

### 1 – Elements of art

**Line:** A mark made by a brush, pen or stick; a moving point.

**Shape:** A flat, enclosed area that has two dimensions, length and width.

**Organic shapes:** Organic shapes are irregular and imperfect. They are often curved and flowing and can seem unpredictable.

**Value / tone:** How light or dark something is. *The difference between values is called contrast.*

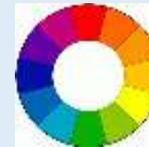
### 2 – Definitions

**Composition:** the way the elements of art are arranged on the page.

**Patterns:** A pattern is a design in which lines, shapes, forms or colours are repeated.

**Harmonious colours:** colours that are next to each other on the colour wheel, *for example orange, yellow and green.*

**Contrasting colours:** colours that are opposite each other on the colour wheel, *for example red and green.*



### 3 – Definitions

**Layering:** putting one layer on top of another.

**Relief printing:** a process consisting of cutting or carving a printing surface in such a way that all that remains of the original surface is the design to be printed.

Carving could be done using lino or polystyrene.

**Brayer:** a small roller used to apply ink in printmaking.

**Printing ink:** coloured paste used to print.

### 4 – Printing definitions

**Lino printing:** a form of printing which involves carving a design out of the surface of a sheet of lino with a sharp instrument such as a gouge. The raised (uncarved) areas represent a mirror image, of what is to be printed.

The lino sheet is then inked using a roller, and impressed onto a flat surface—usually paper or fabric.

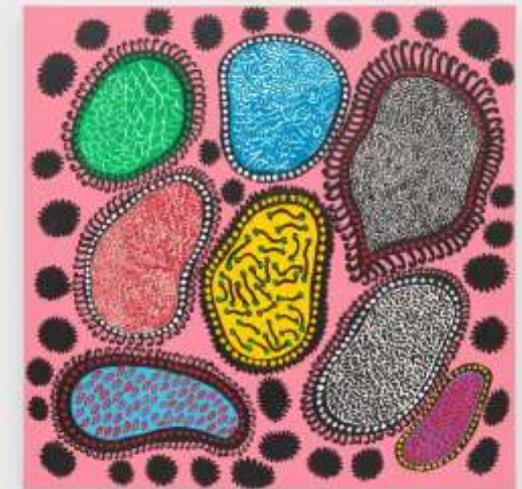


### 5 – Yayoi Kusama

Born 22 March, 1929 Yayoi Kusama is a Japanese contemporary artist who works primarily in sculpture, painting and performance arts.

Her work often features organic shapes, patterns and bright bold colours, looking like things found in the natural world, such as atoms and cells.

She finds the repetitive process of painting repeat patterns helps manage her mental health issues.



### 1: Getting to know excel

**Spreadsheets** – document in which data is arranged in the rows and columns of a grid and can be manipulated.

**Cell** – spaces that hold data

**Column** – Goes along the top (A,B,C,D)

**Border** – Adds a border around the cell

**Cell reference** – Is the cell number (for e.g.A6)

**Data** – Raw facts and figures (information)

**Row** – Numbers going down the side of the spreadsheet

**Range** – a number of cells highlighted for e.g. A2:A6

### 2: Quick calculations

**Formula** – it is used to perform calculations

**Autofill** – It is used to replicate the data

**Calculation symbols**

/ Divide

\* Multiply

+ -Add

- Minus (takeaway)

For e.g. = A5+B5 =  
= A5/B5

Every calculation **MUST** start off with =

### 3: Collecting data

**Data** – Raw facts and figures (information)

**Primary data** – You collected the Data yourself.

**Secondary data** - Somebody else collected the data.

**Sources** – Where the information was obtained from.

17	10	15
27	23	17
26	18	26
19	17	20
46	37	38
12	8	21
10	18	14

### 4: Become a data master

**SUM** – calculates a range of cells.

**COUNTA** – counts cells that contain information.

**MAX** – will give you the largest value in the range.

**MIN** – will give you the lowest value in the range.

=SUM(A6:A9)

=COUNTA(A2:A7)

=MAX(C4:C12)

=MIN(D4:D25)

### 5: Level up your data skills

**COUNTIF** – counts cells in a range that meet a single condition.

**IF** – It allows you to make logical comparisons between a value and what you expect.

**AVERAGE** – calculates the average (mean) of the supplied numbers.

**Filter** – Allows you to view specific rows in excel.

=AVERAGE(E5:E43)

=COUNTIF(A2:A8,F1)

=IF(C6>=70,"Pass","Fail")

### 6: Example blogs

**Conditional formatting** is a feature in many spreadsheet applications that allows you to apply specific **formatting** to cells that meet certain criteria. It is most often used as colour-based **formatting** to highlight, emphasize, or differentiate among data and information stored in a spreadsheet



## 1. Contextual Information

**Willy Russell's background**—Russell was brought up in a working class family in Liverpool where his Dad had various jobs, such as a miner; he was also an alcoholic. Russell was interested in class as his mother aspired to be of a higher class. Russell feared he would end up like his father but felt saved by his in-laws who nurtured him, hence his interest in nature (who you are as a person) versus nurture (how you were cared for by your family).

**Margaret Thatcher**—First female Prime Minister between 1979-1990 leading the Conservative Party. She was responsible for lots of working class people (including miners) losing their jobs. During her time in power, unemployment rates were raised higher than ever before.

**Thatcherism**—A Conservative set of beliefs (ideology) which think that the government should not involve themselves in private business etc., but have a small role in society (for example, the state should not run businesses), and there should be low taxation for individuals.

**Liverpool in the 1960s-1980s**—Although Liverpool became a hotspot for culture in the 1960s, by the late 1970s the city had the highest unemployment rates in the country and lots of factory closures and the steady decline of the docks as a source of employment. There were the Toxteth Riots in 1981 between the black community and the police.

**Social division / inequality**—Written during a period of huge changes in society and politics, *Blood Brothers* draws the audience's attention to the detrimental effect that social inequality can have on people's lives.

**Superstition**—Someone's belief or practice based on a trust in luck and/or other supernatural forces. An example of a superstition would be belief that breaking a mirror will give you seven years of bad luck.

**Marilyn Monroe**—An extremely famous actress in the 1950s. She was known for being extremely beautiful but sadly died a very tragic death.

## 2. Key Dramatic Concepts

1. **A didactic play**—A drama which intends to teach a moral message or lesson.

2. **The Tragic Genre**—A type of play which presents the downfall of character(s) and shows their great suffering.

3. **Narrator**—A person who gives the spoken account of a story. In *Blood Brothers*, the narrator is 'omniscient' (all-seeing).

4. **Juxtaposition**—the fact of two things being seen or placed close together with contrasting effect.

5. **Foreshadowing**—when a writer gives hints of what is to come later on in the story

6. **Foreboding**—a feeling that something bad will happen

7. **Symbols and motifs**—A symbol is a thing (e.g. object) that represents or stands for something else.

A motif is a dominant or recurring image or idea in a text.

8. **Catharsis**—A sense of pity or fear an audience is supposed to feel when watching a tragic play.

9. **Parallel scenes**—Scenes that are not exactly identical, but contain lots of similarities.

10. **Dramatic tension**—Excitement and/or nervous anticipation regarding an outcome of a story.

### 3. Ambitious Vocabulary

**Fraternal (adj.)**—of or like a brother; *He acted in a fraternal, protective way for his little brother.*

**To nurture (verb)**—to care for and protect something; *A parent's responsibility is to nurture their child.*

**Tragedy (noun)**—an event causing great suffering, destruction, and distress AND a particular genre of play; *The plane crash was a horrific tragedy OR The genre of 'Blood Brothers' is tragedy.*

**Didactic (adj.)** —something intending to teach a moral lesson or message; *Blood Brothers teaches a didactic message about social inequality.*

**Pivotal (adj.)** - something extremely important; *The character of Linda is extremely pivotal to the plot's tragic ending.*

**Fate (noun)** - the development of events outside a person's control, usually seen as pre-determined by a supernatural power; *It was fate when the two lovers met once again.*

**Superstition (noun)** - belief in luck and/or the supernatural; *My mother's beliefs in superstition were very strong.*

**Inequality (noun)** - something that is not equal, such as social class; *Britain in the 1960s was a place of inequality.*

**Masculinity (noun)** - qualities that are usually attributed to / given to men; *Typical ideas of masculinity involve stereotypes about bravery.*

### 4. Grammar: Standard English vs. Colloquialisms

#### Standard English

**Standard English** is the English language in its most widely accepted form, as written and spoken by educated people in both formal and informal contexts.

It is the **type of language that people would be expected to use in formal settings**, such as in education, professional settings, and public speaking.

It is used to **avoid any miscommunication or misunderstanding** between groups of people who use English across different places (regional differences within England, for example, or between American and English users).

#### Colloquialisms

**Colloquialisms, or 'slang'**, are used in casual, informal conversation, usually between family or friends.

Often, colloquialisms **vary between different countries and regions** within a country (for example, there is different slang in Yorkshire versus London).

#### Accent vs. dialect

Your **accent** is the way you **sound** when you speak, and your **pronunciation** of words.

Your **dialect** is both your **accent** and the **type of words/colloquialisms you use** based on **where you live or where you are from**.

1. 1970s Britain	2: Theatrical Skills	4: Stage Directions
<ul style="list-style-type: none"> <li>Britain experienced an economic recession</li> <li><b>Recession:</b> when a countries economy worsens, causing an increase in national debt.</li> <li>Traditional industries like shipbuilding and coal mining were badly effected. These industries often employed whole communities of working-class men who relied on these jobs.</li> <li>Margaret Thatcher became Prime Minister in 1979 and closed down lots of traditional industries because she thought they weren't profitable, this resulted in lots of people losing their jobs.</li> </ul>	<p><b>Theatrical Skills</b> are utilised by an actor to assist them to rehearse and perform a piece of theatre effectively.</p> <p><b>Freeze frame:</b> a frozen piece of action</p> <p><b>Thought track:</b> when a character tells the audience their thoughts during a pause in the action</p> <p><b>Hot-seating:</b> a rehearsal technique where an actor stays in characters and answers questions from the rest of the group - (the aim is to develop a better understanding of the character)</p> <p><b>Split stage:</b> dividing the space to show more than one location</p> <p><b>Cross-cutting:</b> to show two or more scenes happening simultaneously. One scene freezes while another is in action, then they swap.</p>	<ul style="list-style-type: none"> <li><b>Blocking:</b> the precise movement and positioning of actors on a stage in order to create the scene</li> <li><b>Proxemics:</b> the use of physical space between the actors on stage to create meaning</li> <li><b>Upstaging:</b> the part of the stage farthest from the audience. This is where the most important character is because it makes the other character turn to look at them.</li> <li><b>Crossing:</b> moving from one part of the stage to another part</li> </ul>
5: NVC Skills	6. Vocal Skills	
<ul style="list-style-type: none"> <li><b>Non Verbal Communication (NVC)</b> relates to the way movements, posture and gestures can show how someone feels without speaking.</li> <li><b>facial expression:</b> the appearance, mood or feeling conveyed by a person's face</li> <li><b>posture:</b> the position a character holds themselves in when sitting or standing</li> <li><b>gesture:</b> a movement made by part of the body (e.g. arms, head) to convey a character's emotions</li> <li><b>gait:</b> a person's manner of walking</li> </ul>	<ul style="list-style-type: none"> <li><b>Volume:</b> ensure that your voice reaches everyone in the audience</li> <li><b>Pace:</b> ensure that your pace of speech is appropriate to your character</li> <li><b>Pitch:</b> the degree of highness or lowness of the voice</li> <li><b>Pace:</b> the speed at which someone speaks</li> <li><b>Tone:</b> a quality in the voice that expresses the speaker's feelings or thoughts</li> <li><b>Oracy:</b> the ability to express oneself fluently and grammatically in speech</li> <li><b>Clarity:</b> ensure that you speaking clearly</li> </ul>	



### 1: Daily Routine Vocabulary

<b>se réveiller</b>	to wake up	<b>je prends le bus</b>	I get the bus
<b>se lever</b>	to get up	<b>j'arrive au collège</b>	I arrive at school
<b>se laver</b>	to get washed	<b>on a la récré</b>	we have break
<b>se doucher</b>	to get showered	<b>je quitte le collège</b>	I leave school
<b>s'habiller</b>	to get dressed	<b>je rentre à la maison</b>	I get back home
<b>se brosser les dents</b>	to brush your teeth	<b>je prends le goûter</b>	I have a snack
<b>se deshabiller</b>	to get undressed	<b>je prends le dîner</b>	I have tea/dinner
<b>se coucher</b>	to go to bed	<b>je regarde la télé</b>	I watch TV
<b>je me réveille</b>	I wake up	<b>je fais mes devoirs</b>	I do my homework
<b>je me lève</b>	I get up	<b>je fais la cuisine</b>	I cook
<b>je me lave</b>	I get washed	<b>je fais la vaisselle</b>	I wash up
<b>je me douche</b>	I have a shower		
<b>je m'habille</b>	I get dressed		
<b>je me brosse les dents</b>	I clean my teeth		
<b>je prends le petit-déjeuner</b>	I have breakfast		
<b>je pars pour le collège</b>	I leave for school		

### 2: Reflexive Verbs (present tense)

**Reminder:** Reflexive verbs work in exactly the same as any other verb in French, except they have a **reflexive pronoun** which comes straight after the pronoun. For example:

se laver	to get washed
je <b>me</b> lave	I get washed
tu <b>te</b> laves	you get washed (singular/informal)
il <b>se</b> lave	he gets washed
elle <b>se</b> lave	she gets washed
on <b>se</b> lave	we get washed
nous <b>nous</b> lavons	we get washed
vous <b>vous</b> lavez	you get washed (plural/formal)
ils <b>se</b> lavent	they get washed
elles <b>se</b> lavent	they get washed

To make a reflexive verb negative, we use **ne** and **pas** to make a "negative sandwich" around the verb and the **reflexive pronoun**:  
Je **ne me** lave **pas**! I don't get washed.

### 3: Time Expressions

<b>Adverbs of frequency:</b>		<b>Telling the time:</b>
le matin	in the morning	à at
l'après-midi	in the afternoon	il est it is
le soir	in the evening	midi midday
le weekend	at the weekend	minuit midnight
le lundi	on Mondays	une heure one o'clock
		deux heures two o'clock
après	afterwards	et quart quarter past
d'habitude	usually	et demie half past
parfois	sometimes	moins le quart quarter to
puis	then	
souvent	often	<b>à quatre heures et demie</b>
tous les jours	every day	at half past four
		<b>à six heures moins le quart</b>
<b>de temps en temps</b>	from time to time	at quarter to six
<b>le samedi matin</b>	on Saturday mornings	<b>six heures cinq/dix/vingt</b>
<b>pendant les vacances</b>	during the holidays	5/10/20 past six
		<b>sept heures moins cinq/dix/vingt</b>
		5/10/20 <b>to</b> seven

### 4: Reflexive Verbs (perfect tense)

To form the perfect tense with reflexive verbs, we need to use **être** as the auxiliary verb:

être	to be
je suis	I am
tu es	you are (singular/informal)
il est	he is
elle est	she is
on est	we are
nous sommes	we are
vous êtes	you are (plural/formal)
ils sont	they are (masculine)
elles sont	they are (feminine)

We then have to remember the **reflexive pronoun**, AND to make the past participle "**agree**" with the subject of the verb.

je <b>me</b> suis levé(e)	I got up
elle <b>s'est</b> habillée	she got dressed
ils <b>se</b> sont réveillés	they woke up

### 5: Perfect Tense with être

To use a verb in the perfect tense, you normally need:

A pronoun	Part of avoir	Past participle
j'	ai	mangé
elle	a	bu

Some verbs take '**être**' for step 2 instead of '**avoir**', similar to reflexive verbs.  
*Remember: the past participle with être has to agree.*

A pronoun	Part of être	Past participle
je	suis	allé(e)
nous	sommes	resté(e)s

je <b>suis</b> allé(e)	I went	<b>l'année dernière</b>
je <b>suis</b> arrivé(e)	I arrived	last year
je <b>suis</b> resté(e)	I stayed	<b>la semaine dernière</b>
je <b>suis</b> sorti(e)	I went out	last week
nous <b>sommes</b> allé(e)s	We went	<b>dans le passé</b>
		in the past

### 6: Near Future Tense

Reminder: To form the near future tense, we use the verb **aller** + an **infinitive verb**:

aller	to go	
je vais	I am going	I go
tu vas	you are going	you go
il/elle va	he/she is going	he/she goes
nous allons	we are going	we go
vous allez	you (pl) are going	you (pl) go
ils/elles vont	they are going	they go

**Examples:**  
je vais **jouer** au foot I am going to play football

**The near future of REFLEXIVE VERBS:**  
We use the infinitive of the reflexive verb after **aller** but remember the **reflexive pronoun**:  
je vais **me réveiller** I am going to wake up

**1: UK settlements**

**Hamlet**- a very small settlement with just a group of houses.

**Village**- is also small but may have houses, a primary school, a few shops, a Post Office and a village hall.

**Town** - is larger than a village, with lots of houses, primary and secondary schools, as well as sometimes having a railway station and shopping centre.

**City**- is the largest type of settlement, containing lots of buildings and lots of people. They usually have hospitals, sports facilities, universities, shops, offices, many houses and a cathedral.

**2: UK urban areas**

**Urbanisation** – the growing percentage of people living in towns and cities.

Our urban model is the ‘**Burgess Model**’

**Central Business District (CBD)**- shops, entertainment and offices.

**Inner city** – some of the oldest buildings, traditionally working class areas for the industrial CBD, terraces and high rise flats.

**Suburbs** – created as the city grows, larger semi-detached or detached homes with gardens. Over time retail parks and businesses have developed here.

**3: Urban climates**

**Urban heat island**- an urban area which is warmer than its surrounding rural areas.

The graph shows temperature on the y-axis (20°C to 23°C) and urban zones on the x-axis: Rural, Suburban housing, Retail/commercial, Central Business District, Dense urban housing, Park, Suburban housing, Rural. The temperature peaks in the Central Business District.

**Climate change** makes the urban heat island effect worse.

**Sustainable strategies** can help to reduce the impacts of urban heating.

**4: Halifax’s story – part one**

**Industrialisation** is when a countries economy changes to be focused on factories and manufacturing.

**Slums**- inner city areas where factory workers lived in dirty conditions with lots of diseases.

- People in the UK **migrated** from the **countryside** to live in manufacturing centres like Halifax.
- Industrialisation attracted people to Halifax from **international countries**, with the largest numbers **migrating** from **Pakistan**.

**5: Halifax’s story – part two**

**Primary jobs** – using raw materials e.g. farming, mining, fishing, oil production.

**Secondary jobs** – based in manufacturing e.g. factories, food production, car manufacturers.

**Tertiary jobs**- providing a service e.g. hairdressers, teachers, police, nurses.

- **Deindustrialisation** is the decline of the manufacturing industry due to competition from **abroad**.
- **Regeneration** is when an urban area is **improved** to create new homes, jobs and entertainment opportunities.

**6: Fieldwork**

**Geography fieldwork** -the process of observing and collecting data about people and natural environments.

**Environmental quality surveys** are used to assess the look and feel of a place.

**Transect line**- the line along which data is collected e.g. from the CBD to the top of Tuel Lane.

**Sampling** - collecting data from some sites or people in order to get a perspective on the population.

1 – Tsarist Russia	2 – Troubles for Russia	3 – Russia 1905 to 1917
<ul style="list-style-type: none"> <li>Tsar Nicholas II was a weak leader who was distracted by his ill heir; his son Alexei suffered from haemophilia.</li> <li>Nicholas ruled over 126 million people. Of which, 125 million were poor.</li> <li>80% of the Russian population were peasants.</li> <li>Russia was an enormous country, 4,000 miles from east to west with 11 different time zones.</li> </ul> <p><b>Key Date:</b> <b>1894</b> – Nicholas II becomes the Tsar of Russia.</p> <p><b>Language of the Lesson:</b> <b>autocrat</b>- a ruler who has complete power <b>Tsar</b>– the title given to the emperor of Russia</p>	<ul style="list-style-type: none"> <li>Russia wanted to expand its empire to the east because it was rich in resources and had ice-free ports.</li> <li>Tension grew between Russia and Japan in the Manchurian area.</li> <li>Grigori Rasputin was a mystical man who claimed to have healing powers. He influenced the monarchy.</li> </ul> <p><b>Key Dates:</b> <b>26<sup>th</sup> January 1904</b>- Japan launch a surprise attack on Russian ships at Port Arthur. <b>1905</b> – the Japanese defeated Russia and signed the Treaty of Portsmouth.</p> <p><b>Language of the Lesson:</b> <b>negotiation</b> – a formal discussion between groups with different aims <b>haemophilia</b> – a serious medical condition</p>	<ul style="list-style-type: none"> <li>By 1905 many people were unhappy and organised strikes and protests, marching on the Winter Palace.</li> <li>The Tsar made promises to improve Russia including creating a Duma (the Parliament).</li> <li>Russia suffered heavy losses in the First World War (FWW), with over 2 million dead.</li> </ul> <p><b>Key Dates:</b> <b>January 1905</b> – Bloody Sunday, peaceful protest turned violence with 200 killed in St. Petersburg. <b>1<sup>st</sup> August 1914</b> – Russia joins the FWW. <b>1<sup>st</sup> March 1917</b> – The Tsar abdicates</p> <p><b>Language of the lesson:</b> <b>revolution</b> – an attempt to overthrow the government <b>abdicate</b> – when a monarch gives up their position</p>
4 – The Provisional Government	5 – The Russian Revolution	6 – Stalin’s Russia
<ul style="list-style-type: none"> <li>The FWW had put incredible pressure on Russia forcing the Tsar to abdicate.</li> <li>The Provisional Government was weak.</li> <li>The Bolsheviks were able to gain popularity by openly criticising the government; they promise ‘Peace, bread and land’.</li> </ul> <p><b>Key Dates:</b></p> <ul style="list-style-type: none"> <li><b>1912</b> – Lenin became the leader of the Bolshevik Party in Russia.</li> <li><b>March 1917</b> – A provisional government is formed who continue in the FWW.</li> </ul> <p><b>Language of the Lesson:</b> <b>communism</b>- A society where everything is shared equally <b>provisional</b>- Something that is temporary</p>	<p><b>Key Dates:</b> <b>July 1917</b> – The Bolsheviks try to seize power but are defeated. <b>August 1917</b> – General Kornilov leads a revolt against the government who ask the Bolsheviks for help. <b>October 1917</b> – Bolsheviks seize power and becomes known as the October Revolution. Trotsky joins the Bolsheviks. <b>1918-21</b> – The Russian Civil War raged between the Reds (Bolsheviks) and the Whites. The Reds won.</p> <p><b>Language of the Lesson:</b> <b>decree</b>– an official order. <b>civil war</b> – a war fought between different sides from the same country.</p>	<ul style="list-style-type: none"> <li>Stalin had been waiting for his opportunity to seize power.</li> <li>He started the NKVD (secret police) to purge and execute people.</li> <li>Forced labour camps called gulags were established.</li> <li>It is believed Stalin was responsible for 48 million deaths.</li> </ul> <p><b>Key Dates:</b> <b>1924</b> – Lenin dies. <b>1929</b> – Trotsky was exiled and Bukharin was expelled then executed. <b>1929</b> – Stalin becomes Supreme Leader of the USSR.</p> <p><b>Language of the Lesson:</b> <b>terror</b>– causes strong feelings of fear</p>

**1. Times Tables**

$7 \times 1 = 7$	$7 \times 7 = 49$
$7 \times 2 = 14$	$7 \times 8 = 56$
$7 \times 3 = 21$	$7 \times 9 = 63$
$7 \times 4 = 28$	$7 \times 10 = 70$
$7 \times 5 = 35$	$7 \times 11 = 77$
$7 \times 6 = 42$	$7 \times 12 = 84$

**2. Angles in Parallel Lines and Polygons**

**Parallel lines** - lines that always stay the same distance apart

**Transversal** - a line that cuts through parallel lines

**Corresponding angles** - angles of equal size and are on the same side of the transversal

**Alternate angles** - angles of equal size and are on different sides of the transversal, and the parallel lines. They sit on the inside of the parallel lines

**Co-interior angles** - angles on the same side of the transversal and are in between the parallel lines.

**Polygons** - 2D shapes made up only of straight sides

**Interior angles** - angles inside of a shape at the vertex

**Exterior angles** - form a straight line with the interior angle

**3. Properties of Quadrilaterals**

**Regular polygons** - have sides of equal lengths and equal angles

**Rhombus** - a quadrilateral which has two sets of parallel sides which are all of equal length

**Parallelogram** - a quadrilateral which has two sets of parallel sides that are two different lengths

**Trapezium** - a quadrilateral that has one set of parallel sides

**Kite** - a quadrilateral which has two sets of equal sides which are not parallel

**Delta** - a type of kite with one interior reflex angle

**Isosceles** - means having only two sides of equal length

**Diagonals** - join opposite vertices

**4. Area of Trapezia and Circles**

**Formula** - a mathematical relationship or rule expressed with symbols

**Perpendicular height** - forms a 90 degree angle with the base of a shape

**Compound shapes** - are made up of two or more shapes

**Radius** - the distance from the centre to the edge of the circle

**Diameter** - the distance from one part of the circumference to another, passing through the centre

**Sector** - an area within a circle enclosed by two radii and an arc

**5. Line Symmetry and Reflection**

**Lines of symmetry** - lines that cut shapes into two mirror images

**Horizontal** - lines are flat lines that run from left to right

**Vertical** - lines are perpendicular to horizontal lines and run up and down

**Reflection** - When each point of a shape is of the same distance from a mirror line

**Congruent** - shapes that are exactly the same size. They have equal sides and angles but may have a different orientation

**Vertex** - a corner where two or more line segments meet. A vertex can be on a 2D or 3D shape

**Perpendicular distance** - the distance a shape is from the mirror line when measured at 90 degrees

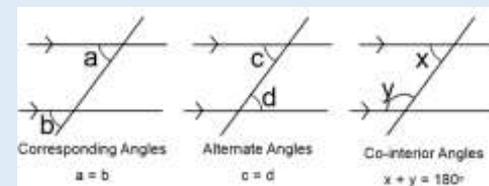
**6. Facts to Remember**

Sum of the interior angles in a polygon =  $(n - 2) \times 180$ , where n is the number of side

Exterior angles on a regular polygon =  $\frac{360}{n}$ , w

Area of a trapezium =  $\frac{1}{2}(a + b) \times h$ , where a and b are the parallel sides and h is the height

Area of a circle =  $\pi r^2$ , where r is the radius



**1: African drumming techniques**

**timbre:** the quality of sound allowing us to tell sounds apart



**Djembe**



**Talking Drum**



**DunDun**



**Gourd**

**2: Building textures**

**cyclic rhythm:** rhythms which are repeated over and over

**texture:** different layers of sounds

**polyphonic:** many sound playing at the same time

**polyrhythm:** many rhythms playing at the same time

**pulse:** the steady beat in music

**3: Exploring syncopation**

**syncopation:** the emphasis on the weak beat of the bar. Sounds off-beat.

**regular rhythms:** rhythms that are played on the beat.

**strong beat:** the prominent beats of the bar these are beats 1 and 3 when performing 4 beats per bar.

**unison:** when everyone performs the same notes/rhythm at the same time.

**4: Exploring call and response**

**call and response:** a musical conversation between a single performer and a group of performers.

**Master Drummer:** the lead drummer in an African drumming circle. The person responsible to indicate the different sections of the music.

**improvisation:** the spontaneous and creative performance of music.

**ensemble:** three or more musicians playing together

**5: Composing African inspired music**

**structure:** how different sections of music are put together

**accelerando:** speeding up

**decelerando:** slowing down

**dynamics:** the volume

**6: Dynamics**

Dynamic Sign	Italian	English
<i>ppp</i>	<i>pianississimo</i>	Very, very soft.
<i>pp</i>	<i>pianissimo</i>	Very soft.
<i>p</i>	<i>piano</i>	Soft.
<i>mp</i>	<i>mezzo piano</i>	Moderately soft.
<i>mf</i>	<i>mezzo forte</i>	Moderately loud.
<i>f</i>	<i>forte</i>	Loud.
<i>ff</i>	<i>fortissimo</i>	Very loud.
<i>fff</i>	<i>fortississimo</i>	Very, very loud.

### Box 1 - Christian birth rituals

**Baptism** has been a symbolic way of joining **the Church** from the very start of Christianity. Water is used in baptism, and is a symbol of washing away sin and the start of a new life.

Many **denominations** baptise infants. Although ceremonies are similar, there are some important differences between them.

During the infant baptism ceremony:

- there are readings from the **Bible**
- the parents and godparents take vows, renounce **Satan** and evil and profess their faith and the faith they want the baby to be brought up in
- water is poured over the baby's head as the **minister** says: I baptise you in the name of the Father and of the Son and of the Holy Spirit.
- for the ceremony, parents may dress their baby in a special white garment.

### Box 2 – Hindu birth rituals

In some Hindu families, just after the birth of a child, the sacred syllable **aum** is written on the baby's tongue with honey. The name of God in a form the family holds dear.

#### The Fifth Samskara - Namkaran (name giving ceremony)

In some Hindu families, 40 days after birth, the baby is taken to the community **mandir** for a naming ceremony. The father offers **ghee**-soaked wood on the fire. After announcing the baby's name, the priest pours holy water onto the baby's head and puts a few drops of **amrit** on the baby's tongue.

In some families, the father might seek blessing from the family god or goddess by placing the baby's horoscope before the **murti**. In others, the father's sister has the job of choosing the name from a selection the parents have written down.

### Box 3 – Christian death rituals

Christian death rites focus on the **resurrection** of Jesus and the promise of eternal life for all believers.

- The body of the deceased person will be either buried or **cremated**. Christians believe in the resurrection of the body, but do not feel that the disposal of the body limits God's power to raise the dead to eternal life.
- The **coffin** is met at the door of the church or chapel.
- A prayer and reading from the **Bible** is said with the focus on the hope of resurrection and the love of God.
- Someone may give a **eulogy** for the deceased..
- If the body is buried, mourners may be invited to put a handful of soil into the grave.
- **Roman Catholics** and **Anglicans** may sprinkle the grave with holy water.

### Box 4 – Sikh death rituals

After death a Sikh's body is **cremated**. A memorial is not usually created, instead, the ashes of the deceased are immersed in a river either in India or in another country where they were living. Sikhism teaches that the **soul** has moved on and if God wills it, people will be reunited in God's love.

Many Sikhs believe that death is just a short sleep before **rebirth** and that everyone must remember **Waheguru** in the hope of escaping rebirth and reaching **liberation** from **reincarnation**.

In India the funeral often occurs on the day of death or on the following day. In western countries there is a longer period before cremation.

The deceased's family and friends often go to the gurdwara from the crematorium. Here relevant passages of the **Guru Granth Sahib** are read, followed by **langar**

## Box 5 – Hindu death rituals

Death rites vary from family to family and also according to which type of Hindu tradition is followed. The region of India a family comes from will also have an impact on what happens when a Hindu dies. In some communities, relatives wash their body and clothe it in white garments. They may put a few drops of water from the **River Ganges** into the mouth of the deceased to help **purify** them.

In India, relatives may carry the corpse on a stretcher to the funeral **pyre** that is near a river before the next sunrise or sunset and traditionally, the eldest son lights the funeral pyre. In the UK, many Hindu families have the body **cremated** as soon as reasonably possible at a **crematorium**.

During the funeral ceremony, the priest and the mourners may recite verses from **scripture** and **mantra**. Most Hindus would say they are grieving for the person they knew, not the **atman**, which they believe will be **reincarnated**.

After the death of a loved one, some Hindus perform **Shraddha**. Offerings are made to family gods and goddesses to help the atman of the deceased to move on. Some Hindus believe the atman remains around loved ones while they grieve, so Shraddha symbolises an end to mourning. Some Hindus give gifts in charity on behalf of the departed loved one.

## Box 6 – Key vocabulary

**Deceased**

People who have died

**scripture**

writing from the Bible

**purify**

become clean

**crematorium**

a place where people's bodies are cremated (burned)

**Waheguru**

Sikh God

**murti**

image of a god

**Baptism**

Christian birth ceremony



## Leadership qualities

### Qualities and skills of good leadership:

**Imaginative** – showing creativity, for example having innovative activity ideas.

**Flexible** – able to change and adapt, for example having a wet weather plan in the event of rain or being able to ‘think on your feet’.

**Organised** – well prepared, for example completing a session plan prior to the session.

**Good communicator** – being able to get a message across, for example projecting the voice so that all can hear.

**Confident** – believing in own abilities, for example not doubting yourself when in front of a group

**Motivator** – promotes interest and enthusiasm, for example picking up team morale when they are losing or starting to fatigue.

**Reliable** – consistently performs well and is trusted, for example always arriving to sessions on time and doing a good job each time.

## STEP Principle

			
SPACE	As a leader you must consider the space you are working in because it needs to be safe and the correct size for the group and the activity.	Use of lines in the space is good as it allows the leader to use them as markers.	If the space is cluttered with loose equipment, it becomes dangerous.
TASK	As a leader you must know the task you are delivering. This will come from planning, using your own ideas and knowing what your activity will look like beforehand. You must be organised with equipment and communicate your instructions well.	Plan a session beforehand so you know the activities you would like the group to do.	If the task is not challenging for the group they will get bored.
EQUIPMENT	As a leader you must know what equipment you need for your session. You must use the group to help set up and pack away and you must control the group when they have equipment.	The equipment needs to meet the group’s ability. E.g. size 3 football for under 9s.	Broken equipment can be unsafe and pose a risk
PEOPLE	As a leader you must know how to manage people. You must be able to split a group into teams fairly, efficiently and without bias. You must be able to manage the group during the activity and maintain a fun environment with everyone on task.	Splitting up people in terms of their ability can enable them to be challenged	Having favourites and only listening to certain people in the group is not inclusive and could lead to upset.

**1: Biology: Food Chains**

<b>biomass</b>	the total mass of the organic matter of an organism
<b>producers</b>	organisms that produce their own food via photosynthesis
<b>consumers</b>	organisms which consume other organisms for energy
<b>predator</b>	an organisms that hunts
<b>prey</b>	an organisms which is hunted
<b>herbivore</b>	an organisms which only feeds on plants
<b>carnivore</b>	an organism which feeds on consumers
<b>omnivore</b>	an organism which feeds on producers and consumers

**3: Chemistry: Reactivity Series**

<b>reactivity</b>	the tendency for a substance to undergo a chemical change
<b>inert</b>	very unreactive
<b>displacement reaction</b>	when a more reactive metal displaces a less reactive metal from a compound
<b>observation</b>	what can be seen happening (in a chemical reaction)
<b>fizzing effervescence</b>	the production of a gas from within a solution

**5: Physics: Electrical Circuits**

<b>circuit</b>	a complete loop which allows an electric current flow
<b>series</b>	a circuit with one loop through which current flows
<b>current</b>	the rate of flow of charge
<b>ammeter</b>	a device, connected in series, which measures the current in a circuit
<b>potential difference</b>	a measure of the difference in energy between two parts of a circuit measure in volts (V)
<b>voltmeter</b>	a device, connected parallel to a component, which measures potential difference

**2: Biology: Food Webs and Bioaccumulation**

<b>pyramid of numbers</b>	a graphical representation of the number of organisms in a food chain
<b>ecosystem</b>	all the living and non living organisms in an environment
<b>trophic level</b>	the organisms position within a food web or food chain
<b>biodiversity</b>	the variety of different organisms in an ecosystem
<b>food web</b>	how the food chains links
<b>food security</b>	how much food is available and how easy it is to access it

**4: Chemistry: Materials**

<b>extraction</b>	removing a metal from its ore
<b>ore</b>	a rock containing metal compounds
<b>metal oxide</b>	a compound containing metal and oxygen
<b>carbon</b>	a non-metal used to extract less reactive metals from ores
<b>ceramic</b>	a hard, brittle, waterproof material
<b>polymer</b>	materials made from lots of smaller units (monomers) used for plastics

**6: Physics: Resistance**

<b>resistance</b>	how much the wires and components reduce the flow of charge (current)
<b>ohms (Ω)</b>	the unit of measure for resistance
<b>resistance (Ω) = potential difference (V) ÷ current(A)</b>	
<b>variable</b>	a factor which could affect experimental results

## 1: Protein

**Needed for muscle growth and body repair. Any left is used as a secondary source of energy.**

Made up of building blocks called **Amino Acids**. 20 are needed by our body – 10 can be made by our body – the remaining 10 are sourced from the food we eat (these are called essential amino acids)

There are two types- **HBV (High Biological Value) and LBV (Low Biological Value)**.

Essential Amino Acids are known as High Biological Value Proteins. HBV proteins are mainly found in meat, fish, eggs and dairy products. If you are a vegan, it can be difficult to source the amount of amino acids needed for a balanced diet.

Proteins from plant sources are missing at least one of the essential amino acids – these are known as Low Biological Value Proteins (LBV) so a variety of these should be eaten together – this is known as protein complementation

## 2: Fat

**We need this for energy, to protect our vital organs, to insulate our body and to provide the fat soluble vitamins A D E & K.**

**There are two types- saturated & unsaturated.**

**Saturated fats** come mainly from animals and are high in cholesterol which is bad for our heart as it can clog our arteries and can cause long term health problems

**Unsaturated fat** comes mainly from plant sources such as nuts and oils and is lower in cholesterol which makes it a healthier choice.

We should aim to eat mainly unsaturated fats from sources such as nuts and oils.

Saturated fats can clog our arteries and cause long term health problems, such as Type 2 diabetes and strokes.

## 3: Carbohydrates

**We need these for energy. There are two types- simple and complex.**

**Simple carbohydrates** are mainly sugars which can lead to long term health problems such as tooth decay, obesity and type 2 diabetes. They give us a quick burst of energy but leave us feeling hungry.

**Complex carbohydrates** are starch foods such as bread, rice, pasta and potatoes.

We should try and eat mainly complex carbohydrates as these give us more fibre and our bodies find them harder to break down, so the energy lasts longer keeping us feeling fuller for longer.

**Dietary fibre** is very important in the diet as it keeps our digestive system working healthily and prevents complications such as constipation or more seriously cancer of the bowel.

Foods high in dietary fibre are wholemeal bread, rice and pasta, jacket potatoes, baked beans, fruit and vegetables and high fibre breakfast cereals such as Shreddies, Weetabix, Shredded Wheat

## 4: Micronutrients

## 6 – Evaluation

	Name	Function	Sources
Nutrients that we need in small amount in our diet	<b>Vitamin A (fat soluble)</b>	normal growth of children, to see in dim light	oily fish, dairy foods, carrots, green veg
	<b>Vitamin B</b>	allow the body to get energy from food	wholemeal cereals, meat, marmite
	<b>Vitamin C</b>	clear skin, healing of wounds. Healthy teeth and gums, prevents infections	berries and citrus fruit, tomatoes, potatoes, green vegetables
	<b>Vitamin D</b>	works with calcium to form strong bones and teeth	oily fish, margarine, eggs, sunshine
Minerals include calcium, iron, fluoride, zinc, phosphorous and magnesium,	<b>Calcium</b>	Works with vitamin D to make strong bones and teeth and needed for the clotting of the blood	milk, cheese, yoghurts, fish bones e.g. tinned salmon, added to white bread by law
	<b>Iron</b>	needed to form red blood cells which carry oxygen to all parts of the body	red meat, green vegetable

**Jardinière** - Baton cut. Used with dips.

**Macédoine** - Diced Jardiniere (cube).

Should be approx 1cm cube. Ideal for use in casseroles etc

**Julienne** - Matchstick sized pieces.

Ideal for use in noodles and stir fry

**Brunoise** – Cubed. julienne

sometimes called a fine dice. Should be approx ½ cm cube. Ideal to use as a base for sauces.

**Paysanne** - Any regular slice through the vegetable. Used in soups and as garnish.

**Chiffonnade**- Another word for shredded vegetables, used in coleslaw.



1 – Specification and Design Briefs	2 – Designing and Biomimicry	3 – Tools/Equipment
<p><b>Design Brief</b> – Short statement given to the designer that outlines what the product should be like.</p> <p><b>Design Specification</b> – A list of criteria that the product needs to address.</p> <p><b>Client</b> – A person or organisation that wants a product manufactured.</p> <p><b>Consumer</b> – A person who uses a product and may also buy it.</p> <p><b>Target Market</b> - The group of people a product is made for.</p>	<p><b>Biomimicry</b> – using nature to inspire design and to solve design problems.</p>  <p>The Kingfisher bird inspiring a Japanese 'bullet' train and Percy Shaw's 'cat's eyes' are examples of biomimicry.</p> <p><b>Isometric drawing</b> - A way of presenting designs in 3D.</p> <p><b>Dimensions</b> - The measurement of the length, width, or height.</p>	<p><b>Tenon Saw</b> – A hand saw for cutting straight lines in wood.</p> <p><b>Coping Saw</b> – A hand saw for cutting intricate lines in wood.</p> <p><b>Band Facer</b> – A machine that uses sandpaper to shape wood.</p> <p><b>Pillar Drill</b> – A machine fixed in place that can drill holes in to material.</p> <p><b>Bench Hook</b> – A piece of equipment used to hold material against whilst working on it</p>
4 – Tools/Equipment	5 – Materials	6 – Evaluation
<p><b>Scroll Saw</b> – A machine that can be used to cut intricate lines into material.</p> <p><b>Isometric drawing</b>– A way of presenting designs in 3D.</p> <p><b>G-Clamp</b> – A tool used to hold work firmly in place without assistance.</p> <p><b>Abrasive paper</b> – Material or paper with grains of abrasive material glued on to it.</p> <p><b>Adhesive</b> – A substance that is used to bond (glue) objects together.</p>	<p><b>Manufactured board</b>– Sheet material formed by gluing together wood particles or layers. Eg. MDF.</p> <p><b>Plywood</b> – A manufactured board made from wood veneers that are glued together in adjacent layers.</p> <p><b>Veneer</b> – A thin layer/sheet of wood.</p> <p><b>PVA Glue</b>– A water based, non-toxic, adhesive. Good for general use on porous materials, such as wood and fabric.</p> <p><b>MDF</b>– A manufactured board that is made from compressed and glued together wood fibres. It is often used in flatpack furniture (IKEA).</p>	<p>In Design Technology we often have to analyse products or evaluate our own designs. To do this we can use the acronym '<b>ACCESSFM</b>'.</p> <p><b>A</b> – Aesthetics  <b>C</b> – Cost  <b>C</b> – Customer  <b>E</b> – Environment  <b>S</b> – Size  <b>S</b> – Safety  <b>F</b> – Function  <b>M</b> – Material</p>