

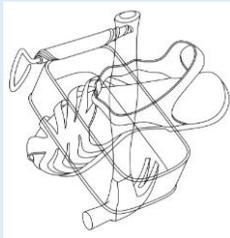
### 1 – Definitions

**Line drawing:** a drawing done using only lines, without blocks of shading.

**Blind drawing:** drawing without looking at your paper

**Continuous line drawing:** drawing in one single line without lifting your pen of the paper.

**Texture:** The way something feels to the touch. Texture is shown in drawing using mark-making.



### 2 – Michael Craig- Martin

Sir Michael Craig-Martin was born in 1941 in Ireland. He was educated in United States and now lives in London.

His work shows everyday objects with precise, bold outlines and flat planes of vibrant colours. The objects often overlap and are juxtaposed in unusual ways.



Above: *Eye of the storm* (2003)

### 3 – Definitions

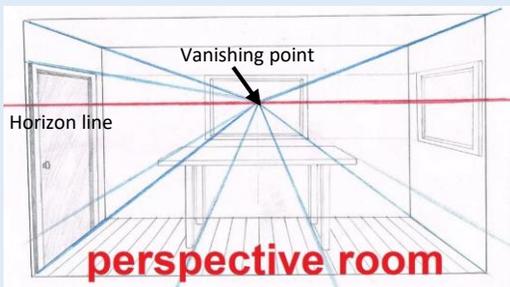
**Perspective:** the representation of three-dimensional objects or spaces in two dimensional artworks. Artists use perspective techniques to create a realistic impression of depth.

**One point perspective:** perspective drawing that uses one point in the distance from which everything in the drawing is set out.

**Vanishing point:** the point at which parallel lines viewed in perspective appear to converge.

### 4 – Drawing a one point perspective

1. Draw a horizon line.
2. Place a vanishing point on the horizon line.
3. Draw a box to represent the building or space you want to draw.
4. Draw lines from all four corners back to the vanishing point.



### 5 – Vincent Van Goth

Vincent Van Goth (1853 – 1890) was a Dutch painter who became one of the most famous figures in Western art after his death.

He created about 2,100 artworks, including around 860 oil paintings. This includes landscapes, still lifes, portraits and self-portraits. This work shows bold colours and dramatic and expressive brushwork.

He was not commercially successful in his life time, and his suicide at 37 came after years of mental illness, depression and poverty.

### 6 – Vincent Van Goth

*Bedroom in Arles* (1890), is one of Van Goth's best known paintings.

It was also one of the artist's personal favourites.

The painting shows bold colours, expressive brush strokes and a simply furnished room.

The painting shown here is actually one five versions: three oil on canvas and two sketches.



### 1: Hello World

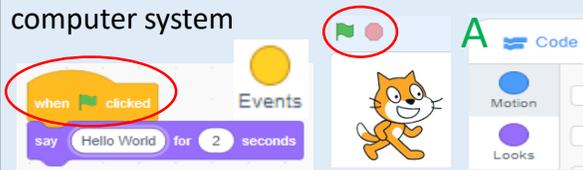
**Graphical User Interface (GUI):** a way to control a software application or hardware device using icons and graphics

**(A) Menu:** A list of options a user can choose from when using software.

**Icon:** A picture or graphic used on a computer screen to help navigate the system

**Sprite:** A 2D graphic, for example to represent a character in a game.

**Event:** An action triggered by a user of the computer system



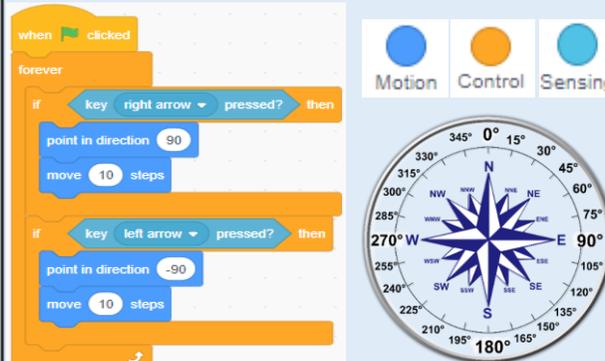
### 2: Selection and Movement

**Selection:** to choose and do something

**If, then:** to check a choice made and then execute, carry out the assigned code.

**Direction:** the position to look or move to.

**Degrees:** e.g. a compass 90 degrees (right).



### 3: Iteration

**Iteration:** the action of repeating something

**Code:** a set of instructions to be carried out by a computer to perform a specific task.

**(A) Count Controlled Loop:** repeats the code instructions, X (the count), number of times.

**(B) Condition Controlled Loop:** repeats the code until told not to (the condition).

**(C) Infinite (Forever) Loop:** keeps repeating the code constantly until the main program stops.



### 4: Variables, Scoring

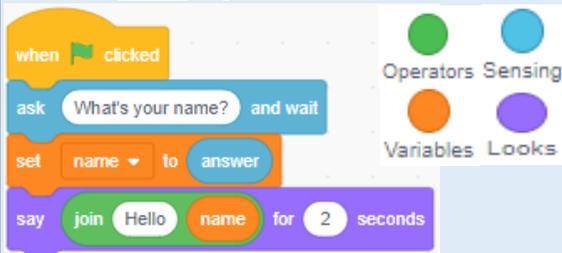
**Variable:** A memory location usually in RAM (post box) to store, read or update using code.

**String:** data stored as text e.g.. "abc"

**Integer:** data stored as a whole number e.g. 1,2

**Float, real:** data stored as a decimal e.g. 1.2

**Meaningful naming:** for example calling a variable score e.g. the data contains the score.



### 5: Logic

> Greater than

= Equals

< Less than

+ Addition

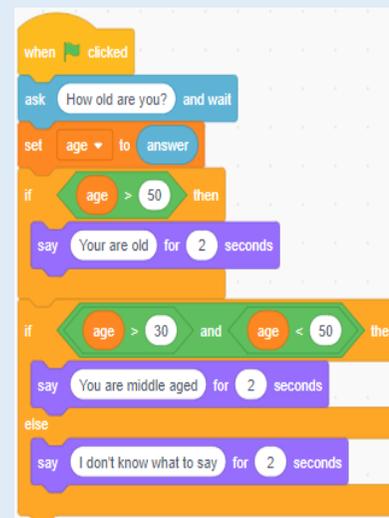
- Subtract

\* Multiply

/ Divide

**AND:** Two items have to be true

**OR:** Only one item needs to be true



### 6: Create, Comment and Test

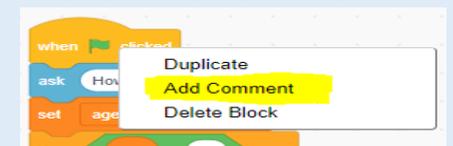
**Debug:** To look at broken code that is not doing what is expected, diagnose and fix.

**Syntax:** Making sure the code used is correctly formatted. Usually all in lowercase

**Error:** Something preventing a program from working.

**Screenshot:** To take a picture of code to help with development and debugging.

**Code comments:** Remembering or sharing code, with comments makes it easier to understand.



### 1: Naturalism

- Naturalism gives the illusion of real life presented on stage.
- It aims to be an accurate representation of ordinary people in believable situations.
- Stanislavski invented a 'System' of techniques that can be used to produce a naturalistic performance, which includes **emotion memory**.
- **Emotion memory** is when the actor finds a real past experience where they felt a similar emotion to that demanded by the role they are playing. They then 'borrow' those feelings to bring the role to life.

### 2: Given Circumstances

The given circumstances are the information about the character that you start off with and the play as a whole.

- *How old is the character?*
- *What's their situation in the play and in relation to the other characters?*
- *Are there any notes provided about the play and its characters?*

Such notes and stage directions may not tell you everything you need to build a character but they are a starting point.

### 3: The Magic If

- **The Magic If** is used to get actors to open up their imaginations in order to discover new and interesting things about the character they are playing.
- Stanislavski said that the character should answer the question, 'What would I do if I was in this situation?'
- This technique means that the actor puts themselves into the character's situation.
- This then stimulates the motivation to enable the actor to play the role.

### 4: NVC Skills

**Non Verbal Communication (NVC)** relates to the way movements, posture and gestures can show how someone feels without speaking.

**facial expression:** the appearance, mood or feeling conveyed by a person's face

**posture:** the position a character holds themselves in when sitting or standing

**gesture:** a movement made by part of the body (e.g. arms, head) to convey a character's emotions

**gait:** a person's manner of walking

## 5: Vocal Skills

- **Pitch:** the degree of highness or lowness of the voice
- **Pace:** the speed at which someone speaks
- **Tone:** a quality in the voice that expresses the speaker's feelings or thoughts
- **Volume:** the degree of loudness or the intensity of a sound

## 6: Performance Skills

To ensure that you give an effective performance in the style of Stanislawski, the skills and points below should be incorporated:

- **Stanislawski's Techniques (Boxes 1 to 3)**
- **NVC—Non Verbal Communication (Box 4)**
- **Vocal Skills (Box 5)**
- **remain in character**
- **don't turn your back on the audience**

### Oracy Focus

**oracy:** the ability to express oneself fluently and grammatically in speech

**volume:** ensure that your voice reaches everyone in the audience

**clarity:** ensure that you speaking clearly

**pace:** ensure that your pace of speech is appropriate to your character

1. Vocabulary

**multicultural (adj.):** consisting or relating to people of many different nationalities and cultures

**dignity (noun):** the state or quality of being worthy of honour or respect

**prejudice (verb):** to judge and/or treat others differently because of their race/gender/religion

**adversity (noun):** a very difficult or unfavourable situation

**to empower (verb):** to give or delegate power or authority

2. Terminology

**enjambment:** the running of a sentence from one line of verse into the next

**caesura:** a break or a pause in a line of verse

**stanza:** one of the parts into which a poem is divided

**sibilance:** a literary device that relies on the repetition of soft constant sounds, like 's' or 'sh', in words to create a whooshing or hissing sound

**metaphor:** a figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable

3. Context

**Still I Rise by Maya Angelou:**

- Maya Angelou was an African American poet, singer, memoirist, and civil rights activist.
- She was born in 1928 in St Louis, Missouri, in the American South.
- She wrote often about themes of race, prejudice, discrimination and overcoming adversity.

**Hollow by Vanessa Kisuule:**

- Vanessa Kisuule is a black British poet from Bristol, in the south of England.
- She wrote 'Hollow' in response to the destruction of the Edward Colston in June 2020 in Bristol.
- Edward Colston was a slave trader who profited from the enslavement of African-Americans in the 19<sup>th</sup> century.

**Straddling the Line - Suhaiymah Manzoor-Khan**

- Suhaiymah is a Bradford-born British Muslim poet, who is very successful on the 'slam' (live) poetry circuit.
- Her poem is about resisting prejudice and stereotyping others, or being stereotyped.

## 4. Grammar: Main and Subordinate Clauses

A **clause** is one or more phrases linked to a verb that work very tightly together, and forms part of a sentence.

A **main clause** is able to stand alone, however a **subordinate** clause cannot.

**For example:**

*As the audience applauded, the singer walked onto the stage.*

The first part of the sentence, ‘*As the audience applauded*’, is a **subordinate clause** because it does not make sense by itself.

The second part of the sentence, ‘*the singer walked onto the stage*’ is the **main clause** because it does make sense by itself.

## 5. Poetry

**What is the purpose of a poem?**

- A poem is a collection of spoken or written words that **expresses ideas or emotions** in a powerfully vivid and imaginative style.

**What does a poem look like?**

- A poem can take various **forms**. The form of a poem refers to **line lengths, rhythms** and patterns of **rhyme**.
- It includes both how the poem looks on the page and how it sounds when read aloud.
- The **stanzas** in a poem are like paragraphs in prose. They separate ideas and give shape, and guide the reader through the poem.

**What is the narrative of a poem?**

- The **narrative** of a poem refers to the story or message that the poet is trying to convey.

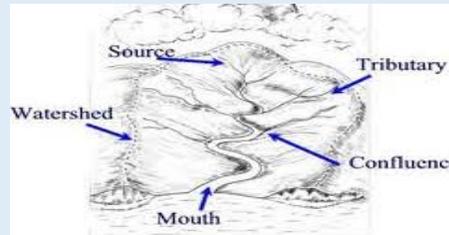


**1: Water Cycle**

- Water on Earth is **constantly moving**. It is recycled over and over again. This recycling process is called the water cycle.
- 1. Water evaporates into the air**  
The sun **heats up** water on land, in rivers, lakes and seas and turns it into water vapour. The water vapour rises into the air.
- 2. Water vapour condenses into clouds**  
Water vapour in the air **cools** down and changes back into tiny drops of liquid water, forming clouds.
- 3. Water falls as precipitation**  
The clouds get **heavy** and water falls back to the ground in the form of rain or snow.
- 4. Water returns to the sea**  
Rain water runs over the land and collects in lakes or rivers, which take it **back to the sea**. The cycle starts all over again.

**2: Drainage basin**

- Drainage basins:** the area of land drained by a major river and its tributaries.
- The drainage basin is regarded as a closed system because water never leaves.
- Watershed:** the edge of the drainage basin
- Source:** the start of a river (usually high relief)
- Mouth:** the end of a river (low relief)
- Confluence:** the point where 2 rivers meet.
- Tributary:** a smaller river joining the main one.

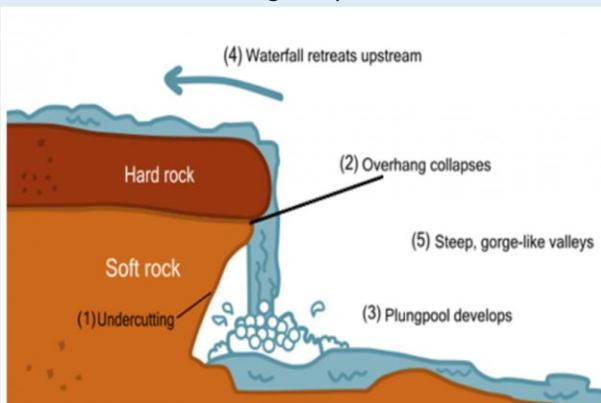


**3: Long profile**

- Long profile:** shows the gradient of a river as it journeys from source to mouth. It spans the source of a river and the mouth.
- It is separated into three different river courses.
- Upper course:** is found in an area of high relief. Water trickles from saturated land and merges to form a channel. In the upper course, there may be rapids and waterfalls as the river flows through steep V-shaped valleys.
- Middle course:** is further downstream and the relief is usually hilly. The gradient of the long profile becomes more concave as the vertical erosion reduces.
- Lower course:** is closest to the mouth of the river where the land is low-lying. The gradient is almost flat due to the lack of vertical erosion.

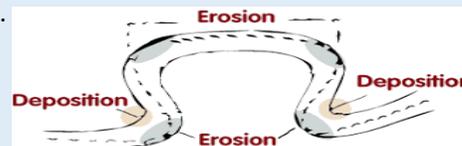
**4: Waterfalls**

- Waterfall:** an area where water flows over a vertical drop or a series of steep drops in the upper course of a stream or river.
- Erosion:** the wearing away of rock.



**5: Meanders**

- Meander:** a bend in the river
- Deposition:** the dropping of sediment
- Transportation:** the moving of sediment
- As the river erodes laterally, to the right side then the left side, it forms large bends.
- The force of the water **erodes** and undercuts the river bank on the outside of the bend where water flow has most energy due to decreased friction.
- On the inside of the bend, where the river flow is slower, material is **deposited**, as there is more friction.



**6: How are rivers important to us in the UK?**

- Importance:** the value something has
- Economic:** relating to money or jobs
- Development:** grow and become more mature, advanced, or elaborate.
- In the UK humans use rivers for irrigation in agriculture, for drinking water, like swimming and boating. for transportation, to produce electricity through hydroelectric dams, and for leisure activities
- Rivers can also cause damage to us as well. When a river floods it can damage buildings, roads, parks, wildlife, and cost a lot of money to repair.
- However, human use rivers in a negative way as well. They use them for dumping chemical or domestic waste, littering, and leisure activities, which may pollute the water and disrupt wildlife.

### 1 – Long Term Causes

There were four **M-A-I-N** long-term causes of the First World War:

- **Militarism** - building strong military forces to prepare for war
- **Alliances** – agreements between countries to aid and protect one another. **The Triple Alliance** included: Germany, Austria and Italy. **The Triple Entente** included: France, Britain and Russia.
- **Imperialism** – when countries build up their empires by taking over other countries.
- **Nationalism** – having pride in your country and believing it is better than others.

#### Language of the Lesson:

**cause** – the reason for something happening

**long term** – occurring over, or relating to, a long period of time

### 2 – Short term causes

#### 1914 - Steps to War:

|         |  |
|---------|--|
| 28 June | The Austrian Archduke Franz Ferdinand was assassinated by Serbian terrorists on a visit to Bosnia. |
| 5 July  | Germany promised total support for Austria-Hungary.  |
| 28 July | Austria – Hungary declared war on Serbia.  |
| 30 July | Russia mobilised her army (to help Serbia).  |
| 3 Aug   | Germany invaded neutral Belgium.   |
| 4 Aug   | Britain declared war on Germany  |

### 3 – Outbreak of War

- The Schlieffen Plan was a German plan to avoid crossing the French border by going through Belgium.
- The Germans planned to defeat France in 6 weeks whilst the Russian army tried to mobilise.
- Surprisingly, the neutral Belgian forces stopped the German army. This gave time for Britain join the war.
- A stalemate occurred as both armies began to dig trenches for the winter – this is where they stayed for 4 years.

#### Key Date:

**3 August 1914** – the German Army launched the Schlieffen plan

#### Language of the Lesson:

**mobilised** – to get an army ready

### 4 – Trench Warfare

- On the Western Front (in Europe), the Triple Alliance and Triple Entente both dug a 400-mile line of trench.
- The trenches were constantly wet, infested with rats, and rife with illnesses such as trench foot.
- Key battle include Verdun and the Somme.
- Thousands of men died or were wounded. New weapons, for example, poison gas, tanks and aeroplanes failed to have much impact.

#### Key Dates:

**1915** – Stalemate began

**1916-18** War of Attrition

#### Language of the Lesson:

**stalemate** – when neither side makes any progress

**attrition** – both sides try to wear one another down.

### 5 – Battle of the Somme

- The Battle of the Somme lasted for 5 months.
- It began with a seven-day bombardment of the German trenches by the British.
- 500,000 British casualties.
- 430,000 French casualties.
- 600,000 German casualties.
- Sir Douglas Haig ordered for British men to continuously go ‘over the top’ to their deaths.

#### Key Dates:

**1 July 1916** - The first day of the Battle of the Somme

#### Language of the Lesson:

**battle** – a fight which is part of a wider war

**casualties** – the death of serious injury of a soldier

### 6 – The End of War

- Russia left the Triple Entente alliance in 1917. They had to deal with a revolution in their own country.
- America joined the war in 1917 on the side of the British and French.
- The ‘Hundred Days Campaign’ was the Allied attack which ended the First World War.
- The British, French and Americans pushed the Germans back through Europe.
- The British, French, Americans, and Germans signed an ‘armistice’ agreement.

#### Key Dates:

**11 November 1918** – the armistice to end the First World War

#### Language of the Lesson:

**armistice** – a peace agreement

| 1. Times Tables   | 2. Expanding Brackets   | 3. Factorise and solve   |
|---|---|--|
| $9 \times 1 = 9$ $9 \times 7 = 63$<br>$9 \times 2 = 18$ $9 \times 8 = 72$<br>$9 \times 3 = 27$ $9 \times 9 = 81$<br>$9 \times 4 = 36$ $9 \times 10 = 90$<br>$9 \times 5 = 45$ $9 \times 11 = 99$<br>$9 \times 6 = 54$ $9 \times 12 = 108$   | <p><b>Expression</b> - contains symbols such as numbers, letters and operators.<br/> <i>e.g. <math>7+3</math>, <math>a^2 + b^2</math></i></p> <p><b>Terms</b> - either single numbers, letters or a variable or the product of numbers and variables.<br/> <i>e.g. <math>5</math>, <math>b</math>, <math>-7c</math>, <math>a^2</math></i></p> <p><b>Variable</b> - a quantity that can take a range of values. We often use a letter to represent it such <math>x</math>, <math>y</math>, <math>z</math> etc.</p> <p><b>Coefficient</b> - the factor of an algebraic term.<br/> <i>e.g. <math>4y</math>, <math>4</math> in the numerical coefficient.</i></p> <p><b>Simplify</b> - write it in its most compact form<br/> <i>e.g. <math>2x + 3x</math> simplifies to <math>5x</math></i></p> <p><b>Substitute</b> - where you replace numbers into an algebraic expression.<br/> <i>e.g. if <math>y=2</math> then substituting into <math>5y</math> becomes <math>5 \times 2 = 10</math></i></p> <p><b>Expand</b> - to multiply each term in the bracket by the expression outside the bracket</p> <p><b>Identity</b> - an equation that holds true for all values of the variable. The symbol is <math>\equiv</math></p> | <p><b>Highest common factor</b> - the largest factor of two or more terms. Also known as HCF</p> <p><b>Factorise</b> - when you express an expression as a product involving the HCF of the terms.</p> <p><b>Unlike terms</b> - terms which cannot be collected together and simplified.<br/> <i>e.g. <math>3x</math> and <math>4y</math> are not like terms.</i></p> <p><b>Binomial</b> - the sum or difference of two terms</p> <p><b>Quadratic</b> - an expression where the highest power of the variable is 2<br/> <i>e.g. <math>3x^2 + 5x</math>, <math>x^2 + 5x + 6</math></i></p> <p><b>Equation</b> - a statement that two things are equal, it contains expressions on both sides of the equal sign. <i>e.g. <math>5 = 2x + 1</math></i><br/> <i>When we solve an equation we find the value of the unknown</i><br/> <i>e.g. solve <math>x + 5 = 8</math> answer <math>x = 3</math></i></p> <p><b>Solution</b> – the answer when you solve an equation</p> |
| 4. Inequalities   | 5. Indices  | 6. Sequences   |
| <p><b>Inequality</b> - a range of values.</p> <p><math>\neq</math> not equal                      <math>\leq</math> less than or equal to<br/> <math>&lt;</math> less than                      <math>\geq</math> greater than or equal to<br/> <math>&gt;</math> more than</p> <p><b>Solution set</b> - a set of all the solutions to an equation</p> <p><b>Unknown</b> - another word for a variable, a value we don't know yet. The Unknown has one distinct value</p> <p><b>Equivalent</b> <math>\equiv</math> means of equal value<br/> <i>e.g. <math>2x + 3x \equiv 5x</math> is true for all values of <math>x</math></i><br/> <i>The equivalence symbol is used in identities</i></p> | <p><b>Index</b> - a number that tells you how many times to multiply the number by itself<br/> <i>e.g. <math>y^3</math> means <math>y \times y \times y</math>.</i><br/> <i>We say <math>y^3</math> as "y to the power of 3" or y cubed</i></p> <p><b>Indices</b> - the plural of index</p> <p><b>Exponent</b> - another word for index</p> <p><b>Base</b> - the number that is being powered</p> <p><u>Indices can be fractions. To recap:</u></p> <p><b>Numerator</b> - the top number in a fraction. It tells us how many parts we have</p> <p><b>Denominator</b> - the bottom number in a fraction. It shows how many parts the item has been split into</p>  | <p><b>Sequence</b> - a succession of terms formed according to a rule</p> <p><b>Terms</b> - the numbers in a sequence</p> <p><b>Term to term rule</b> - lets you find the next term in a sequence if you know the previous term</p> <p><b>Difference</b> - the numerical difference between two numbers <i>e.g. difference in between 8 and 5 is <math>8 - 5 = 3</math></i></p> <p><b>Linear sequence</b> - a number pattern which increases (or decreases) by the same amount each time.</p> <p><b>Common Difference</b> -The amount a linear sequence increases or decreases by. <i>e.g. <math>4, 7, 10, 13...</math> and <math>15, 11, 7, 3...</math></i></p> <p><b>Non-linear sequence</b> - a number pattern which does not increase (or decrease) by the same amount</p> <p><b>Ascending</b> - to go up<br/> <b>Descending</b> - to go down</p>  |

## 1: The string family

### The Orchestra

There are four sections in a typical orchestra: strings, woodwind, brass and percussion.



**violin:** smallest instrument of the string family. Played with a bow, under the chin.

**viola:** larger and lower in pitch than the violin.

**cello:** the second largest instrument of the family. Played between the legs.

**double bass:** the largest and lowest instrument. Usually played standing up or on a stool.

**Timbre:** the characteristic sounds of an instrument

**Antonio Vivaldi:** famous composer of string music

## 2: The woodwind family

**Texture:** the different layers of sound. Texture can be thick (many parts) or thin (one or two parts)

### Tonguing:

a technique used by woodwind players.



## 3: The brass family

**Alison Balsom:** world known English brass performer. Winner of three classical Brit Awards.



#### 4: The percussion family

**tuned percussion:** tuned percussion are instruments where pitch can be played. For example; glockenspiel, xylophone

**untuned percussion:** the name given to percussion instruments with not pitch.

**timpani:** they consist of a skin called a *head* stretched over a large bowl commonly made of copper. Are sometime called kettledrums due to the shape of the bass.

**Percussionist:** the name given to the drummers in an orchestra



## Component 1: Fitness Testing

**Multistage Fitness Test**

This test involves continuous running between two lines 20 meters apart in time to recorded beeps. The time between the beeps gradually becomes shorter.

**Vertical jump test**

Stand side on to a wall and reach up with the hand closest to the wall. Keeping the feet flat on the ground, the point of the fingertips is marked or recorded. The athlete then leaps vertically as high as possible and this is recorded. The difference in distance between the standing reach height and the jump height is the score. The best of three attempts is recorded.

**Grip dynamometer**

Hold the dynamometer in the hand to be tested, When ready squeeze the dynamometer with maximum effort, which is maintained for about 5 seconds. The best of three attempts is recorded.

**1 min sit up test**

Lie on the floor with your knees bent, with feet flat on the ground. Your hands should be resting on your thighs. Count how many sit ups you can do in one minute.

## Component 4: HIIT training

HIIT training stands for High Intensity Interval Training and involves alternating short periods of intense exercise with less intense recovery periods. These are essential as your body needs to rest to be able to prepare the body for the next bout of work.

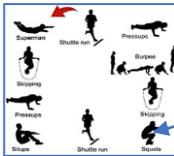
Exercises could include:

- Squats to work your quadriceps and gluteals
- Burpees to work your whole body
- Press ups to work your deltoid and pectorals
- Mountain climbers to work your gluteals, quadriceps, hamstrings, deltoids, triceps, biceps

This form of training is beneficial as it is time efficient and gives quick results. It could however, cause injury and leave muscles sore.

## Component 2: Circuit Training

**Circuit training** is a combination of six or more exercises with short rest periods between them for a certain amount of time.



Working the shoulders and chest (deltoid and pectorals)

Working the legs and bottom (quadriceps, gluteals)

Muscular endurance – working muscles repeatedly over a period of time, for e.g. plank

Aerobic endurance – working cardiovascular system over a period of time e.g. skipping

## Component 5: Weight training

Weight training is when you lift or pull against resistance such as weights (dumbbells) or body weight.

What are sets and reps?

A rep is the number of times you perform a specific exercise, and a **set** is the number of cycles of **reps** that you complete. For example, suppose you complete 15 **reps** of a bench press. You would say you've completed "one **set** of 15 **reps**."

If you want to train muscular endurance you would lift low weights with high repetitions

If you want to improve strength you would lift high weights with low repetitions.

Which machines train which muscles?

Leg press - quadriceps  
Chest press - pectorals  
TRX - deltoid

## Component 7: Orienteering

**Orienteering** is an exciting outdoor adventure sport which involves walking or running whilst navigating around a course using a detailed map. This is good for aerobic endurance, but also tests decision making and map reading.

Star orienteering involves finding a control (marker) then returning to the starting position before finding the next one.

Sprint orienteering involves racing against other people to find the controls in the quickest time.

## Component 3: Exercise to music

Exercise to music is high-energy exercises performed as a routine set to music.

- March
- Jog
- Side step
- Grapevine
- Box steps
- Jumping Jacks

This will work aerobic endurance.

## Component 3: Boxercise

**Boxercise** is an exercise class based on the training that boxers use to keep fit.

- Jab
- Hook
- Uppercut
- Jab cross
- Combos

This will work aerobic endurance and muscular endurance

Exercise to music is good if you enjoy working to a rhythm at high intensity. If you lack coordination or rhythm you will find this hard!

Boxercise requires high intensity bursts of exercise. Not good for beginners because it is demanding.

## Component 6:

Continuous and Fartlek Training

Continuous training is a form of exercise that is performed at a 'continuous' intensity throughout and doesn't involve any rest periods. Continuous training works on aerobic endurance.

Fartlek training is a Swedish word and roughly translated means 'speed play'. It involves varying the intensity or speed of your run and the ground you run on. For example, mixing a 45minute run with some uphill slow jogs and some grassy sprint sections. This also trains aerobic endurance.

Pacing is important for these types of training because if you set off too quickly you will tire and may have to rest.

**Box 1 – How did it Begin?**

Hinduism is the religion of the majority of people in India and Nepal. It also has over 900 million followers worldwide! About 3,500 years ago, the people who lived around the River Indus were known as Dravidians. They were invaded from the North by a group of people called Aryans- it is a mixture of these two civilisations from which HINDUISM grew. Hindu traditions are very ancient and have no definite starting point. The traditions which started Hinduism may go back several thousand years and some followers of the religion claim that the Hindu revelation is eternal.

**Box 2 – Belief in God**

In Hinduism they believe that there is one God (Brahman) but that this God has lots of different faces or ways of showing himself to the world. Three of the most significant forms of Brahman are Brahma, Vishnu and Shiva. These three gods express key aspects of Brahman, the Ultimate Reality. The word trimurti means ‘three faces’. In the trimurti, Brahma is the creator, Vishnu is the preserver and Shiva is the destroyer. In a Hindu temple, there are no images of Brahman. However, there are many images of gods and goddesses, which are aspects of the Brahman, or Divine One.

**Box 3 – Deities**

**Brahma – the creator:** Images or murtis of Brahma have four heads, which see in all directions at once. Brahma’s four arms carry symbols of power - a goblet, a bow, a sceptre and the Vedas. **Vishnu – the preserver:** Images or murtis of Vishnu express splendour and power. His four arms carry symbols of power - a discus, a lotus flower, a conch shell and a mace. Vishnu, god of light and enlightenment has appeared on Earth through avatars. **Shiva – the destroyer:** Images or murtis of Shiva vary. He is often pictured dancing and with four arms. He holds a drum and a flame, and holds in the his hand a pen, meaning ‘fear not’.

**Box 4 – Denominations**

Hindus who worship Vishnu and those who worship Shiva each consider that their form of God is especially important. Those who worship Vishnu are called Vaishnavites. These communities emphasise the idea of gods and goddesses appearing on Earth as avatars. They particularly focus on the avatars of Vishnu, such as Rama and Krishna. Those who worship Shiva are called Shaivites. Shaivite traditions are most popular in southern India. These communities often engage in restrictive practices, such as fasting, for spiritual reasons.

**Box 5 – The Story of Rama and Sita Part 1**

1. A good man, called Rama, was married to a beautiful princess, called Sita
2. They had been banished to live in the forest with his brother, by his stepmother, as she wanted her son to be King.
3. Ravana, the Demon king with ten heads, heard of Sita’s beauty and goodness and planned to kidnap her.
4. The demon king disguised himself as an old man and tricked Sita. He kidnapped her and flew away.

**Box 6 – The Story of Rama and Sita Part 2**

5. Rama and Lakshman (his brother) searched many months for Sita. Finally, they asked Hanuman for help. Hanuman could fly.
6. He found Sita imprisoned on the island of Lanka.
8. Rama borrowed a special bow and arrow from the gods. Rama shot Ravana and the battle was won.
8. Rama rescued Sita and they decided to go home. As it got dark, the people of the kingdom put out little oil lamps (divas) in their windows to show the way home.

| Vocabulary    | Definition                                      |
|---------------|---|
| Aryans        | The original group on Hindus.                   |
| Hindus        | People who follow the religion of Hinduism.     |
| revelation    | Something revealed to humans by God.            |
| eternal       | Lasting forever                                 |
| trimurti      | Three faces                                     |
| avatars       | An incarnate (human) version of a God on Earth. |
| murti         | A face.   |
| enlightenment | Realisation that are things are united.         |
| banished      | Forbidden from coming back.                     |
| imprisoned    | Trapped.  |
| discus        | A heavy thick disk.                             |
| mace          | A heavy stick with a spikey head.               |
| goblet        | A large metal cup.                              |
| sceptre       | A large, often golden, staff or stick.          |
| Deity         | A God.  |

| 1: Biology: Plant Structure |  | 3: Chemistry: Mixtures                 |  | 5: Physics: States of Matter                 |  |
|-----------------------------|--|--|--|--|--|
| root                        | the part of the plant that absorbs water and minerals  | element                                | a substance made from one type of atom                     | particle                                     | the smallest piece of matter   |
| leaf                        | part of the plant which is specialised for photosynthesis  | compound                               | two or more substances chemically bonded together          | chemical change                              | a change in which a new substance is formed and is usually irreversible          |
| photosynthesis              | a series of chemical reactions in a plant to produce glucose   | mixture                                | two or more substances not chemically combined             | physical change                              | a change where no new substance is formed and is usually reversible              |
| stomata                     | small openings on the surface of a leaf where gas exchange occurs                                      | pure                                   | only contains one type of substance                        | change of state                              | a physical process where matter changes state                                    |
| chloroplasts                | the site of photosynthesis   | solute                                 | the substance that will dissolve                           | property                                     | a characteristic or a trait  |
| peer review                 | <i>the evaluation of scientific, academic or professional work by others working in the same field</i> | solvent                                | the substance that does the dissolving                     |  |  |
|                             |  | solution                               | a mixture of a solvent and a solute                        |  |  |
|                             |  | dissolve                               | when a soluble solid and a solvent form a solution         |  |  |
| 2: Biology: Adaptations     |  | 4: Chemistry: Combustion and Oxidation |  | 6: Physics: Conservation of Mass and Density |  |
| cuticle                     | thin and waxy to protect the plant and prevent water loss but allowing sunlight through                | soluble                                | a substance that will dissolve                             | conservation of mass                         | matter cannot be created or destroyed, just transferred from one form to another |
| air space                   | the space within the leaf to allow carbon dioxide to diffuse to the cells                              | chromatography                         | a method to separate soluble substances                    | mass   | the amount of matter in a given volume   |
| guard cells                 | control the opening and closing of the stomata   | filtration                             | a method to separate an insoluble solid from a solution    | volume                                       | the quantity of three-dimensional space taken up by a substance                  |
| root hair cell              | increases the surface area of the root to increase water uptake  | crystallisation                        | a method to separate a soluble solid from a solution       | density                                      | the mass per unit volume of a substance  |
| surface area                | the amount of exposed area there is  | distillation                           | a method to separate solutions of different boiling points | compare                                      | looking at the similarities and differences between things                       |
|                             |  |  |  | anomaly                                      | a result that doesn't fit a pattern  |

**1: Hygiene**

**Cleaning-** clean up work areas as you work. Make sure you use separate utensils for raw and cooked food.

**Chilling-** make sure you store food correctly. Raw foods at the bottom of the fridge and cooked or ready to eat foods at the top. Keep fridge door shut as much as possible to retain temperature (0-5 degrees C)

**Cooking-** cook food properly. Make sure internal temperature of food has reached at least 75 degrees C for at least 2 minutes. Use a food probe on high risk foods.

**Cross Contamination-** when bacteria from one food transfer onto another. To avoid this keep hands, utensils and work areas clean and separate for raw and ready to eat foods.

**Physical contaminant-** when a physical item falls into food e.g. a finger nail, hair or piece of jewellery.

**Chemical contaminant-** when chemicals find their way into food. This can be during production but often by carelessness when storing foods and using cleaning products. Too much washing up liquid left on the pots can cause chemical contamination!

**2: Glossary**

Balanced- making sure there is a variety in our diets and the quantities are correct.

Saturated fat - animal fats that clog up our arteries.

Unsaturated fat - 'good fats' that come from plants

Simple Carbohydrates – sugary foods that contain fast releasing energy that burns off quickly.

Complex Carbohydrates – starchy foods containing slow releasing energy that keeps us going.

Amino acids- essential protein which our body needs for growth and repair

HBV- ( high biological value )proteins which contain all the essential amino acids.

LBV- (low biological value) proteins with DO NOT contain all the essential amino acids.

### 3: The Eat Well Guide

## Eatwell Guide

Check the label on packaged foods

| Each serving contains    |        |                |            |           |
|--------------------------|--------|----------------|------------|-----------|
| Energy 1000kJ<br>250kcal | Fat 5g | Saturated 1.3g | Sugars 34g | Salt 0.9g |
|                          | LOW    | LOW            | HIGH       | MED       |
| 12.5%                    | 7%     | 6.5%           | 98%        | 15%       |

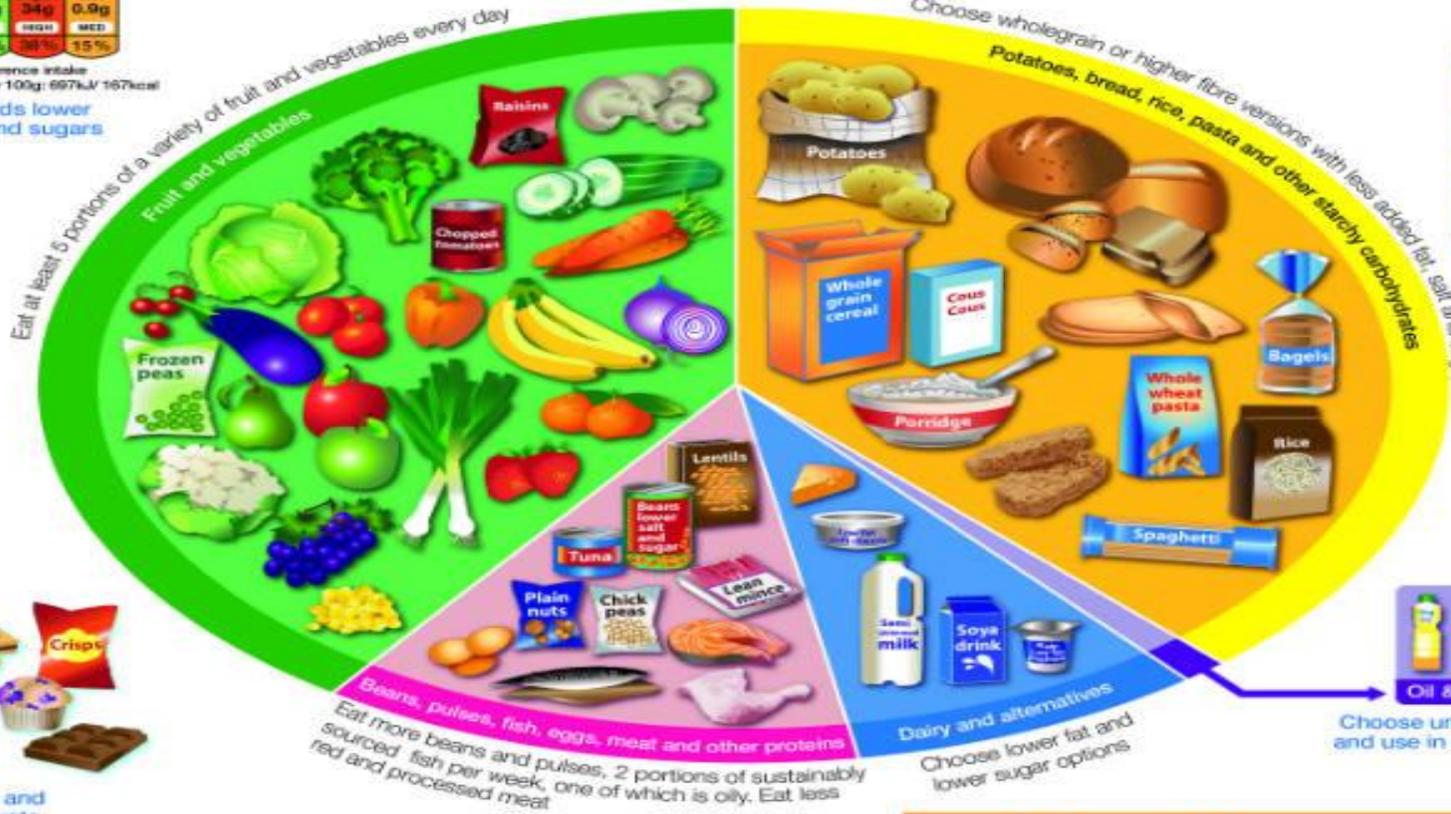
of an adult's reference intake  
Typical values (as sold) per 100g: 697kJ/167kcal

Choose foods lower in fat, salt and sugars

Use the Eatwell Guide to help you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.



Water, lower fat milk, sugar-free drinks including tea and coffee all count.  
Limit fruit juice and/or smoothies to a total of 150ml a day.



Per day 2000kcal 2500kcal = ALL FOOD + ALL DRINKS

## 1 – Staying Safe in a Workshop

We use signs to help us stay safe in a workshop.



Red signs prohibit actions.



Blue signs show mandatory (must do) actions.



Yellow signs show warnings.



Green signs highlight areas of safety.

## 2 – Tools/Equipment

**Tenon Saw** – A hand saw for cutting straight lines in wood.

**Coping Saw** – A hand saw for cutting intricate lines in wood.

**Band Facer** – A machine that uses sandpaper to shape wood.

**Pillar Drill** – A machine fixed in place that can drill holes in to material.

**Bench Hook** – A piece of equipment used to hold material against whilst working on it

## 3 – Tools/Equipment

**Scroll Saw** – A machine that can be used to cut intricate lines into material.

**Isometric drawing**– A way of presenting designs in 3D.

**G-Clamp** – A tool used to hold work firmly in place without assistance.

**Abrasive paper** – Material or paper with grains of abrasive material glued on to it.

**Adhesive** – A substance that is used to bond (glue) objects together.

## 4 – Materials

**Manufactured board**– Sheet material formed by gluing together wood particles or layers. Eg. MDF.

**Plywood** – A manufactured board made from wood veneers that are glued together in adjacent layers.

**Veneer** – A thin layer/sheet of wood.

**PVA Glue**– A water based, non-toxic, adhesive. Good for general use on porous materials, such as wood and fabric.

**MDF**– A manufactured board that is made from compressed and glued together wood fibres. It is often used in flatpack furniture (IKEA).

## 5 – Evaluation

In Design Technology we often have to analyse products or evaluate our own designs. To do this we can use the acronym '**ACCESSFM**'.

**A** – Aesthetics

**C** – Cost

**C** – Customer

**E** – Environment

**S** – Size

**S** – Safety

**F** – Function

**M** – Material