I go home	Il y a	There is/are
		Il n'y a pas de	There isn't/aren't
		Tu es d'accord	Do you agree?
		Je {ne] suis {pas} d'accord	I {dis}agree
		On étudie	We study

The Bourne Academy

Knowledge Organiser: Year 7 Spring Term: Food Sustainability and Environmental issues

A. Sustainability issues with our food

Green house gasses

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

Water use

70% of our fresh water is used for growing crops

Waste

1.3 billion tons of food are wasted every year

Transportation

Transporting food within, to and around the UK produces 19 million tonnes of CO2 annually – equivalent to around 5.5 million typical cars.

Caged hens

Each cage holds 80 hens and has a screened off area for laying, a scratch mat and low perches. Hens don't leave the cage until they go to slaughter. These cages are not big enough for hens to carry out natural behaviours.

Human rights

Worldwide 152 million children are still in child labour. Of these, 70 percent are working in agricu ture.

ow incomes and wages that kee armers' and and workers' living standards low and result in oor hea th hunger and ack o education.

B. Sustainable food production

Food sources

Use organic, sustainably grown & harvested, free range, cruelty free, and Fair trade foods.

Soil association

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

Fair Trade foods

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

The RSPCA Assured and MSC label makes it easy to recognise products from animals that have had a better life and that they have been sustainably sourced.

Manufacture/distribution

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

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.

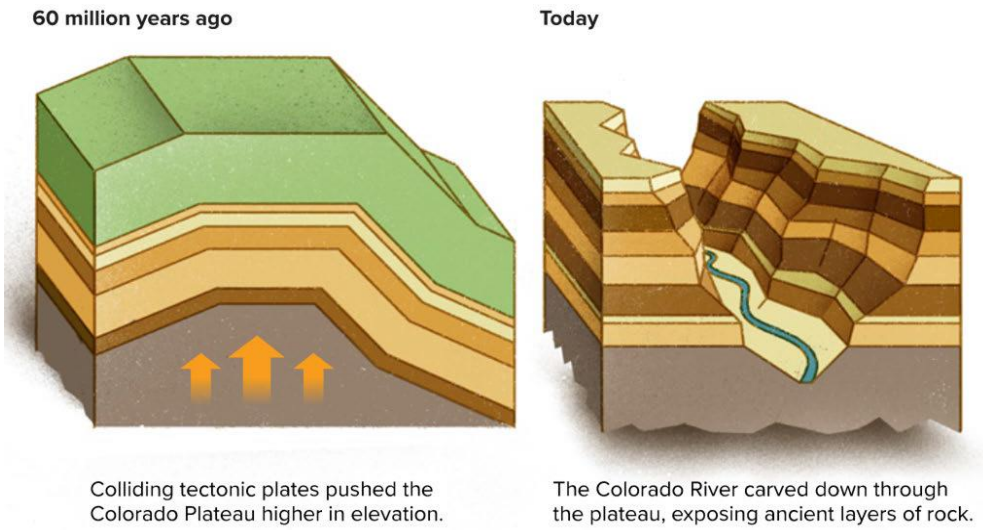
Consumption (use)

Buying 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). Don't but products that have been tested on animals.

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

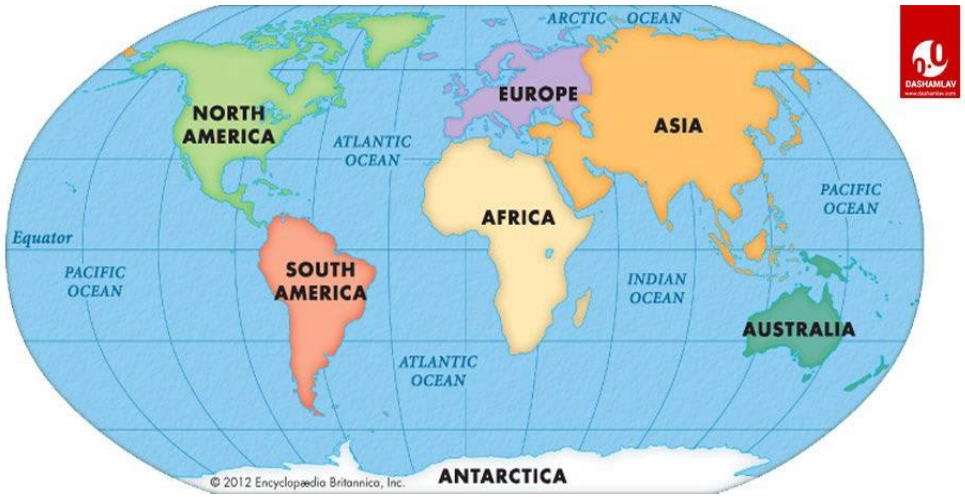
1. Key Vocabulary

a.Biodiversity	The variety of species on Earth, including plants, animals, and fungi.
b. Physical features	Features on the land which appear naturally e.g. mountains and lakes.
c. Human features	Features in the land made by human beings e.g. buildings and bridges.
d. Hualapai Tribe	A Native American tribe in Arizona with about 2300 members.
e. Dam	A barrier across a river which holds back water. It also generates power.
f. Irrigation	Applying water to crops to help crops grow.
g. Navigation	The passage of ships.
h. Hemisphere	One half of earth – either the half above or below the equator.



2. Continents

These are regions of the world that contain countries.

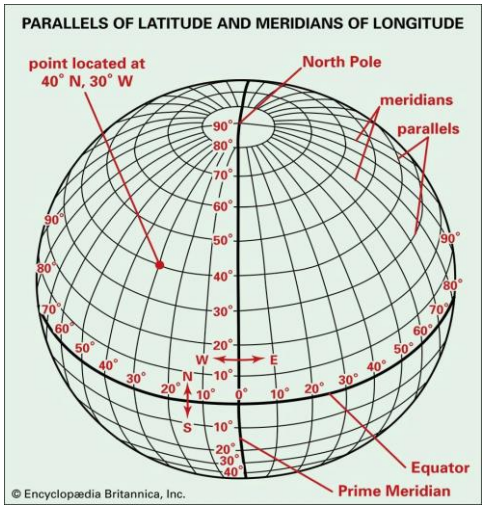


3. Formation of the Grand Canyon

1. Millions of years ago, oceans deposited of sediment.
2. Between 70 and 30 million years ago, plate tectonics caused uplift, creating the relatively flat Colorado Plateau.
3. 5-6 million years ago, the Colorado River. began to carve its way downward.
4. Further erosion by tributary streams led to the canyon's widening.

4. The Earth Grid

Latitude lines are run east to west, longitude lines run north to south.



5. Key Vocabulary

a. Antarctica Treaty	An agreement between countries to preserve Antarctica from development.
b. Prohibition	The act of forbidding something
c. Greenpeace	An group of people who are passionate about preventing destruction of the natural world
d. British Antarctic Survey	The UK's polar research team
e. Mining	The process of extracting materials from the earth

6. How are northern lights formed?

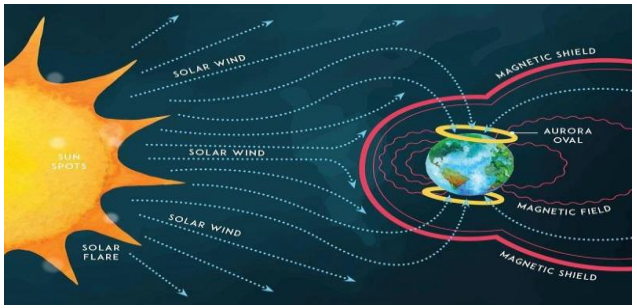
1. The energy coming from the sun is called the solar wind.

2. Particles of the solar wind are deflected by Earth's magnetic field.

3. During a high energy event like a solar flare some particles are absorbed at the north and south poles.

4. When particles of energy collide with gases in Earth's atmosphere – this creates colour.

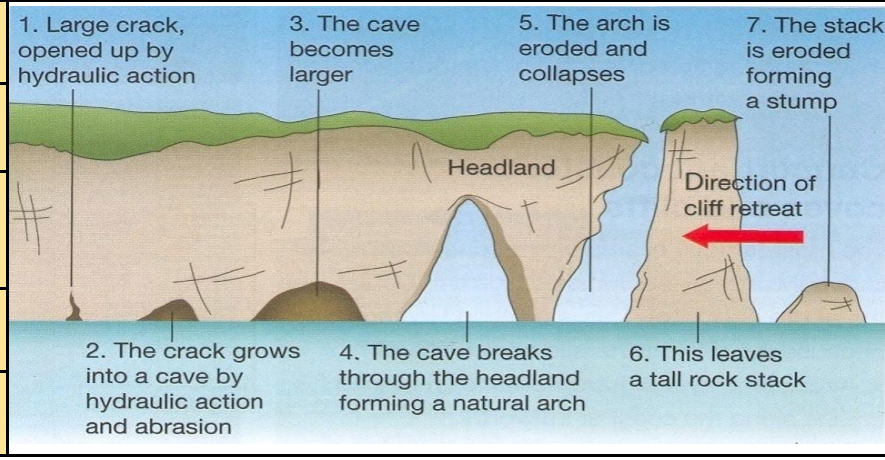
7. Where is Angkor Wat?



8. Key Vocabulary

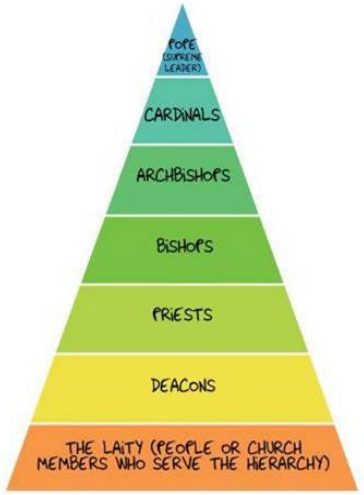
Drought	Long period of time with no rain.
Monsoon	Very heavy rain that happens seasonally in some parts of the world.
Khmer Empire	A powerful state in Southeast Asia, formed by people of the same name, lasting from 802 CE to 1431 CE.
Demise	Downfall or collapse.
Insufficient	Not good enough.

9. Formation of a stack



Knowledge Organiser Year 7 Spring Term – History – The Power of the Catholic Church

Area	A. Role of the Church
1. Knowledge	The Church produced and stored books the printing press would not be invented until the 15th Century. They copied religious texts and other important books, like medical textbooks. They had control over which knowledge would be preserved.
2. Education	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.
3. Hospitals	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.
4. Everyday life	1 in every 20 people in the Middle Ages worked within the church. The Church regularly had festivals or ''saints 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.
5. Politics	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.
6. Economics	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).

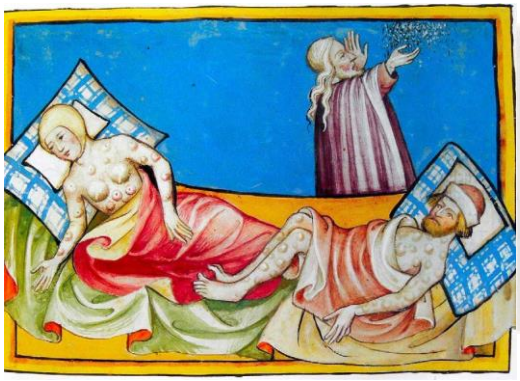


B. Key words	
1. Printing press	A device which allows books to be quickly and easily printed.
2. Alms	Money, food or similar items which are given to poor people as a form of charity.
3. Hearing confession	A ceremony where a Catholic priests listens to the sins of a Catholic and forgives them on behalf of God.
4.Last rights	A ceremony performed before a Catholic dies to help to prepare them for death.
5.Pilgrimage	A journey which is extremely important for people of a certain religion to make.
6.Relic	A historical object which often has religious important.
7.House of lords	A group of important figures in England who help create laws.

Knowledge Organiser: Year 7 Spring Term: History: The Black Death and Peasant Revolt

C. The Black Death	
1. What was the Black Death?	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 **bubonic plague** would start with **buboes** spreading across the victim's body, followed by black patches of skin and vomiting. The **pneumonic plague** was spread by breath and attacked the lungs.
2. What did medieval people think caused the Black Death?	The bubonic plague was spread by fleas living on rats that were moving throughout Europe on merchants' ships. Most medieval people thought **God** had sent the Black Death as a punishment for their sins. Others believed the alignment of the stars could explain it. Some people believed **'miasma'** (bad air) was causing the disease.
3. What were the medieval treatments?	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	
1. 1347	Black Death hits Venice (Italy).
2. June, 1348	Black Death arrived in England (Dorset).
3. 1349	Black Death leaves England having killed 30-40% of the population
4. 1351	Edward III introduces the **Statute of Labourers 1351** lowering the wages of peasants to pre-plague levels and restricts them from moving to look for a better jobs.
5. March, 1381	Peasants form an army and march on London demanding better wages and elect Wat Tyler as one of their leaders.
6. 14 June, 1381	Richard II, the 14 year old king, meets with the rebels and promises 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.
7. 15 June, 1381	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	
1. Black Death	A plague that devastated Europe in the 14th century
2. Buboes	Onion shaped swellings that were usually the first symptom of the black death.
3. Miasma	Theory that bad smelling air caused by poisonous cloud of 'bad air'.
4. Bubonic Plague	The most common type of plague, named after the buboes.
5. Pneumonic plague	A more deadly type of plague that attacked the lungs.
6. Flagellant	A religious sect that punished themselves for sins by whipping their bodies.
7. Peasant Revolt	Major uprising across England in 1381.
8. Yeoman	A new class in medieval England; commoners who farmed their own land.
9. Poll Tax	Everyone (rich and poor) paid the same amount.

1. Keyword	Definition	Example	2. Worked examples
Percent	Percent (%) means **'out of 100'**. It is a fraction with 100 as the **denominator**.	20% means 20 percent. This is 20 out of 100 and is written as $\frac{20}{100}$	
Fraction	A fraction is a **part** or proportion of a whole.	$\frac{2}{3}$ is a number between 0 and 1.	
Decimal	Relating to '**base 10'**. Decimal fractions are fractions with a denominator of 10, 100, 1,000 etc the decimal point is placed at the right of the units.		
Decimal places	Each column after the decimal point is a **decimal place**.	10.948 has three decimal places (written as 3 d.p.).	
Compare	When you compare fractions, decimals, or percentages. Make sure that they are the same format. Then you need to put them in order of **size.**	45% 55% 71.2% 0.12 , 0.74. 0.92	
Hegarty Clips		81,82,83,84,85,86,87	

Write the fraction below as percentages.

$\frac{3}{5}$

$\frac{3}{5} = \frac{60}{100}$ (×20)

$\frac{60}{100} = 60\%$

Write the percentage below as fractions in their simplest form.

$80\% = \frac{80}{100}$

$\frac{80}{100} = \frac{8}{10}$ (÷10)

$\frac{8}{10} = \frac{4}{5}$ (÷2)

1.Keyword	Definition	Example
Ratio	A way in which quantities can be **divided** or **shared**.	Share £20 between 2 people in a ratio of 3:1 This means the first person will always have 3 times more than the second person.
Simplest form	Ratios can be **simplified** by finding **common factors.**	6:8 = 3:4
Direct proportion	Ratios are in direct proportion when they **increase or decrease in the same ratio.**	Edie drinks 15 litres of water in 5 days. At this rate, how much water would she drink in 3 days? $15 \div 5 = 3$ $3 \times 3 = 9$ *lllllllllll*
Equivalent ratios	When both sides of a ratio can be **multiplied or divided by the same number** to give an equivalent ratio.	4:6 (×2) = 8:12 4:6 (÷2) = 2:4
Highest common factor	The factors of a number are those numbers that **divide into it exactly**.	10:15 5 is the **highest common factor** of 10 and 15.
$1{:}\,nn$ or $nn{:}\,1$	Make either the right side or left side of the ratio equal to 1.	$10{:}\,20$ $1{:}\,2$
Hegarty Clips	328,329,330,331,332,333,334,335,336,337,338	

2. Worked examples

Share £20 between 2 people in a ratio of 3:1.

1. Find the total number of parts

$$3{:}\,1 = 4$$

2. Divide the amount by the total number of parts

$$£20 \div 4 = £5$$

$$£5 = 1 \text{ part}$$

3. Multiply each number in the ratio by the value of 1 part

$$\times £5 \quad \begin{matrix} 3{:}\,1 \\ £15{:}\,£5 \end{matrix} \quad \times £5$$

4. Check your final amounts add up to the original amount

$$£15 + £5 = £20$$

<u>Equivalent ratios:</u>

There are 15 males and 12 females in a group. What is the ratio of males to females? Give your example in its simplest form.

$$\div 3 \quad \begin{matrix} mm{:}\,ff \\ 15{:}\,12 \\ 5{:}\,4 \end{matrix} \quad \div 3$$

15:12 and 5:4 are **equivalent ratios**.

1. Keyword	Definition	Example
Denominator	The 'bottom' of a fraction, which identifies how much makes up 'one whole'.	Denominator → $\frac{1}{2}$
Numerator	The 'top' of a fraction, which identifies how much of a whole is represented by the fraction.	Numerator → $\frac{1}{4}$
Equivalent	Equal in value. The same amount.	$\frac{1}{2} = \frac{2}{4}$
Common Denominator	A denominator (bottom) that two fractions share.	$\frac{5}{6}$ $\frac{2}{6}$
Of	x (Multiplied by).	$\frac{1}{2}$ of 4 $\frac{1}{2} \times 4$
Reciprocal	1 divided by a given number, resulting in an inverted (upside-down) fraction equal to 1 when added together.	The reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$
Hegarty Clips		65, 66, 67, 68, 69, 70, 71

2. Worked examples

1. Work out $\frac{1}{2} \div \frac{3}{4}$:

Step 1 Find the reciprocal of the second fraction before multiplying by the original first fraction

$$\frac{1}{2} \times \frac{4}{3} = \frac{4}{6}$$

2. Simplify: $\frac{4}{6} \div 2 =$

Step 1 Find the reciprocal of the whole number and multiply by the fraction and simplify

$$\frac{4}{6} \times \frac{1}{2} = \frac{4}{12} = \frac{1}{3}$$

3. Work out $\frac{1}{2} + \frac{1}{4}$

Step 1 Find the lowest common multiple for the denominators.

$$\frac{1}{2} + \frac{1}{4}$$

$$(\times 2)\ \frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4}$$

Step 2 Once the denominators are the same, we can add the numerators together

$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$

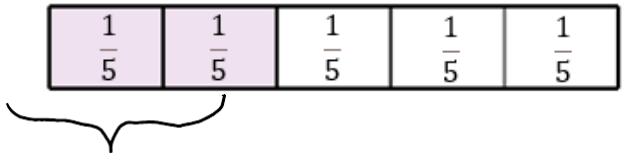
4. Work out $\frac{9}{11} - \frac{2}{11} - \frac{5}{11}$:

$$\frac{9-2-5}{11} = \frac{2}{11}$$

1. Keyword	Definition	Example
Fraction	A number that represents **equal** part of a whole. It contains a numerator (top) and a denominator (bottom). The numerator is *divided* by the denominator.	Numerator → $\frac{4}{5} = 4 \div 5$ ← Denominator
Equivalent Fractions	Fractions that have the same value.	$\frac{1}{3} = \frac{2}{6}$
Improper Fraction	A fraction which has a greater numerator (top) than its denominator (bottom).	$\frac{5}{3}$
Mixed Number	A number represented by an integer and a fraction.	$1\frac{5}{6}$
Simplify	Find an equivalent fraction with a numerator and denominator that share no prime factors.	$\frac{9}{12} = \frac{3}{4}$
Whole	A fraction with a numerator (top) equal to its denominator (bottom), which is equal to 1.	$\frac{2}{2} = 1$
Hegarty Clips		57, 58, 59, 60, 61, 62, 63

2. Worked examples

1. Shade $\frac{2}{5}$ of this shape



2. Write $\frac{3}{2}$ as a mixed number:

$\frac{3}{2} = \frac{2}{2} + \frac{1}{2}$

$\frac{2}{2} + \frac{1}{2} = 1\frac{1}{2}$

3. Simplify $\frac{3}{6}$:

$\frac{3}{6} = \frac{1}{2}$ (÷3 above, ÷3 below)

1. History and Origins of Gamelan Music

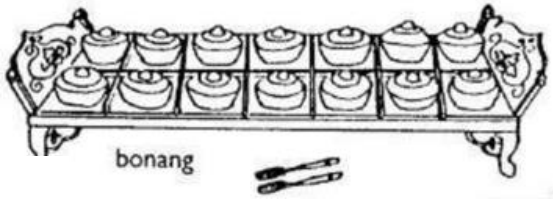
- Gamelan Music is from **INDONESIA**.
- Gamelan is played at celebrations, religious events.
- Gamelan performances are very important in village life for bringing people together and expressing their feelings.
- The Gamelan is thought to have magical and spiritual instrumentation.

- Gamelan music is handed down from generation to generation. This is called the **ORAL TRADITION.**

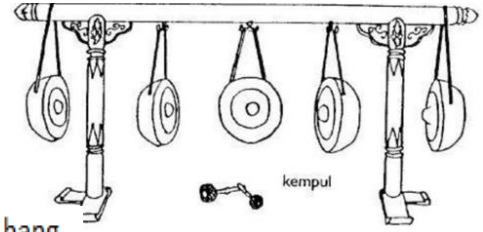
2. Musical Features of Gamelan Music

- Gamelan music is made up of **SET PATTERNS.**
- Gamelan music uses two types of **SCALE:**
  1. The **PELOG SCALE** made up of seven notes.
  2. **SLENDRO SCALE** made up of five notes.
- The main **MELODY** is called the **BALUNGAN** and is based on one of these two types of scale.
- This **BALUNGAN** is **REPEATED** over and over again to make a **CYCLIC MELODY**.
- Other instruments such as the **BONANGS DECONRATE** this **BALUNGAN**.
- **GONGS** mark out the beginning of each **RHYTHMIC CYCLE** with the biggest gong playing the last beat of the cycle and smaller gongs marking out smaller sections, such as the halfway point.

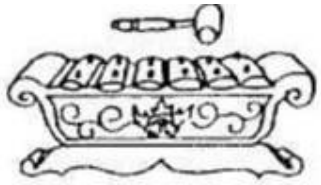
3. Instruments of the Gamelan



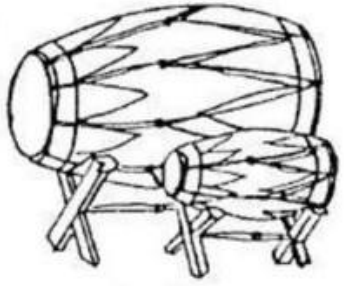
Bonangs - Rows of small gongs resting on ropes in a bed-like frame used for "elaborating" the core melody



Kempul & Gongs (These large metal discs hang on a wooden frame and provide the structure of Gamelan music dividing it into cycles)



Sarons (Types of metallophones which play the core melody. They have bronze keys fixed over a resonating box)



Kendangs (Sitting at the centre of the Gamelan, the drummer guides the rhythm and pace of the music, rather like a conductor).

4. Texture of Gamelan Music

Gamelan music has a unique type of musical texture. This is called a **HETEROPHONIC TEXTURE**. It means that there is a single melody (tune) that is played by all the instruments, but they are all slightly different

1. Key features of African music

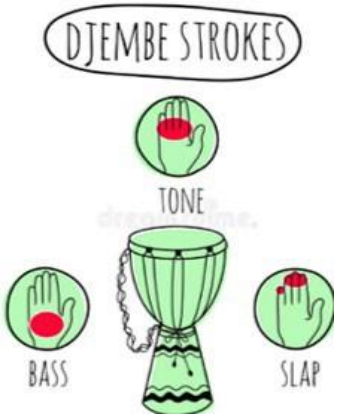
Ostinato	A repeated musical pattern
Improvisation	When music is made up on the spot
Polyrhythm	Two or more rhythmic patterns playingat the same time
Syncopation	Notes played on the off beat
Cross Rhythms	Effect when two conflicting rhythmsare heard together
Call and response	When a musical phrase is directlyanswered by another phase
Oral tradition	Music that is not written down but instead passed down by a word of mouth

2. Drum Technique

The Djembe

A skin covered **hand drum**, shaped like large goblet band and meant to be played with **bare hands.**

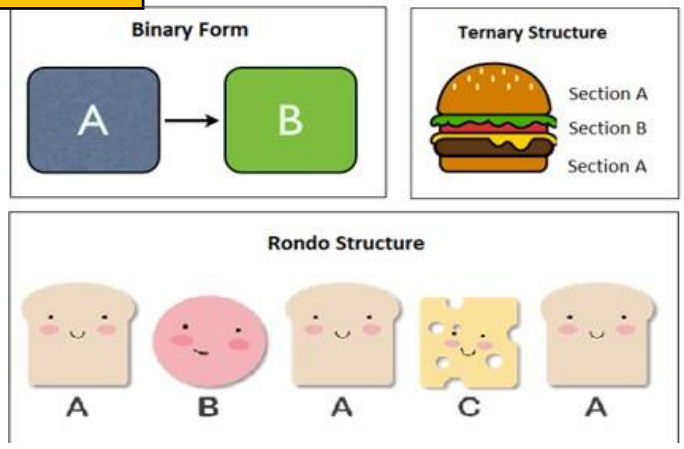
Thye name comes from the saying ' 'Anke die,anke be'' which translates as **''everyone gather toghether''** and defines the purpose of the drum.



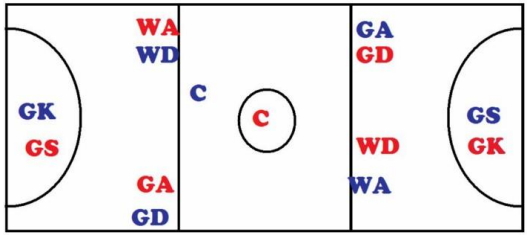
TONE	- This has a **high-pitched** ringing tone - Played with the fingers together, hitting the top /periphery of the drum.
SLAP	-This is a **short, sharp, and loud** sound but should not be a continuous sound. - The edge of the drum is struck with the fingers slightly apart.

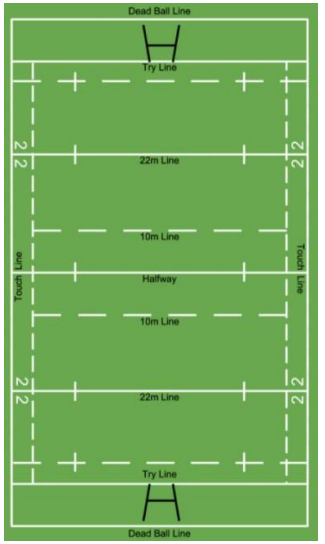
There are 54 different countries in the Continent of Africa.

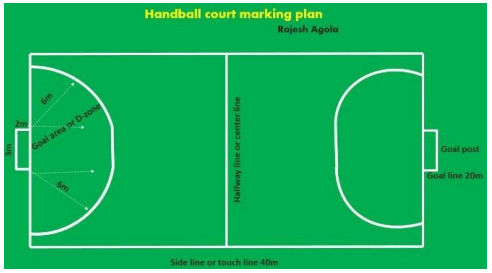
3. Structure



1. Term	Definition
Skills	Passing, shooting, Kicking, throwing, movement, striking
Attacking	Making an attempt to score or gain an advantage
Defending	Resisting an attack
Footwork	The way one moves their feet or is allowed to move their feet
Marking	A defensive strategy where a team pairs their defenders with the opposing attack
Dodging	A sudden deceptive move away from your opponent
Scoring	A measure of performance against your opponent
Officiating	A system of managing a sport, implementing the rules and discipline
Formations	The positioning of players on the pitch
Tactics	Planned strategies used within a match to gain advantage
Teamwork	The effective combined action of a group
Sportsmanship	Fair and generous behaviour
Feedback	Information a performer receives about a skill or performance
Outwitting Opponent	To outsmart an opponent







2. Components of fitness	Definitions
Aerobic Endurance Test- Cooper 12-minute run	Is the ability of the Cardiorespiratory system to work efficiently, supplying nutrients and oxygen to the working muscles during sustained activity
Muscular Endurance Test- One-minute sit-ups	Is a measure of how long a performer's muscles can powerfully contract repeatedly before they get tired?
Flexibility Test- Sit and Reach	Is the ability to move your joints through their full range of motion smoothly
Speed Test- 30-minute sprint test	Is distance divided by time
Strength Test- Hand grip dynamometer	Is the amount of force muscles can generate to overcome resistance
Power Test- Sergeant jump test	Is the ability to combine strength and Speed
Body Composition	Measure of fat, muscle, bone, and water
Max Heart Rate (HR)	Calculation: 220 – age =
3. FITT Principles of Training	**Definitions**
Frequency	The number of times you train
Intensity	This is how hard you train
Type	This is the method of training used
Time	This is how long you train for

4. Macronutrients	Definitions
Carbohydrates	The body's main source of energy (Source-bread/rice/sugar)
Protein	Provide the building blocks, essential for muscle growth and repair (Source-Meat/fish/beans)
Fats	Energy source for low to moderate intensity activities (Source- Butter, cheese, fish, nuts)
5. Micronutrients	**Definitions**
Vitamin A	Important for eye health (Source-fish)
Vitamin B1	Essential for energy production (Source- rice, beef, Beans)
Vitamin C	Maintains a healthy immune system (source- Fruit and veg)
Vitamin D	Crucial for healthy bones and teeth (Source- eggs, oily fish)
Potassium	Important for keeping fluids in body (Source- bananas)
Iron	Enable red blood cells to carry oxygen (Source-spinach, beef)
Calcium	Crucial for strong, healthy bones. (Source- cheese, milk)
6. Balanced Diet	**Definitions**
Calories	RDAs: Recommended daily allowance of calories (Kcal) Males 2500 Kcals, women 2000 Kcals
Hydration	RDAs: Recommended daily intake (RDI) 2 litres of fluids a day
7. Psychology in Sport	**Definitions**
Motivation	The drive for a person to be successful
Anxiety	An undesirable emotion
Self-confidence	The belief that a desired behaviour can be performed

1. Key Words

- Nativity: The story of Jesus' birth
- Miracle: An event that defies natural law
- Parable: A story with a special meaning
- Disciples: Jesus' followers
- Messiah: A King to save the Jews
- Crucifixion: Being killed on the cross
- Resurrection: Jesus coming back from the dead

2. Baptism:

- Welcomes someone into the Christian church.
- Many believe it washes away sin.
- Infant and Adult Baptism.
- Jesus' Baptism:
- Jesus was baptised by John the Baptist.
- Afterwards the heavens opened, and the oly pirit came down in the form of a dove.
- Then a voice said from heaven, "This is my own dear son with whom I am pleased."

3. 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 oly pirit descendend upon the disciples.

4. 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.

5. Jesus' 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) To turn 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

6. 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."

7. Prodigal son

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

1. Names for Jesus

Son of God: Jesus had to **God's power**, **e.g.**, when performing **miracles**.

Son of Man: **Jesus was human**, he had emotions **and suffered** just like everyone else

Messiah: The **anointed one**. In many cultures it means King or Queen. **The messiah would save the Jews from Evil.**

2. Miracles

An event or occurrence which goes against the laws of nature.

Categories of Jesus' miracles

Power of nature

- The calming of the storm
- The Feeding of the 5,000

Power of healing

- The paralysed man
- Blind Bartimaeus

Power over death

- Jairus' daughter
- Lazarus
- Resurrection

3. Jesus cleanses the temple

When Jesus and his disciples arrive in Jerusalem they go to the temple.
It was customary for animals to be sacrificed. However, some of the traders were selling these animals for sacrifice at ten or fifteen times their usual price.
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.
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.

4. Judas agrees to betray Jesus (Mark 14: 10–26)

Judas went to the chief priests to betray Jesus. They promised Judas some money.
Jesus and his disciples were celebrating the Passover meal together.
Jesus made a shock announcement. He said that he would be betrayed by one of his disciples, "The one who dips his bread in the dish with me".
The disciples were shocked and anxious and said, "Surely not me?"

5. Jesus before the Jewish Council (Mark 14: 53–65)

The Sanhedrin was the supreme council of Jews which controlled civil and religious law.

Jesus was brought before the Sanhedrin accused of **blasphemy.**

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 **"I am."**

Jesus explained his identity in his own terms, **"You will see the Son of Man sitting at the right hand of the Mighty One and coming on the clouds of heaven."**

6. Jesus and Pilate

Pilate tried to find a solution. He offered the crowd to either release Jesus or Barabbas, a convicted murderer. However, Pilate's plan did not work because the Sanhedrin persuaded the crowd to ask for Barabbas to be released, instead of Jesus.

Pilate did not want to damage his relationship with the Jewish

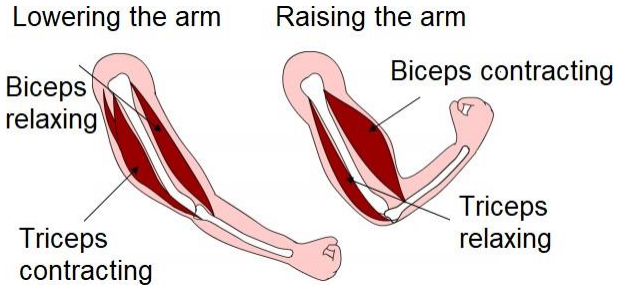
7. Crucifixion and Resurrection (Mark 16: 1–8)

Jesus was crucified at Golgotha between two bandits with 'Jesus of Nazareth, King of the Jews' on top of his cross. After the sabbath, Jesus' tomb was visited and found empty.

A young man dressed in white was there. He told the women that Jesus had risen and to tell the disciples, including Peter, that he would meet them in Galilee.

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

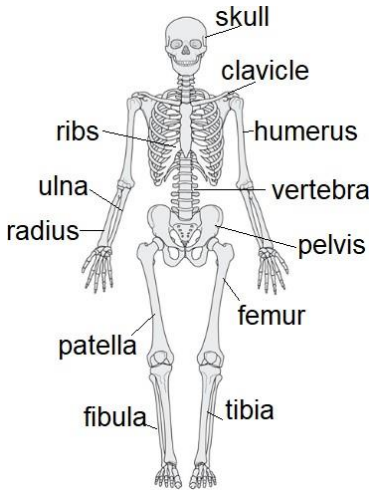
(3) Antagonistic Muscles



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.

1) 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).

(2) 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

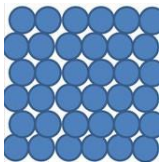
Muscles move joints in antagonistic pairs. Tendons connect muscles to bones. Ligaments connect the bones in joints.

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

(2) Changes of State

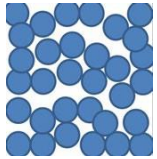
A change of state is a **physical** change for example, a solid to a liquid. A physical change can be reversed and the particles remain unchanged.

(1) Solids, Liquids and Gases



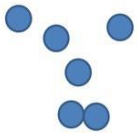
Solid

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

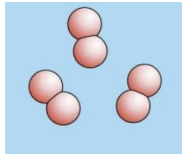
Particles are loosely packed and can slide over each other.
Cannot be compressed
Fill the shape of the container.
More energy and can flow.



Gas

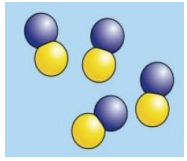
Particles are far apart and are free to move around.
Can be compressed
Fill the shape of the container.
Most energy and move quickly.

(3) Elements, Compounds and Mixtures



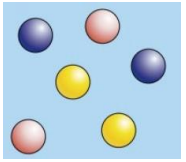
Element

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.



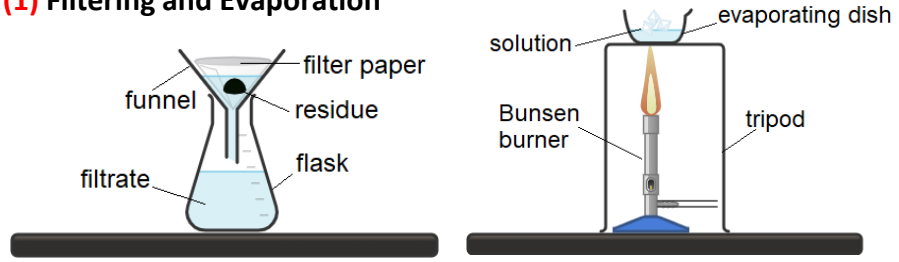
Mixture

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.

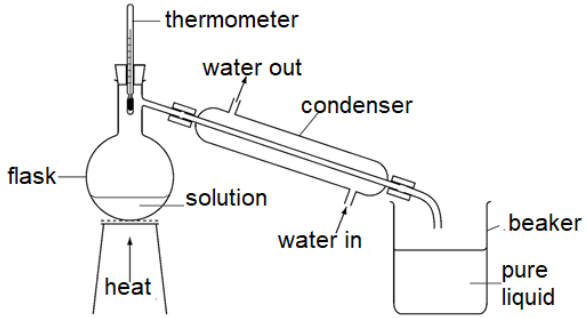
Key Word	Definition
Boiling point (b.p.)	The temperature at which a liquid turns into a gas.
Chromatogram	The chromatography paper with the ink spots.
Chromatography	A method of separating a mixture of dissolved solids
Distillation	A method of separating two or more liquids by their boiling point.
Filter/Filtration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

The melting/freezing point of water is **0 ºC** and the boiling point of water is **100 ºC.**

(1) Filtering and Evaporation



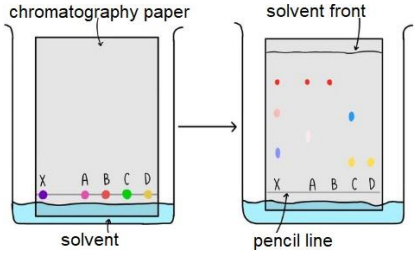
(2) Distillation



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.

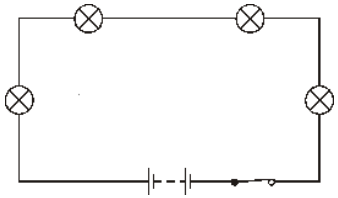
(3) Chromatography

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.



Key Word	Definition
Ammeter	Ammeters measure the current flowing through a circuit.
Battery	A battery is made of two or more cells joined together in series.
Component	Another word for 'part' – components are the different parts of a circuit.
Current	Current is the flow of electrons around a circuit. Current is measured in amps. It is measured in amps (I)
Parallel circuit	The components on a parallel circuit are on different loops.
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).
Resistance	Resistance is a measure of how easy it is for current to flow around a circuit. It is measured in ohms ( )
Series circuit	The components on a series circuit are on the same loop.
Voltmeter	Voltmeters measure the potential difference (voltage) in a circuit.

(1) Series Circuit

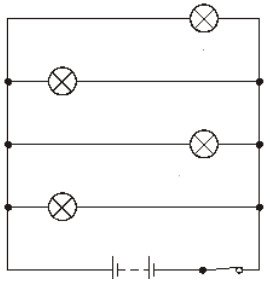


In a **series circuit**, all the components are on the same loop (except for the voltmeter). If any component breaks, the whole circuit has broken.

Current is the **same** all through the circuit. The ammeter will read the same wherever it is.

Voltage is **split** between the components (parts) of the circuit. A voltmeter will give different readings.

(2) Parallel Circuit



In a **parallel circuit**, the components are on different loops. If one component breaks, the current can flow through the other loops of the circuit.

Current is **split** between the components of the circuit. The ammeter will give different readings.

Voltage is the **same** all through the circuit. The voltmeter will read the same wherever it is.

(3) Resistance is a measure of how easily current can flow around a circuit. The more components in a circuit, the higher the resistance.

We use this equation to calculate the resistance in a circuit.

R = V ÷ I

resistance = voltage ÷ current

The Bourne Academy

Knowledge Organiser: Year 7 Spring Term: **S**panish : Mi insti (My school)

(A) ¿Qué estudias?	***What do you study?***	**(B) ¿Cuál es tu día favorito?**	***What is your favourite day?***
Estudio... ciencias dibujo educación física español francés geografía historia informática inglés matemáticas música religión teatro tecnología	I study… science art PE Spanish French geography history ICT English Maths Music RS Drama technology	Mi día favorito es el lunes/el martes Los lunes/martes estudio… ¿Por qué? Porque… por la mañana por la tarde estudiamos no estudio	My favourite day is Monday/ Tuesday. On Mondays/Tuesdays I study… Why? Because… in the morning in the afternoon we study I don't study
(C) Opiniones	**Opinions**	**(D) ¿Cómo es tu insti?**	**What's your school like?**
¿Te gusta el dibujo? Sí, me gusta el dibujo. No, no me gusta el dibujo. aburrido/a difícil divertido/a fácil práctico/a útil	Do you like art? Yes, I like art. No, I don't like art. boring difficult funny easy practical useful	Es... antiguo/a bonito/a bueno/a feo/a grande horrible moderno/a pequeño/a	It's… old nice good ugly big horrible modern small

(E) ¿Qué hay en tu insti?	**What is there in your school?**	**(F) ¿Qué haces durante el recreo?**	**What do you do during breaks?**
En mi insti hay…	In my school, there is…	Como…	I eat…
un campo de fútbol	a football field	un bocadillo	a sandwich
un comedor	a dining hall	unos caramelos	some sweets
un gimnasio	a gymnasium	chicle	chewing gum
un patio	a playground	una chocolatina	a chocolate bar
una biblioteca	a library	fruta	fruit
una clase de informática	an ICT room	unas patatas fritas	some crisps
una piscina	a swimming pool	Bebo…	I drink…
unos laboratorios	some laboratories	agua	Wáter
unas clases	some classrooms	un refresco	a fizzy drink
No hay piscina.	There isn't a swimming pool.	un zumo	a juice
		Leo mis SMS.	I read my text messages.
		Escribo SMS.	I write text messages.
		Nunca hago los deberes.	I never do homework.
(G) Palabras muy frecuentes	**High-frequency words**	**(H) Expresiones de tiempo**	**Time expressions**
Algo	something	a veces	Sometimes
Donde	where	normalmente	Normally
Hay	there is/there are	primero	First
o	or	luego	Then
pero	but		
¿Por qué?	Why?	**(H) Los profesores**	**Teachers**
porque	because	El profesor/La profesora es…	The teacher is…
también	also, too	Paciente	Patient
tampoco	nor/neither	raro/a	Odd
y	and	severo/a	strict

The Bourne Academy

Knowledge Organiser: Year 7 Spring Term: TED

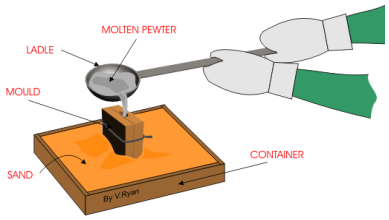
1. Pewter Casting

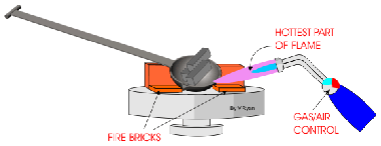
Casting is a **manufacturing process** used for making 3D shapes out of metal.

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 – non-ferrous – alloys

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

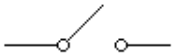
Different components have different functions:

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.

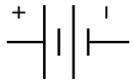
Output components -The output is what the circuit results in and ultimately does.

Switches

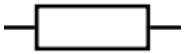


LED

Batteries



Resistors



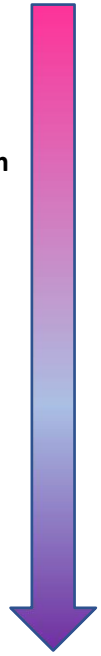
4. Product Analysis

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….

Medium

Hot



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 sturdy and often used in expensive furniture and finishes. Hardwoods tend to have a close grain. Example= Oak, Mahogany, Teak and Beech

Softwoods are cheaper than hardwoods and are used mostly for their look and appearance. 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 and cheaper for the customer. Examples= Pine and Spruce.

Manufactured boards are timber sheets which are produced by gluing wood layers or wood fibres together. Examples are plywood and MDF.

6. Sustainability

R educe Using less materials and energy.

R euse Using components and materials that have been used before.

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

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.

CAM stands for **Computer Aided Manufacture**. CAM processes include Laser Cutting, 3D Printing and Robotics.

8. Quality Control

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

Ways you can quality control your work include checking spellings and using task criteria to ensure your work does everything the task asks.

9. Working safely

PPE stands for **Personal Protective Equipment.**

PPE you will wear:

- Apron
- Safety goggles
- Leather Gloves

10. Design Communication

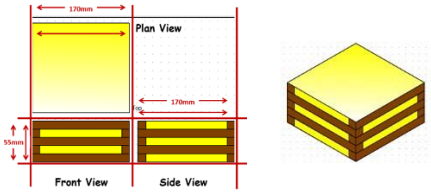
It is important all ideas are communicated clearly. Ideas can be communicated through drawings and annotation.

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

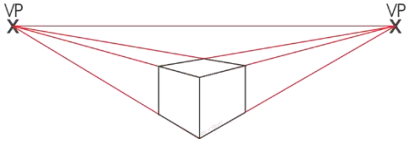
The different ways to communicate ideas through drawings shown below:

Isometric 3D drawing:

Orthographic 2D drawing:



Perspective 3D drawing:



Free hand sketching:

THE **BOURNE** ACADEMY

Hadow Road, Bournemouth, Dorset, BH10 5HS

www.thebourneacademy.com

Tel: 01202 528554