

# YEAR 9



## *Home Learning*



## ***Home Learning – Parent/Carer guide***

These home learning booklets will be emailed to all parents/carers of all students in Years 7, 8 and 9 every 2 weeks on a Monday A week.

The idea is that, across 12 subjects, you will be able to speak with your child about the key pieces of knowledge that they will need to know across that 2 week period. Key Stage 3 is all about students being exposed to a knowledge-rich curriculum so that they know more and remember more about each area of study.

This E-booklet allows all parents and carers to quiz their children, to talk to them about the knowledge and maybe learn things together.

Much like the primary model of learning spellings every week, this allows all parents/carers to know the key knowledge that your child will be learning in the next two weeks and also how well your child is doing in remembering these key pieces of knowledge and information.

It is to be expected that students can remember more towards the end of the two weeks than at the beginning and you should be able to see your child make progress.

This can all be done with no pen, no paper, just discussion. Quiz your child whilst having dinner maybe, or even let them quiz you if you would like to learn together! Of course, you can get your child to write down answers but it is not necessary.

I hope that this new initiative allows parents to be more involved with your child's home learning without the pressure and stress that some homework tasks can put on child/parent relationships.

If you have any questions or would like to know more about home-learning at Penketh High School then please get in touch with me directly on ***ifarrar@penkethhigh.org*** and I will only be too happy to assist in any way I can

Kind Regards

***Ian Farrar***

***Vice Principal – Curriculum and Progress***



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relation  
point of  
**English**  
language  
and the  
reside

## Current Learning

1 Sephy Hadley has decided she want to go to ...

Boarding school (called Chivers)

2 Callum McGregor

Was arrested at home

3 Mrs Jasmine Hadley

Has been spending her money in a surprising way

4 Mr Kamal Hadley

He has come home because of the trial.

5 Mr Jason teaches

History

6 Meggie McGregor

Has been trying to find a solicitor to represent her husband.

7 Ryan McGregor

Has been accused of murder.

8 Jude McGregor

Was not in their house when the police stormed in.

9 Mr Jason treats Callum

Very unfairly (perhaps is even unprofessional in the way he speaks to him).

10 The shopping centre is where ...

The bomb goes off.

## Prior Learning

11 The Liberation Militia are fighting for...

Equality in society

12 The LM has planted a bomb in the ...

Shopping centre

13 Lynette McGregor

Lynette had been in a relationship with a Cross boy, and they had been attacked.

14 Kamal Hadley

Slapped his wife in the Prologue

15 The Prologue

Is a separate introductory part to a novel





**SCIENCE**

# Current Learning

1	How does water move from the roots to the leaves in plants?	Through the xylem in the transpiration stream.
2	How is a leaf adapted to maximise photosynthesis?	Large surface area; palisade layer at the top of the leaf; stomata to allow gas exchange
3	What is the role of the phloem?	Transports sugars from the leaves to other parts of the plant eg roots, fruits, seeds
4	What separation technique would be used to separate an insoluble solid from a liquid?	Filtration
5	What is the Periodic table?	A table of the chemical elements arranged in order of atomic number
6	What is a Halogen?	An element from group 7 in the periodic table eg fluorine, chlorine, bromine
7	Define the term element	A substance made up of one type of atom only
8	What is the equation to calculate charge?	Charge = current x time $Q = I \times t$
9	What is the energy transfer when a battery operated torch is turned on	Chemical energy is transferred to light energy (and thermal)
10	What is Ohm's Law?	Potential difference = current x resistance $V = I \times R$

# Prior Learning

11	How are the alveoli adapted for gas exchange?	Large surface area for more diffusion. Thin walls for a short diffusion pathway.
12	Write the equation for the reaction between magnesium and oxygen	magnesium + oxygen → magnesium oxide
13	What is the chemical formula for carbon dioxide and carbon monoxide?	CO <sub>2</sub> CO
14	Which waves have the shortest wavelength in the EM spectrum?	Gamma rays
15	What is a controlled variable?	A variable that is kept the same during a scientific experiment.



# HISTORY





# Current Learning

1

What was the name of the former slave who escaped and made it to the North in 1849?

Harriet Tubman

2

What was the name of the series of missions into the South to rescue slaves?

Underground railroad

3

Which political party was founded in 1854, dedicated to fighting “slave power”?

Republicans

4

Who was elected president, as the Republican candidate in 1860?

Abraham Lincoln

5

What term means ‘withdrawing from a nation or union to be independent’?

Secede

6

What was the name of the breakaway nation formed by 11 southern states?

Confederate States of America

7

What is the name of the famous speech given by Lincoln on 19 November 1863?

The Gettysburg Address

8

What did Lincoln issue in 1863 that ended slavery and made all slaves in America free?

Emancipation Proclamation

9

How many died during the American Civil War?

600,000

10

What is the name of the Southern fanatic who shot and killed Lincoln?

John Wilkes Booth

# Prior Learning

11

In what occupied country did the Nazis establish their death camps?

Poland

12

Name three of the six Nazi extermination camps.

Auschwitz, Belzec, Chelmno, Majdanek, Sobibor, Treblinka

13

In the death camps, what gas was used to kill the Jews?

Zyklon B

14

After they were killed in the gas chambers, how were the bodies of the victims disposed?

Burnt in giant crematoria

15

What was the name for the units of Jewish prisoners tasked with disposing of bodies in this way?

Sonderkommandos

# GEOGRAPHY



## Current Learning

1	What is development?	The standard of living and how quality of life of humans varies from place to place.
2	How is a country's level of development measured?	Development indicators.
3	What is Gross Domestic Product?	The total value of all goods and services produced in a country, which is then divided by the total population.
4	What is life expectancy?	The average number of years a person is expected to live.
5	What is infant mortality rate?	The number of children per 1,000 live births who die before the age of one.
6	What is the human development index?	This looks at a combined set of indicators - life expectancy, mean years of schooling and gross national income (GNI).
7	What is the population of the Middle East?	411 million
8	What 3 continents make up the Middle East?	Africa, Asia and Europe
9	What are the 3 most common religions in the Middle East?	Islam, Christianity and Judaism.

## Prior Learning

10	What is adaptation?	Involves adjusting to actual or expected future climates.
11	How can we adapt to climate change?	Changing farming practices Coping with rising sea levels Managing water supply
12	How can farming practices be adapted?	New crop types e.g. soya, peaches and grapes in southern England. Drought resistant crops in regions such as the Sahel.
13	How can we manage rising sea levels?	Physical barriers. Flood embankments. Houses on raised ground or stilts.
14	How can we manage water supplies?	Water shortages means more effective use of water is required. Water meters. Rainwater collection. Recycled wastewater (grey water).



MFL

AHOJ  
iHOLA  
HELLO  
MERHABA  
BONJOUR

TER  
OLA  
KUMUSTA  
BONJOUR

HALLO  
HEJ  
HALLO

## Current Learning

1	encender	to turn on
2	apagar	to turn off
3	buscar	to look for/to search
4	bajar/descargar	to download
5	subir	to upload
6	grabar	to record
7	juegan	they play/they are playing
8	compartir	to share
9	mandar	to send
10	proteger	to protect

## Prior Learning

11	fábrica	factory
12	tienda	shop
13	periodista	journalist
14	país	country
15	instalación	facility



# ART





# Current Learning

1	Record	To set down in some form of permanence – Record through sketching, drawing, printing and painting- in our personal sketchbooks.
2	Develop	Refine and develop idea through changing our design when working from 2 dimensional drawings into 3d models.
3	Communication	Using visual elements to convey ideas
4	Secondary Research	Using our past observations and taking inspiration from books, the internet and studio resources.
5	Construct	Building our Seth Clark response in cardboard and collected materials.
6	Layers	More than one sheets or piece of materials, through our model making and collage.
7	Texture	The feel and appearance of a material, selected for our models.
8	De-collage	The opposite of collage; instead of an image being built up of all or parts of existing images, it is created by cutting, tearing away.
9	Single flute (cardboard) Double Flute (Cardboard)	1 layer of corrugated card trapped between 2 layers of flat sheet or 2 corrugated layers of card sandwiched in between 3 layers of flat card. Manipulation of these materials through model making

# Prior Learning

10	Urban Decay	Urban - relating to a town or a city. Decay - the state or process of rotting or decomposition. Referencing the work of Seth Clark.
11	Contextual analysis: Derelict - Architecture	Selecting and recording form the from the design of buildings in very poor condition as a result of disuse and neglect.
12	Composition	The way in which element work together to produce an overall effect, within our sketchbooks to research and within our drawings.
13	Layout	The arrangement of images, text and style on a page – Seth Clark research page.
14	Shading	A slight variation of tones within our drawings and using the pressure of our pencil in our illustrations.





MUSIC



## Current Learning

1	Time Signature	Amount of beats in a bar
2	Syncopation	Off beat rhythms
3	Call and Response	Question and answer musical devices
4	Improvisation	Making up a music rhythm or phrase
5	Crescendo	Gradually getting louder
6	Diminuendo	Gradually getting quieter
7	Accelerando	Gradually getting faster
8	Signal	Musical phase use to signify a change in section
9	Master Drummer	Leader of a drum performance

## Prior Learning

10	Pulse	Constant steady beat, heartbeat of the music
11	Ostinato	Repeated rhythm
12	Polyrhythm	Many rhythms, layered rhythms
13	Note values: Semibreve = 4 Minim = 2 Crotchet = 1 Quaver = 1/2 Semiquaver = 1/4	Duration of notes used in music notation
14	Beat	Main pulse



# RELIGIOUS EDUCATION





## Current Learning

1	Belief	An opinion that something is true often without any real evidence.
2	Conscientious Objector	Someone who refuses to serve in the armed forces for ethical reasons.
3	Harmony	Living peacefully together, getting along with everyone.
4	Interfaith Dialogue	Where different religions talk to each other.
5	Non Violent Protests	A protest (also called a demonstration, remonstrance, or remonstrance) is a public expression of objection, disapproval or dissent towards an idea or action. Non-Violent means without the use or threat of any violence.
6	Pacifists	Someone who believes that war and violence are never justified.
7	Peace	A state or period of time, where there is freedom from disturbance, and everyone can co-exist together without conflict or tension.
8	Peacemaker	Someone who works for peace and an end to conflict.
9	Reconciliation	Is bringing groups of people together who might previously have been in conflict

## Prior Learning

10	Anti Semitism	Hostility or prejudice to Jewish people.
11	Discrimination	To act differently towards or against someone or a group on the basis of prejudice.
12	Equality	The state of being equal, especially in status, rights, or opportunities.
13	Islamophobia	Dislike of or prejudice against Islam or Muslims, especially as a political force.
14	Social Justice	Means ensuring there is equal distribution of wealth, opportunities, and privileges in society.

# DRAMA





## Current Learning

1	What is genre?	The theme / type of play.
2	What does comedy aim to do?	Theatre to make people laugh. A stop in the scene or in a line of text.
3	What does action aim to do?	Theatre to make the audience feel excited.
4	What does drama aim to do?	Theatre to make the audience feel sad.
5	What does horror aim to do?	Theatre to make the audience feel scared.
6	What is a stereotype?	A label given to a group of people that categorises them, this is not necessarily true.
7	What does it mean to exaggerate?	To be over the top and bigger with your physical and vocal skills.
8	Why does exaggeration create comedy?	Because the characters are over the top and larger than life.
9	What does to analyse mean when we feedback?	To consider what the purpose of the choices in the play made were, what are they showing to the audience.

## Prior Learning

10	What is physical theatre?	Representing a story, emotion, event or idea using your body and movement to tell the story.
11	What is dramatic irony?	Where the audience know something that the characters don't.
12	What is facial expression?	Using your face to express emotion.
13	What is a gesture?	A small movement or actions that communicates a meaning to the audience.
14	What does represent mean?	To show something in your performance, e.g. if you walk away from someone, you represent that you don't want to be near them.

An abstract digital artwork featuring a central, upward-pointing structure composed of numerous teal-colored dots and lines. The structure has a conical base that tapers into a more complex, branching form at the top. The background is dark, with scattered teal dots and concentric, wavy lines radiating from the base of the central structure, creating a sense of depth and digital connectivity.

# COMPUTER SCIENCE

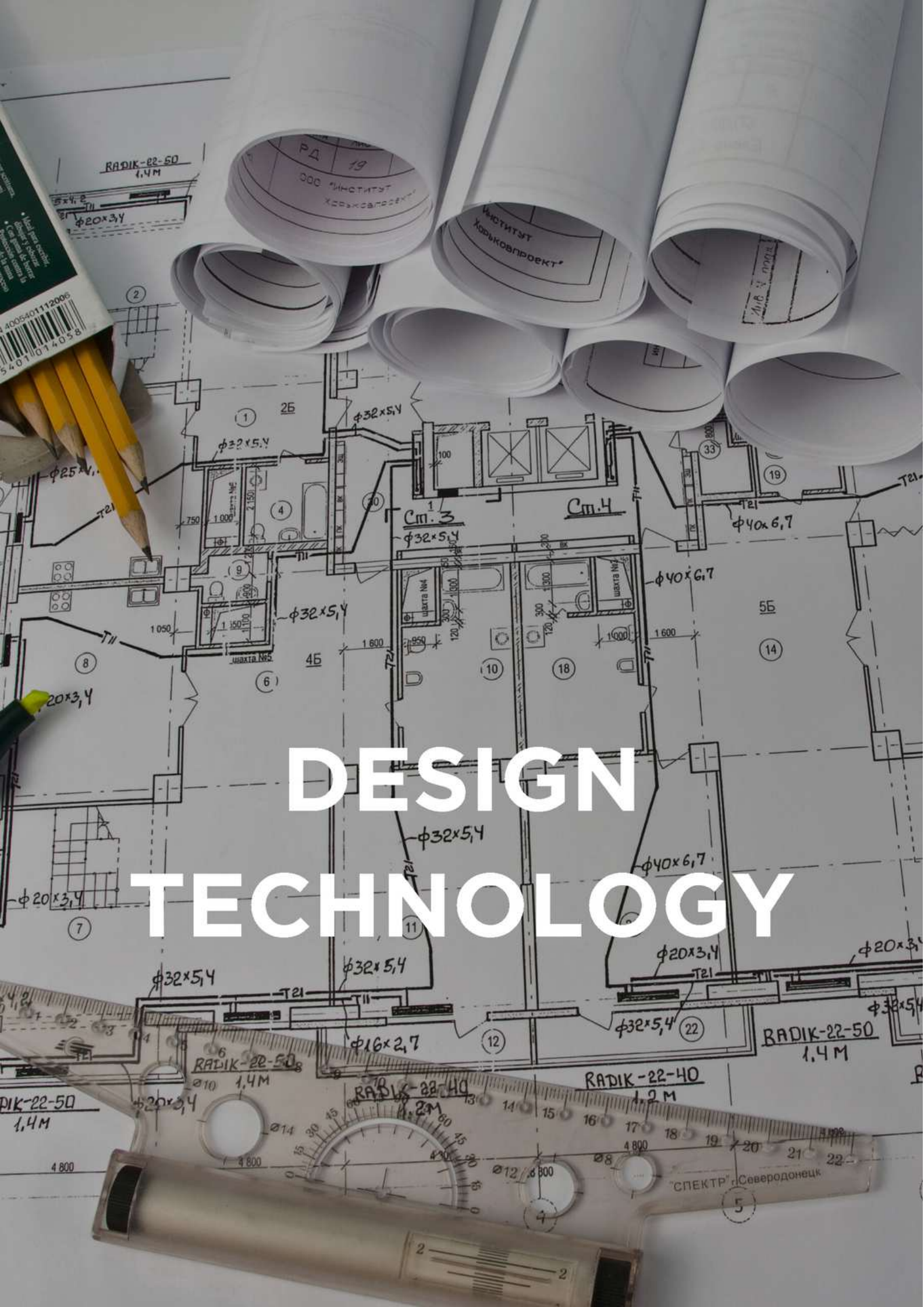


## Current Learning

1	Random Access Memory (RAM)	Random access memory (RAM) is the memory in a computer that is used to store computer programs while they are running and also any data the programs need to undertake their task
2	Read Only Memory (ROM)	ROM is 'read only' memory. Its contents cannot be changed or overwritten (RAM can). It is non-volatile. It keeps its data when there is no power supply.
3	Virtual memory	As RAM fills to capacity, the operating system can temporarily mark sections of the hard disk to use as virtual memory.
4	Volatile memory	If the power fails i.e. the computer is switched off, even for a moment, then anything that was stored in the RAM will be lost. The term for this is 'volatile' memory
5	Non- Volatile memory	It is a type of memory that does not require power to keep its data intact. For example, ROM - Read Only Memory will retain its data even with the power switched off.
6	Secondary storage	Data and programs that are not running on a CPU are stored in secondary storage. Data is retained long term. The three types of secondary storage are Optical, Magnetic and Solid state.

## Prior Learning

7	Cyber attack	An attack on an organisation that tries to access their systems to steal large quantities of data.
8	Malware	Malicious software is intended to cause damage to files and systems.
9	Encryption	Converts information using a public encryption key into a meaningless form that cannot be read if intercepted.
10	Social engineering	The art of exploiting human psychology, rather than technical hacking techniques, to gain access to buildings, systems or data
11	Hacking	A term used to describe illegal access of computer systems by unauthorised users.



# DESIGN TECHNOLOGY



# Current Learning

1	What is a wood joint?	Joinery is a part of woodworking that involves joining together pieces of wood or lumber, to produce more complex items.
2	What is glass paper?	Paper covered with powdered glass, used for smoothing and polishing
3	What is a lap joint?	A joint made by halving the thickness of each member at the joint and fitting them together.
4	What is a wood inlay?	Inlaying contrasting material adds an eye-catching element to any wooden object.
5	What is a man-made wood? Name 1?	All manufactured boards are man made by using solid timber fibres, strands, particles, and veneers being glued together. Plywood. MDF, Hardboard, chipboard
6	What is a disc sander?	A machine having one or more flat circular disks faced with abrasive for smoothing wood surfaces
7	What is a natural wood? Name 1?	A wood that comes from a tree Pine, oak, beech, birch, mahogany
8	What does MDF stand for?	Medium density fibreboard
9	What is sand sealer? And what does it do?	A sanding sealer can be used on bare timber products, it protects the timber making it resistant to water and adds a shinney finish
10	What does assemble mean?	To fit together the separate component parts of a machine or other object.

# Prior Learning

11	What is a wood joint?	Joinery is a part of woodworking that involves joining together pieces of wood or lumber, to produce more complex items
12	What is glass paper?	Paper covered with powdered glass, used for smoothing and polishing
13	What is a client?	A client is a person or organization using the services of a professional person or company
14	What is a disc sander?	A machine having one or more flat circular disks faced with abrasive for smoothing wood surfaces
15	What is sand sealer? And what does it do?	A sanding sealer can be used on bare timber products, it protects the timber making it resistant to water and adds a shinney finish.

# FOOD TECHNOLOGY





## Current Learning

1	Food miles	Food miles
2	Carbon footprint	a measure of the amount of carbon dioxide released into the atmosphere as a result of the activities of humans.
3	Sustainable	using natural resources in a way that we could keep doing for a long time. We can be more sustainable by reducing our use of natural resources.
4	Agriculture	both growing and harvesting crops and raising animals, or livestock.
5	Emissions	is something that's been released or emitted into the world. Car exhaust, burps, and radio broadcasts are all examples of emissions.
6	Greenhouse gas	gases in the earth's atmosphere that trap heat.
7	Methane	Greenhouse gas produced by human activities like farming.
8	Synthetic	Made in a chemical process and isn't found naturally on earth eg synthetic rubber or plastic
9	Fertiliser	A substance (such as animal manure or an artificial chemical, particularly one that contains nitrogen, phosphorus, and potassium) that is added to soil to increase its productivity for crops.

## Prior Learning

10	Low biological value protein (LBV)	Low biological value (LBV) proteins are missing one or more of the essential amino acids we need.
11	High biological protein (HBV)	High Biological value (HBV) proteins contain all the 10 essential amino acids. Functions in the body.
12	Amino Acids	Amino acids are molecules that combine to form proteins. Amino acids and proteins are the building blocks of life
13	Deficiency	a lack or shortage
14	Protein deficiency (Kwashiorkor)	Kwashiorkor is a disease marked by severe protein malnutrition and bilateral extremity swelling. It usually affects infants and children, most often around the age of weaning through age 5. The disease is seen in very severe cases of starvation and poverty-stricken regions worldwide