



# Knowledge Organiser

Year 9

Summer term A

Name:

Tutor:

## What is a Knowledge Organiser?

Knowledge Organisers are a central place where staff have placed key content, skills and knowledge to help you progress. These skills are essential for your success and will need to be memorised and applied in your lessons. There are some techniques for how you can use Knowledge Organisers below:

Look Cover Say Write Check

LOOK

...at the sounds, or parts of the words as you read the word.

three... **th...r...ee**  
phonemic spelling strategy

twice... **tw...ice**  
onset-rime spelling strategy

enormous... **en...or...mous**  
syllabic spelling strategy

COVER

...the word. Try to see the word and all its sounds in your head.

th...r...ee

SAY

...each sound or part of the word while revealing a finger.

three... **th - r - ee**

twice... **tw - ice**

enormous... **en - or - mous**

WRITE

...the word in alternating colours.

**th-r-ee**  
phonemic spelling strategy

**tw-ice**  
onset-rime spelling strategy

**en-or-mous**  
syllabic spelling strategy

CHECK

...your work.

### Flashcards

These are a very good and simple self testing tool, they can be physical or electronic.

To make your own, take some card and cut into rectangles, roughly 10cm x 6cm.

Write the keyword on one side and the definition on the other. Go through your cards looking at one side and seeing if you can remember the keyword/definition on the other side.

This video offers a really good guide for using them effectively:

<https://www.youtube.com/watch?v=eVajQPuRmk8>

### Questions/Answers, Answers/Questions

*Question: In what year was George V's coronation?*

*Answer: 1910*

Ask a parent, carer or study partner to write you questions (or answers) and then you write the answer (or possible question that would correspond to the answer).

You can also write your own questions. If you do this leave it at least a day until you answer them to see what you can remember after a while.

Always check and correct!

### A. Keywords

- Alliteration:** Repeated first letter
- Assonance:** Repeated vowel sound
- Cliché:** Over-used phrase
- Consonance:** Repeated consonant sound
- Colloquial language:** Local/casual language
- Emotive:** Makes you feel emotional
- Euphemism:** Alternative words to make something nasty sound okay
- Extended metaphor:** A series of metaphors all relating to each other
- Half rhyme:** Nearly rhymes
- Hyperbole:** Exaggeration
- Imagery:** Something used to describe something else
- Internal rhyme:** Rhyme that is on the same line
- Metaphor:** Something is described as being something else
- Mood:** Atmosphere
- Onomatopoeia:** A verb sounds like what it does
- Personification:** A non-human thing is given human qualities
- Plosive Letters:** p/t/k/b/d/g
- Rhyme:** Words that sound the same
- Semantic Field:** Words that are about the same thing
- Sibilance:** A repeated s sound
- Simile:** Something is described as being like/as something else to describe it
- Symbol/ symbolism:** Something that represents something else
- Tone/Voice** Emotion

### B. Key Knowledge 1: Poetry Devices - Structure

- Chronological: In order of time
- Caesura: A break in the middle of a line
- Enjambment: A sentence runs over more than one line
- Iambic pentameter: 5 sets of weak/strong beats in a line
- Juxtaposition: Two opposites
- Anaphora: Repeated first few words at start of lines
- Oxymoron: Two opposite words next to each other
- Rhyme scheme: The organisation of the rhyme
- Rhyming couplet: Two lines that rhyme next to each other
- Rhythm: The beat
- Volta: The turning point of a poem
- Repetition: Words or ideas repeated

**Subject: English**  
**Topic: Relationship Poetry**

### E. Image

😊 Poetry Analysis - Smile Method 😊

S - Structure	How many stanzas? How does the poem develop across each one? Narrative perspective - 1 <sup>st</sup> or 3 <sup>rd</sup> person? What is the rhyme and rhythm in the poem?
M - Meaning	Describe in detail the subject of the poem. What is it about? How do you know?
I - Imagery	Use of Simile, Metaphor and Personification. Also what other images are suggested to you?
L - Language	What examples of literary devices can you find? (repetition, emotive language, alliteration, word class analysis - (noun, adjective, adverb, verbs), directives, connotations of words or colours, sibilance, assonance.
Emotion	What emotions is the poet giving you? What tone or mood is there in each verse? Does it change? What does the mood tell you about how the poet felt?

### C. Key Knowledge 2: Key Quotes

- Cozy Apologia:** I could pick anything and think of you.  
'Sure as shooting arrows to the heart.'  
'chain mail glinting, to set me free.'  
'Sweet with a dark and hollow center.'
- She Walks in Beauty:** 'She walks in Beauty like the night.'  
'So soft, so calm, yet eloquent.'  
'A mind at peace with all below.'
- Sonnet 43:** 'How do I love thee? Let me count the ways!  
'I love thee freely, as men strive for Right,'  
'I love thee purely, as they turn from Praise;'  
'I shall but love thee better after death.'

### F. Expert Modelling

Sonnet 43 is written by the poet Elizabeth Barrett Browning. She wrote this poem for her husband to show how much she truly loved him. It was a private poem but Robert Browning wanted to publish it. The poem expresses Browning's love for her husband through the use of a rhetorical question 'How do I love thee?'. She follows on to write 'Let me count the ways' suggesting there are a lot of reasons to why she loves him. The rhetorical questions immediately addresses the reader. The full stop at the end of line one suggests that she is ready to list the reasons for her love. This links to her powerful emotions, as she married Robert Browning against her father's wishes and consequently she lost all contact with him.

### D. Key Knowledge 3: Key Quotes

- Valentine:** 'Not a red rose or a satin heart.'  
'It will blind you with tears like a lover.'  
'Its fierce kiss will stay on your lips.'
- The Manhunt:** 'the frozen river which ran through his face'  
'the damaged porcelain collar bone'  
'the parachute silk of his punctured lung'
- Living Space:** 'Not enough straight lines'  
'Beams balance crookedly.'

### G. Wider thinking / further reading



## A. Keywords

**Speed** - the rate at which something moves or operates.

**Distance** - the length of the space between two points.

**Density** - the degree of compactness of a substance.

**Mass** – How heavy an object is (not the same as weight!).

**Volume** - the amount of space inside of a solid figure.

**Compound** - Something made up of two or more other measurements.

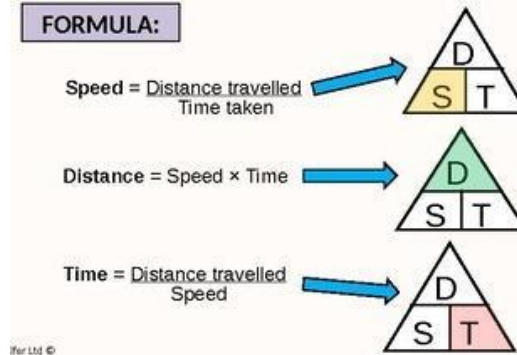
**Conversion** - a change from one unit into another.

**Metric** - A system of measurement in which the basic units are the meter, the second, and the kilogram.

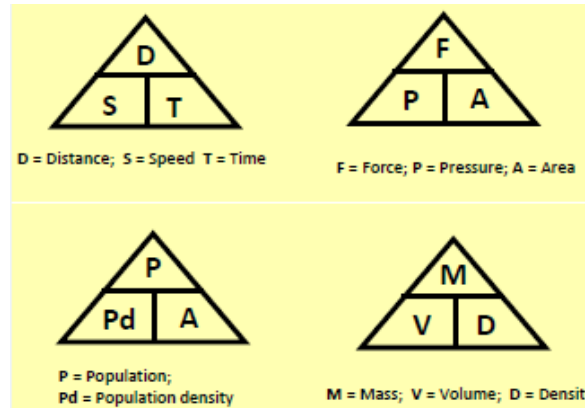
**Imperial** - (eg) feet, inches, pounds, ounces, gallons. The Imperial System has been replaced by the Metric System in most countries.

**Formula** - a mathematical expression or relationship that are used to solve a problem, or a way to make something.

## B. Key Knowledge 1: Using compound measure triangle formulae



## E. Image



## F. Expert Modelling

I travel 5km in 10 minutes.

What is my average speed?



30km/h



Calculate the density of a piece of metal that has a mass of 2000 kg and a volume of 0.5 m<sup>3</sup>.

$$d = \frac{m}{v} \quad d = \frac{2000 \text{ kg}}{0.5 \text{ m}^3} \quad d = \frac{4000 \text{ kg}}{1 \text{ m}^3} \quad d = 4000 \text{ kg/m}^3$$

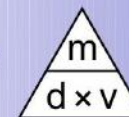
The density of gold is 9.3 g/cm<sup>3</sup>. Calculate the mass of a gold bar with a volume of 30 cm<sup>3</sup>



$$m = d \times v$$

$$m = 9.3 \text{ g/cm}^3 \times 30 \text{ cm}^3$$

$$m = 279 \text{ g}$$



Subject: Maths

Topic: Compound Measures

## B. Key Knowledge 2

### Basic Conversions

1 000m = 1km  
60 seconds in a minute  
60 minutes in an hour

1 000g in 1kg  
Density is usually measured in g/cm<sup>3</sup>,  
and also in kg/m<sup>3</sup>

### 4 Important Metric and Imperial Conversions

1 mile = 1.6 kilometres  
1 inch = 2.54 centimetre  
1 kilogram = 2.2 lbs (pounds)  
1 gallon ≈ 4.5 litres

### HOT TIP

Average speed is measured in mph (miles per hour) or km/h (kilometres per hour)

## D. Key Knowledge

### How to convert decimal hours to HOURS & MINUTES

3.1 hours is not 3hrs and 10 minutes!

Every 0.1 is worth 6 minutes.

$$0.1 \times 60 = 6 \text{ minutes}$$

It is a fraction of an hour

So, 3.1 hours is 3 hours 6 minutes

0.1 hour = 6 minutes  
0.2 hour = 12 minutes  
0.3 hour = 18 minutes  
0.4 hour = 24 minutes  
0.5 hour = 30 minutes

0.25 hours is not 25 minutes!

It is a quarter of an hour, therefore 15 minutes

Another way to change the units is to multiply the decimal part by 60

So, 0.25 hours is calculated:

$$0.25 \times 60 = 15 \text{ minutes}$$

0.6 hour = 36 minutes  
0.7 hour = 42 minutes  
0.8 hour = 48 minutes  
0.9 hour = 54 minutes  
0.25 hour = 15 minutes

## G. Wider thinking/further reading

HegartyMaths clips



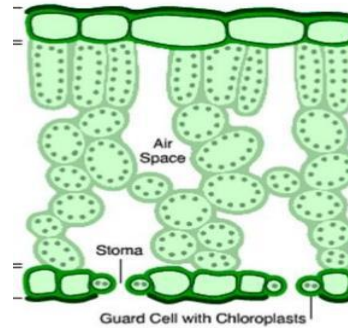
### A. Keywords

<b>Plasma</b>	'Watery' component of blood that carries everything EXCEPT oxygen.
<b>Haemoglobin</b>	Protein found in red blood cells that oxygen binds to.
<b>White blood cell</b>	Cells in blood that fight infection
<b>Platelets</b>	Cell fragments that help blood to clot and repair damage to blood vessels and skin
<b>Artery</b>	Blood vessel carrying blood AWAY from the heart.
<b>Capillaries</b>	Tiny blood vessels carrying blood to all the tissues. Where exchanges happen.
<b>Vein</b>	Blood vessel carrying blood TO the heart.
<b>Valve</b>	Found in heart and veins. Stops blood flowing backwards.
<b>Atrium</b>	First chambers of the heart that pump blood down to the ventricles
<b>Ventricles</b>	Main chamber of the heart that pumps blood to the lungs and around the body
<b>Stomata</b>	Holes (pores) underneath the leaf that allows gas exchange.

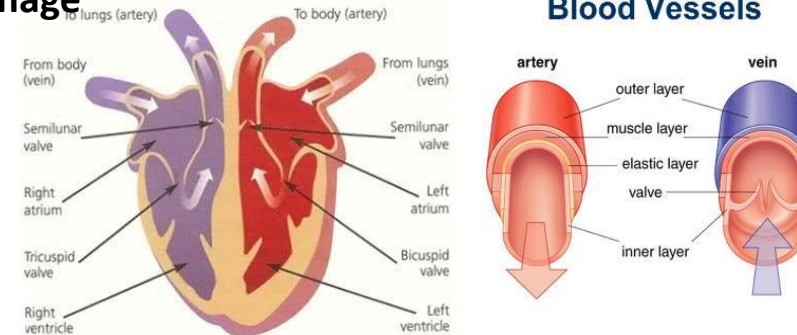
### B. Key Knowledge 1: Leaf Structure

The structure of a leaf means that the photosynthesising cells are at the top of the leaf absorbing as much light as possible.

There are holes (pores) on the bottom layer of the leaf called **stomata** that lets Carbon Dioxide in and Oxygen out.



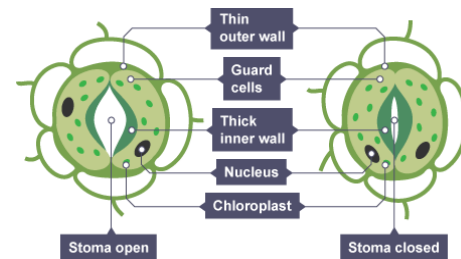
### E. Image



### F. Expert Modelling: Guard Cells and Key Words

Notice the use of technical language to explain how guard cells work

The **stoma** will open when the plant has plenty of water. The **guard cells** become **turgid** causing the **stoma** to open. When **dehydrated** the **guard cells** become **flaccid**, closing the **stoma**.



**Subject: Science**

**Topic: Animal/Plant Tissues**

### C. Key Knowledge 2: Blood Components

**Red Blood Cells:** Carries oxygen ONLY around the body. Full of Haemoglobin, the protein that binds to the Oxygen

**White Blood Cells:** Fight invading microbes including pathogens (disease causing microbes)

**Plasma:** The 'water' that carries the blood cells that has EVERYTHING else dissolved in it e.g. food, CO<sub>2</sub>

**Platelets:** Small cell fragments that clot blood and help form scabs.

### D. Key Knowledge 3: The Heart

- The heart is a double pump.
- The RIGHT side pumps deoxygenated blood to the LUNGS.
- The LEFT side pumps oxygenated blood to the rest of the BODY.
- Blood enters the heart in a chamber called the ATRIUM where it is move to the VENTRICLES for pumping.
- Valves keep the blood flowing in the right direction.

### G. Wider thinking / further reading

<https://www.bbc.com/education/guides/zqnsrwx/revision/3>

## A. Keywords

**Carbon footprint** -the total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide.

**Energy mix** - the range of energy sources of a region or country, both renewable and non-renewable.

**Fossil fuel** - a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms.

**Non-renewable energy** - resources that will run out or will not be replenished in our lifetimes-or even in many, many lifetimes. Most non-renewable energy sources are fossil fuels: coal, petroleum, and natural gas. Carbon is the main element in fossil fuels.

**Renewable energy sources** - a resource which is not diminished when it is used; it recurs and cannot be exhausted (for example wind and tidal energy).

**Sustainable energy supply** - energy that can potentially be used well into the future without harming future generations. Sustainable energy is the combination of energy savings, energy efficiency measures and technologies, as well as the use of renewable energy sources.

**Energy conservation** - reducing energy consumption through using less energy and becoming more efficient in using existing energy sources.

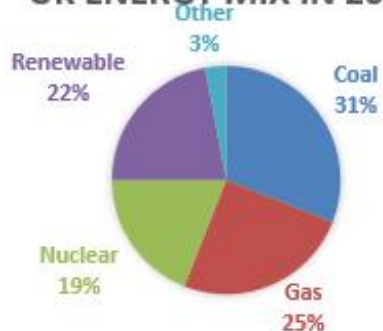
**Energy gap** – energy supply take away energy demand.

## B. Key Knowledge 1: Energy Mix

The way that we source our energy has changed. Until the mid-20th Century we were heavily reliant on coal, until oil drilling in the 1950's changed this. We are heading towards a more renewable energy future if the UK government can maintain investment in this area. Households are using less energy due to improvements in heating and heat conservation technologies such as insulation and triple glazing. Industry is using less because many of our heavy industries have shut down, gone abroad or become more energy efficient. In contrast, we are using more energy for transport as the number of cars on our roads has gone up significantly.

## E. Image

UK ENERGY MIX IN 2015



## F. Expert Modelling: What is meant by the term energy security?

The world's largest consumers of energy are therefore also the places with the greatest supply. These places mainly have energy security, they can provide energy for their citizens at an affordable price. Energy security can also be achieved in countries with smaller reserves, such as in the UK, but often at higher prices as some energy needs to be imported at higher costs. They are also more vulnerable to rises in price or suppliers reducing supplies meaning that energy insecurity becomes an issue. Those countries, often developing, who cannot supply their citizens or where it is too expensive are energy insecure.

**Subject: Geography**

**Topic: Resource Management Energy**



## C. Key Knowledge 2: Energy Conservation

Energy conservation means using energy as efficiently as possible and trying to minimise waste. Reducing energy consumption through using less energy and becoming more efficient in using existing energy sources. Some ideas are: fill the dishwasher before using; replacing an old light bulb with an energy saving one can reduce lighting costs by up to £78; cavity wall insulation can save energy users up to £270 a year; fit reflector panels behind your radiators -these can reflect back into the room; before you go to bed turn off the power to appliances such as TVs and stereos.

## D. Key Knowledge 3: Future Options

Although it would be preferable to eliminate fossil fuel use and move towards a sustainable energy future, making fossil fuel use more efficient could be a transitory step on our way. Combined heat and power (CHP) is such technology that could help. It is the use of a power station to generate electricity and useful heat at the same time. It involves using traditional burning of coal, oil or gas in power stations for the production of electricity. However, it uses the waste heat produced in this process to heat water for the use in housing projects, hospitals, schools, etc...

## G. Wider thinking / further reading

[http://www.coolgeography.co.uk/gcsen/CRM\\_Energy\\_North\\_Sea\\_Supply.php](http://www.coolgeography.co.uk/gcsen/CRM_Energy_North_Sea_Supply.php)

**A. Keywords**

Key word:	Definition:
<b>Policy</b>	A statement of intent, and is implemented as a procedure.
<b>Lebensraum</b>	Living space. Hitler wanted to expand eastwards for the German people.
<b>Conscription</b>	Compulsory military service for a certain amount of time.
<b>Anschluss</b>	Political and economic union of Germany and Austria.
<b>Polish corridor</b>	The strip of German land that gave Poland access to the Baltic Sea.
<b>Soviet Union (USSR)</b>	A socialist state in Russia .
<b>Appeasement</b>	Making concessions to avoid a hostile situation.

**B. Key Knowledge 1: Hitler's main aims**

In January 1933, Adolf Hitler came to power in Germany and immediately began to challenge the Treaty of Versailles and adapt an aggressive foreign policy.

Hitler openly stated his aims in his book "Mein Kampf" in 1924:

- 1) Destroy the Treaty of Versailles.
- 2) Create a greater Germany (a country of all the German people).
- 3) Lebensraum- to conquer land for Germany in Eastern Europe.

**E. Image**



A map which shows the land taken by the Nazis between the years 1936-38

**F. Expert Modelling**

Interpretation 1 clearly does support the view that Hitler's main foreign policy aim was to conquer lands to the east of Germany. Trevor-Roper claims that the Nazi purpose was to always "take the great area of Russia" and Hitler's aim was to win territory in the East. The author claims that this was his entire focus – creating a German empire once again, after the humiliation of being torn apart under the terms of the Treaty of Versailles. This, together with the Anschluss, the Sudetenland takeover and the takeover of Czechoslovakia in 1938 supports the view that Hitler's main foreign policy aim was to conquer lands to the east. The author is an historian writing an article for an academic magazine in 1960, meaning that it is for an audience with an interest in academia and/or history; therefore he would need to ensure that the information he uses is correct and justified. From the title 'Hitler's War Aims', it shows that it is detailed focus on this aspect of Nazi Germany and not a broad study.

**Subject: History**

**Topic: Germany in Transition, 1919-1939**

**C. Key Knowledge 2: Lebensraum**

Hitler needed more land to ensure that there was space for the German people to live. He secured this aim by:

- The Takeover of Czechoslovakia, March 1939,
- The Pact of Steel, May 1939,
- The Nazi-Soviet Pact 1939 and
- The invasion of Poland on the 1st September 1939.

**D. Key Knowledge 3: Destruction of the ToV**

From March 1935, Hitler was confident enough to renounce the terms of the Treaty of Versailles.

- Re-introduce conscription to the army, navy and air force.
- Return of the Saarland, Jan 1935: Through a plebiscite (referendum) Germany regained the Saarland from League of Nations control – taking back land that was lost through the Treaty of Versailles terms
- Stresa Front, April 1935: Anglo--German Naval Agreement of 1935 allowed Germany to build a navy of up to 35% of Britain's fleet.

**G. Wider thinking / further reading**

- <http://www.bbc.co.uk/schools/gcsebitesize/history/mwh/ir1/hitlersaimsandactionsrev1.shtml>
- [http://www.johndclare.net/RoadtoWWII1\\_IGCSEnotes.htm](http://www.johndclare.net/RoadtoWWII1_IGCSEnotes.htm)



## A. Keywords

<b>Context</b>	the situation or circumstances in which a piece of drama is set or devised, which may have historical, cultural or social influences.
<b>Unit of Action</b>	Section of a play's action that can be divided into for the purposes of dramatic exploration in rehearsal
<b>Super Objective</b>	A super-objective can direct and connect an actor's choice of objectives from scene to scene. The super-objective serves as the final goal that a character wishes to achieve within the script.
<b>Objective</b>	The objective is a goal that a character wants to achieve. This is often worded in a question form as "What do I want?"
<b>Action</b>	Actions are referred to as how the character is going to say or do something. More specifically, it as an objective for each line. Actions are how a character is going to achieve their objective.

## B. Key Knowledge 1: Theatre in Education

Theatre in Education are productions that are devised and researched by the team/teachers and are for small groups of one or two classes of a specific age. The aim of the productions are essentially **educational**, and uses **theatre**, **drama in education** and **teaching** techniques to gain these ends



**Mark Wheeler**  
A British playwright who has wrote several plays targeting students and tackling teenage-based issues.

## E. Plays by Mark Wheeler – Theatre in Education



## F. Expert Modelling: Key descriptions of genres

**Naturalistic:** The performance is as close to real life as possible.

**Non-naturalistic:** The performance is more theatrical and stylised and tells the story using a variety of techniques such as flashbacks; direct address to the audience; multiple role-play.

**Physical Theatre:** This means the performance is literally more physical. To tell the story, performers focus on their bodies. E.g. Mask work, creating a forest using the bodies of the performers, mime...

**Subject: Drama**  
**Topic: Scripted**

## C. Key Knowledge 2: Techniques to help learn lines.

1. **Read the lines aloud**
2. **Use sticky notes** to record motivations of lines in text.
3. **Little and often.** Go over them first thing in the morning, a few times during the day and last thing at night

## D. Key Knowledge 3

**Setting the scene:** Introducing the characters, place, time and situation.

**Exposition:** Tells the story up to the point when the play starts. What the audience needs to know.

**Introduce the dilemma:** Something starts to go wrong or a problem occurs.

**Develop the tension:** Tension builds. Things get worse and worse causing the audience to literally get 'tense' wondering what will happen next.




**Climax:** The height of the scene where the problem comes to a head. The emotions are very extreme: extremely funny, extremely sad, extremely shocking etc.

**Resolution:** How the situation ends. Usually the characters have changed as a result. A new beginning.

**Transitions:** Movements between scenes. How these are carried out in a manner that keeps the audience interested and maintains the atmosphere.

**Anti-climax:** this is where tension builds to the point where it looks like something dramatic is about to happen but then it doesn't. It's used a lot in comedy when somebody says something funny to defuse the tension.

## G. Extend your thinking

-  Peter Brook 'The Empty Space'  
<https://www.youtube.com/watch?v=Qm4ZjFxCs0>
-  Download Line Learner or Rehearsal Pro
-  (Free versions!)





## A. Keywords

**Stereotyping:** A generalised simple view of someone or something which is usually negative and often inaccurate

**Prejudice:** Believing some people are inferior without even meeting them (pre judging them)

**Discrimination:** Treating someone differently because of your prejudices

**Positive Discrimination:** Treating people more favourably because they have been discriminated against in the past.

**Racism:** Discriminating against someone because of their race

**Scapegoating:** When you blame things that go wrong on a particular person or group of people.

**Tolerance:** Respecting the beliefs and practices of others.

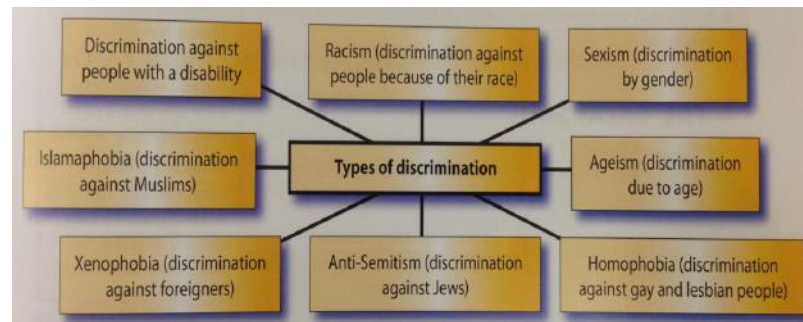
**Justice** Bringing about what is right, fair, according to the law or making up for what has been done wrong.

**Harmony:** Living in peace with others.

## B. Key Knowledge 1 – Who was Gandhi?

Mohandas Gandhi is one of the most famous leaders and champions for justice in the world. His principal and firm belief in non-violence has been followed by many other important civil rights leaders including Martin Luther King, Jr. and Nelson Mandela. He worked hard to stop the British discrimination against Indians in India.

## E. Image



## F. Expert Modelling: What do religions teach about equality?

**Christians** believe that all people are **equal**, as all humans are **God's creation**. They believe humans are created in the **image of God** and whilst all are **unique** are all equal in the eyes of God. **Jesus'** example was clear that everyone should be treated equally as he mixed with people who were considered inferior at the time, such as tax collectors, women, lepers and prostitutes. Christians believe that they will be judged on their actions (**parable of the sheep and the goats**) and therefore need to ensure that they spend time helping others get **equality** in their lives.

**Subject: RE**  
**Topic: Prejudice**

## C. Key Knowledge 2 – Does racism still exist?

**Why are some people racist?** Fear, upbringing, ignorance, bullying, stereotypes, scapegoating

**Buddhist views on racism:** Buddhists believe that 'there is no such thing as a self'. Racism, on the other hand, works on the idea that we each have a self but that some selves are more important than others. They are also told that they should practice the Eightfold Path; this includes the idea of 'right speech', which means they must speak to other people in a way that shows respect. They also believe in the idea of ahimsa, the idea of not hurting or doing violence to any living thing.

**Christian views on racism:** Christians believe that everyone was created equally in the eyes of God. They also try to be peaceful and loving like Jesus 'love thy neighbor'.

## D. Key Knowledge 3- Who was Martin Luther King?

Martin Luther King worked tirelessly against racism in America during the 1960s against black people. He was a pacifist, which means he encouraged non-violence. His achievements were vast (big).

## G. Wider thinking / further reading

<https://quizlet.com/5423807/prejudice-key-terms-flash-cards/>

## A. Keywords

**Orthographic** - is a two-dimensional drawing of a three-dimensional object, using two or more drawings to show additional views of the object.

**Production Plan** - is a detailed plan of production and manufacture to follow when producing new products.

**Quality Control** - is testing the quality of the product once manufactured for suitability.

**Quality Assurance** - makes sure you are doing the right things, the right way, at the right time during manufacture.

**Try-square** - an implement used to check and mark right angles in constructional work.

**Steel Rule** - a basic measuring tool. When used correctly, a good **steel rule** is a surprisingly accurate measuring device.

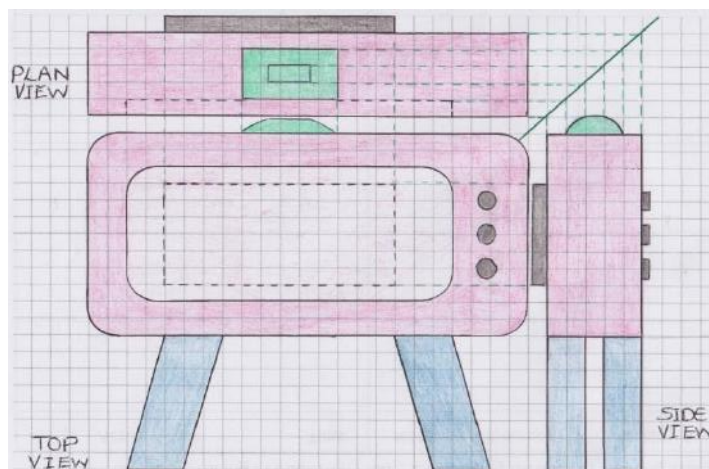
**Cutting List** - a list of all the parts that will be required to construct a product in terms of its thickness, width and length of material used.

**B. Key Knowledge 1: Orthographic Drawing** is a way of drawing an 3D object from different directions. Usually a front, side and plan view are drawn so that a person looking at the drawing can see all the important sides. Orthographic drawings are useful especially when a design has been developed to a stage whereby it is almost ready to manufacture.

## E. Image: Retro TV Stand



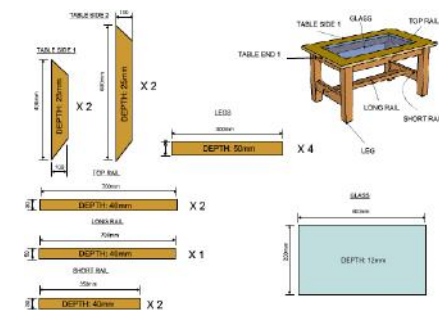
## F. Expert Modelling: Orthographic Drawing



**Subject: Product Design**  
**Topic: Retro TV Stand**

**C. Key Knowledge 2: Production Plan** shows how you intend to manufacture your product as stages, the equipment and tools you have planned to use and quality control checks. The quality control checks should show clearly that you intend to check the product for quality and damage at specific stages of manufacture. The flow chart displays your planning to ensure that these checks are written into the making sequence.

**D. Key Knowledge 3: Cutting List** can be used to help manufacture the product with ease. Drawing each individual part ensures that you consider the size and shape of every piece. It will help you understand how many pieces of material need cutting, the type of material and overall sizes.



**G. Wider thinking / further reading**

[www.technologystudent.com](http://www.technologystudent.com)



## A. Keywords

**Roux (Gelatinisation)** - Roux is flour and fat cooked together and used to thicken sauces. Roux is typically made from equal parts of flour and fat by weight. The process of flour and fat thickening sauce is known as gelatinisation.



**Coagulation** - Coagulation refers to the process that occurs when heat is applied to liquid, which then thickens into a firmer mass. Explore the science of the egg when cooked as this is a good example of coagulation.



**Fermentation** - Fermentation occurs when yeast and bacteria inside the dough convert carbohydrates to carbon dioxide causing gas bubbles to form, which has a leavening effect on dough.



**Shortcrust pastry** - Shortcrust pastry is a type of pastry often used for the base of a tart, quiche or pie. Shortcrust pastry can be used to make both sweet and savory pies such as apple pie, quiche, lemon meringue or chicken pie.



## B. Key Knowledge 1

**Temperature Probe** - A cooking thermometer that is used to measure the internal temperature of meat, especially roasts and steaks, and other cooked foods.



**Hand Blender** - A kitchen blade grinder used to blend ingredients or purée food in the container in which they are being prepared.



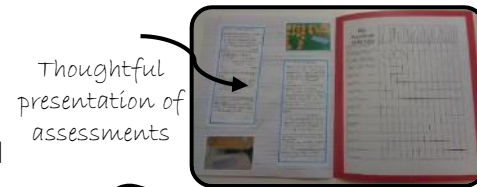
## E. Image



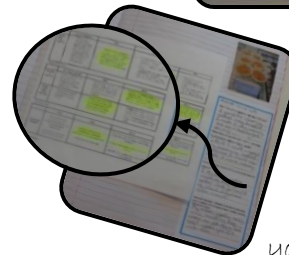
## F. Expert Modelling

Assessments should highlight areas of development. This could include skills, timing or health and safety.

Try to always explain why you found things difficult or how you could improve in future practicals.



Thoughtful presentation of assessments



Success assessment sheet  
Understand your progression

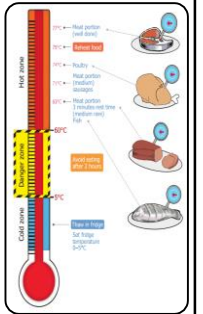
**Subject: Catering**

**Topic: Food Science, Pastry and Special Diets.**

## C. Key Knowledge 2: Kitchen Safety

Don't rely upon sight, smell or taste alone to determine if your food is safe to eat. Make sure foods are cooked to a safe minimum internal cooking temperature

Ensuring foods reach this safe minimum internal temperature with a food thermometer is the only reliable way to ensure safety and to determine the doneness of cooked meats and poultry.



## D. Key Knowledge 3: Special Diets

**Vegan** - *Veganism* is both the practice of abstaining from the use of animal products, particularly in diet

**Coeliac** - Coeliac disease is a permanent, autoimmune disorder that causes a reaction to gluten which is found in wheat, barley, rye and oats.

**Lactose Intolerant** - Lactose intolerance is a common digestive problem where the body is unable to digest lactose, a type of sugar mainly found in milk and dairy products.

## G. Wider thinking / further reading

[www.foodfactoflife.org.uk](http://www.foodfactoflife.org.uk)

<https://www.vegsoc.org/definition>



## A. Keywords

**Shot Putt-** A heavy metal ball used in an athletics throwing event.

**Chin-Knee-Toe-** The starting position the athlete must adopt before they throw the shot. The chin, knee and toe need to be in line.

**Weight transfer-** When the athlete moves their weight from one foot to another in order to gain momentum

**Recording-** Measure the distance. The athlete who throws the shot the furthest wins the competition.

### The Grip-



## B. Key Knowledge 1

Athletes have to incorporate the 3 principles of throwing.

1-The athlete transfers their weight from back foot to front foot during the throw.

2-The shot put travels from low to high.

3-The athlete generates more power in the throw by twisting the hips on release.

## E. Image



## F. Expert Modelling

Compare yourself to the World Record Holders!  
Outdoor Record Men's: Randy Barnes 23.12 m  
Outdoor Record Women's: Natalya Lisovskaya 22.63 m

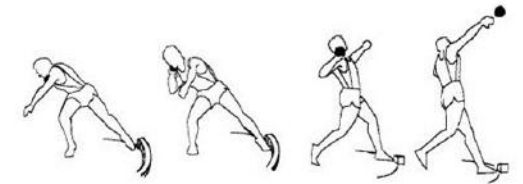
**Subject: Physical Education**  
**Topic: Shot Putt**



## C. Key Knowledge 2

### Key points to remember when throwing:

Demonstrate a Chin, Knee, Toe position.  
The athlete's back is to the direction of the throw.  
The shot put is placed under the chin and against the neck.  
Elbow is kept high.



## D. Key Knowledge 3

### Holding the shot

The shot is held at the base of the fingers not the palm.  
The fingers are slightly spread apart with the thumb for support.  
This can be practiced at home using a tennis ball.

## G. Wider thinking / further reading

<http://www.bbc.co.uk/schools/gcsebitesize/pe/video/athletics/shotputrev1.shtml>