The John of Gaunt School
A Community Academy

Name TG

Year 10

Knowledge Organisers

Term 2 - 2025

Career readiness means being prepared to succeed in the world of work — not just having a job, but being ready to grow, learn, and thrive in a career. It's about having the skills, knowledge, and attitudes that employers look for. The activities below are to help you reach career readiness.

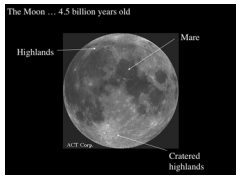
Term 1 	What is a career? You will be able to identify career sectors Using the careers library Using the know how library	Resources on unifrog What is a career digital workbook What is a career ppt	These are the tasks on unifrog and the suggested time when to do them. You are given the title of the resources so that you can find them yourself but they will appear on unifrog. You will get an email notification. The tasks are tracked. The activities include the teacher powerpoint, which gives suggestions. Sometimes, it might be good to do the activity with a friend or parent so that you can share ideas. The powerpoints are designed for a class of 30 pupils and have the teacher notes to help you. When working on your own, it will take 15 – 30 mins for the activities and longer for the thinking. Create a folder in which to save your worksheets.
	Reflecting on my career What is important to me in my career Record an activity on the activity tool	Reflecting on a career journey workbook Reflecting on a career journey ppt	
Term 2 	Who are employers? How to research employers What skills do employers want? How to find vacancies Am I suitable for that role?	Exploring employer profiles workbook Exploring employer profiles ppt	
	What career is suitable for me? The difference between career and job Learning to use the careers library	What type of career is best for me? Workbook What type of career is best for me? ppt	
Term 3 	Interests profile	Interests profile ppt Interests profile quiz	
	Personality profile Learning about psychometric testing	Personality profile ppt Personality profile quiz Knowledge about psychometric testing through hyperlinks in the ppt	
Term 4 	Work environment profile	Work environment ppt	Useful websites to use https://www.johnofgauntschool.org/parents-and-carers/careers-information https://nationalcareers.service.gov.uk/ https://www.gov.uk/apply-apprenticeship https://www.ucas.com/ https://www.wiltshire.ac.uk/ https://www.bathcollege.ac.uk/
	Skills profile What are skills The skills tool	Skills profile ppt Skills quiz What are skills hyperlink in ppt	
Term 6 	Skills test How do your skills compare to other students your age	Skills profile part 2 ppt Skills test – hyperlink in ppt	
	Reflecting on your psychometric tests	Reflecting on your psychometric tests workbook Reflecting on your psychometric tests ppt	

Terms 2 - 6	Work Experience		

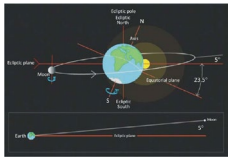
Astronomy GCSE. Term 2

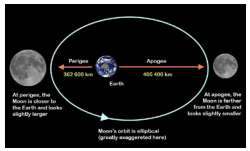
The Lunar Disc

Recall and Describe the surface features of the Moon.



Describe the Moon's orbit





Explain Librations and how they can be used.

Key words; *All the ones from last time any words in bold plus the list below.*

Seas - maria

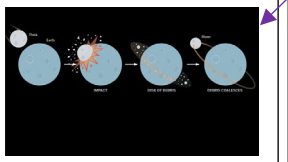
Highlands – terra

Tidal gravitational forces

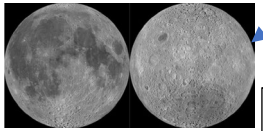
Synchronous rotation

Lunar libration

Sidereal month

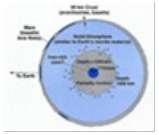


Exploring the Moon

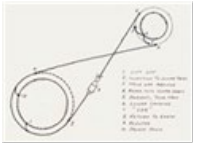


Near side and far side.

Describe the internal divisions of the Moon.



Describe a variety of probes that have gone to the Moon and their roles.



Origin of the Moon.

Most popular theory;

The Giant Impact Hypothesis, involving a collision between a large body and Earth.

Describe alternative formation theories;

1.Fission Theory

2.Capture Theory

3.Condensation (Co-accretion) **Theory**

Exploration of the Solar System- Planets and dwarf planets

1.Terrestrial planets: Small rocky planets with iron cores. *Mercury, Venus, Earth and Mars.*

2.Giant planets: Liquid interiors and atmospheres of hydrogen and helium with small amounts of methane and ammonia. *Jupiter, Saturn, Uranus and Neptune*.

3.Dwarf planets: Smaller than planets. Eg *Ceres, in the Asteroid Belt and Pluto, Eris and Makemake in the Kuiper Belt in the outer part Solar System.*

1. **Astronomical phenomena visible to the naked eye.**

Stars, including the Sun, moon, planets (mercury, venus, mars, Jupiter and Saturn), comets, etc.

2.Recognise and be able to draw **constellations** and **asterisms,** including **The Plough, Cassiopeia, Cygnus and The Great Square of Pegasus etc. and constellations in the Zodiacal Band.**

3. **Asterisms** as pointers to locate specific objects in the night sky eg. Ursa Major (The Plough) is a distinctive constellation that can be used to find **Polaris**. (The Pole star).

Transparency of the atmosphere and **seeing conditions**. Note: the **Antoniadi Scale**.

19. **Factors affecting visibility.**

6.The causes and effects of **light pollution** on observations of the night sky.

17. Be able to find the **latitude** of an observer using **Polaris**.

Practical observation

18. **Naked eye techniques** such as **dark adaption, the function of rods and cones** and **averted vision**.

Circumpolar Stars

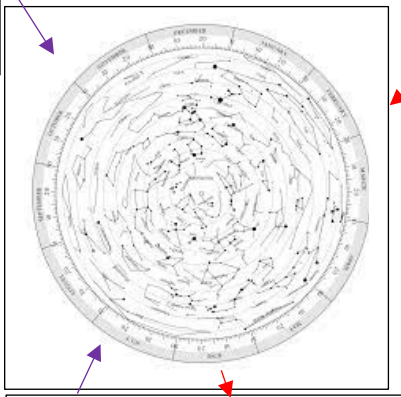
14. Use a star's **declination** to determine whether the star will be **circumpolar** from an observer's **latitude.**

20. The appearance of the **Milky Way** from Earth as seen with the naked eye.

15. Apparent motion of **circumpolar stars**, including **upper transit** (**culmination**) and **lower transit**.

5.Using **Star charts**, **planispheres**, **computer programmes** or '**apps**' to identify objects in the night sky.

9. Use of the observer's **latitude** to link the **equatorial** and **horizon coordinates** of an object for the observer's **meridian**.



12.Understand the terms; **Circumpolarity, Celestial sphere, celestial poles** and **celestial equator.**

11. Using information on **equatorial** and **horizon coordinates** to determine the **best time to observe a celestial particular object** or the **best object(s) to observe at a particular time.**

16. Be able to use information about **rising** and **setting times** of **stars** to **predict** their approximate **position in the sky.**

Small Solar System Objects (SSSOs)

Asteroids: *Rocky objects with diameters of less than 1000km*

Meteorites: *Rocky objects of less than 10m diameter.*

Comets: *Mixtures of compacted dust rock and ice (more about these later!)*

Knowledge Organiser

Unit 1: Business Activity

1:4 Business Aims and Objectives

Business objectives: are what the business wants to achieve

Survival
The business can pay its costs but has nothing left
Profit
The difference between revenue and costs
Market share
The share of the total market for a product
Growth
The business becomes larger

As businesses evolve their objectives may change

Initially: the aim may be to simply survive
Later: the aim may be to increase profit or market share

The objectives will also depend on the type of business ownership i.e. sole trader or limited company

1:5 Stakeholders in Business

Stakeholders are: groups of people or individuals who have an interest in a business

Internal stakeholders
People with an interest in and who work in the business

External stakeholders
People with an interest in but who are outside of the business

Stakeholder	Internal or external	Effects
Owners	Internal	See profit as their main aim so will want to run the business cost effectively
Employees	Internal	Employees want to be treated well and receive a fair wage. Without this they could go on strike
Customers	External	Customers want to receive a good service and pay a fair price. Without this they could go to competitors
Suppliers	External	Suppliers want to be paid on time. Delayed payments could mean the supplier refuses orders
Government	External	The government wants businesses to succeed however an increase in income tax means less money for customers
Local community	External	The local community will want jobs in their area however they could protest against a new business development

Organic growth
Internal growth using own resources i.e. opening more shops
Merger
Two or more businesses agreeing to join together
Takeover
One business takes control of another
Horizontal growth
Two businesses in the same production sector joining together
Vertical growth
Two businesses in different production sectors joining together

1:6 Business Growth

There are two methods of business growth:

Organic growth	External growth	
	Merger	Takeover

- **Increasing output**
  Selling more products
- **Gaining new customers**
  Reduce the price, open more shops
- **Developing new products**
  To target a wider range of customers
- **Increasing market share**
  Selling more than competitors

Horizontal
Two businesses in the same production sector

Vertical
Two businesses in different production sectors

Diversification
Two businesses coming together with no connection

Assessment Information

Your assessment will take place during a normal timetabled lesson but you should be revising at home.

Number of marks available: 40
Time allowed: 50 minutes

Answer **ALL** of the questions

The first 10 questions will be multiple choice - you must only select **ONE** answer, selecting two will score 0 marks.

The other questions will include a range of 2, 3, 4, 6, 7, & 9 mark questions

Possible questions

1. State two aims of a new start up business.
2. Define the term 'entrepreneur'.
3. Explain how a business' objectives may have changed since first starting out.
4. Analyse how a business decision may impact on two stakeholders.
5. Analyse two benefits of being a public limited company.
6. Evaluate the effectiveness of a business plan.

State **Explain** **Analyse** **Recommend** **Evaluate**

R059 Plan and evaluate play activities

1: **Add details**: name of child (initials only) age of child, when the activity will take place, where the activity will take place

2. Briefly describe the activity you have planned. Give it a **clear title.**
This could include: mark making, gardening. What's the time Mrs Wolf?, ride on bikes, stepping stones, collage, model making…..

3. **Developmental area** What area of development are you targeting/promoting?

4. Reasons for choice. Explain how this activity will help the children's development in the area you have chosen. Explain how it will relevant to a particular child and their developmental norms

5. Aims: Identify what area of the child's development needs support/developing. Focus on the specific skill you wish to promote and link it to the area of development. E.g. The aim may be to develop the fine motor skill of fastening and unfastening buttons. Make sure the aim is measurable

6. Timing Take into consideration the time it will take. Break the activity into parts and think about the time needed for each one e.g. the introduction, developing the activity, time for the child to put things away, time for the child to talk about what they have done.

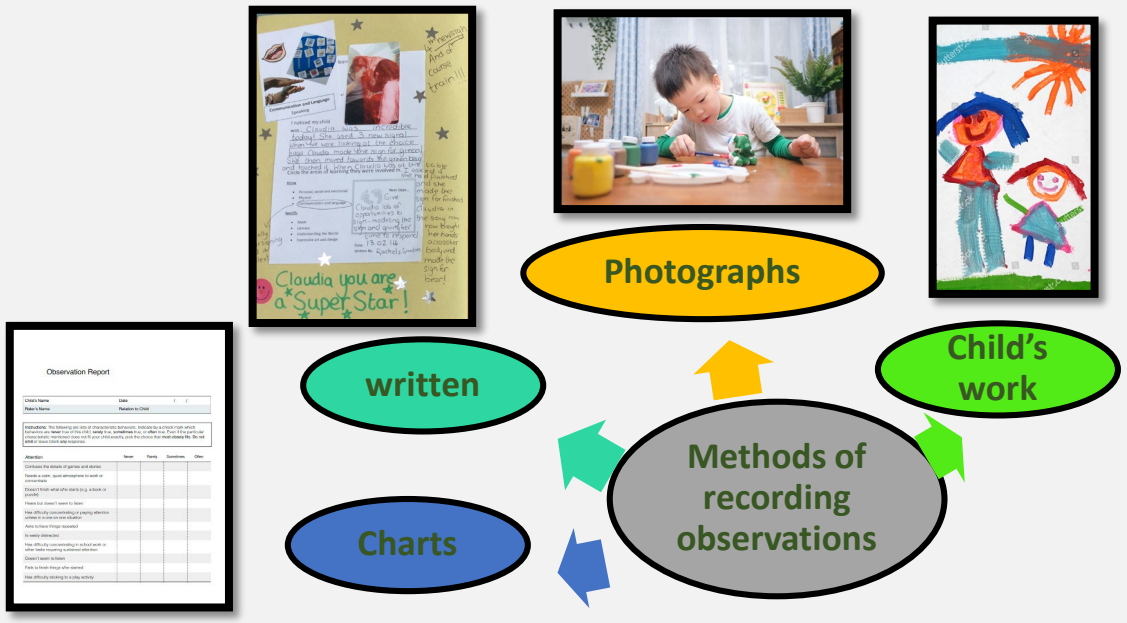
7. Safety considerations Think carefully about any safety issues there may be and explain how you will reduce this risk. Consider: where the activity will take place, the equipment needed, how you will supervise it. Consider the weather if you are doing the activity outside. Think about safety labels

8. Resources This includes everything you need to carry out the activity. Eg. Space needed, materials, equipment**,** List all the equipment you will need for the activity. Check that these will be available and are in usable condition.

9. **How will you introduce the activity to the child?** You need to capture the child's interest so they are keen to be involved. You might start by reading a story to inspire them, or show resources or material they could use, Think about if you will introduce the activity and step back or play alongside the child.

Child Development Year 11 term 2

Method of observation	What the method involves
Narrative	A detailed written description of what is being observed over a short period of time.
Checklist	A list of possible skills is produced so that the observer can check off the child's skills as they are observed.
Snapshot	A brief note is made about a child to capture something they do or a skill they use.
Time sample	Capturing information about what a child is doing at particular times of the day. It could be how they play or how they behave.



Computer Science

Algorithms

Sequence

Addition example code

```
number1 = int(input("Input the first number :"))
number2 = int(input("Input the second number :"))
answer = number1 + number2
print("The answer is " + str(answer))
```

The code above takes two number inputs and stores them as variables called number1 and number2. It then adds these together and saves them in a variable called answer.

The final line prints the answer out in a sentence.

Iteration

for i in range(0,10):	Repeats any code indented after this line a set number of times, in this case, 10.
while x < 10:	Repeats any code indented after this line until a condition is met, in this case x becoming equal to or greater than 10.
list = [“”,“”]	Creates a variable and makes it an array – a list which can store many values.

Selection

Selection example code

```
fav_num = int(input("Pick a number between 1 & 10..."))

if(fav_num == 7):
   print("Good guess!")
elif(fav_num < 7):
   print("Too low!")
else:
   print("Too high!")
```

The code above inputs a number. If the number is 7 it will print “Good guess!”, if it is less than 7 it will print “Too low!” and for anything else it will print “Too high!”.

Key vocab

Method	Description	Method	Description
.length	Outputs the length in characters of the string.	.count(x)	Outputs the number of instances of x in the string.
.substring(x,y)	Outputs the character that are between positions x and y.	.reverse	Outputs the characters of the string but in reverse.
.upper	Outputs the string in upper case.	.split	Splits the string, into a list, usually where there are spaces.
.lower	Outputs the string in lower case.	string[3]	Outputs the character at index 3.
.replace(x,y)	Outputs the string but with all instances of x being replaced with y.	.strip(x)	Outputs the string but with any instances of x removed from the front and end of string.

Key content

Concatenating Strings

This means joining multiple strings together. A plus symbol (+) is used in Python.

greeting = “Hello”
name = “Elizabeth”

```
print(greeting + " " + name)
```

```
Hello Elizabeth
```

More info can be found here:
https://youtu.be/wLJ1n47sGRI

Drama

Blood Brothers

Character Overview

Character	Explanation
Mrs Johnstone	Represents lower class Liverpool. Struggles financially and is naïve to Mrs Lyons. Always portrayed as a positive maternal force.
Mrs Lyons	Represents upper class Liverpool. Manipulates and takes advantage of Mrs Johnston. Devious. Mental health deteriorates throughout play.
Mickey	Represents lack of education and opportunity. Is portrayed as friendly and energetic in his early years, awkward and shy throughout his teenage years and hopeless in adulthood.
Edward	Represents education and opportunity. Is portrayed as a loyal, protective friend. He struggles to empathise with Mickey but ultimately puts the needs of his friends before his own on multiple occasions/
Linda	Represents lower class Liverpool. Is kind and fiercely protective of both Mickey and Edward. Marries Mickey but is drawn to Edward.

Theme Overview

· Class and Money—controls characters actions and determines character lives
· Nature vs nurture—concerns the question, is a person's character determined more by their genetics or by environment
· Superstition and fate—was what happened in the play fated, or did the characters have a choice/did they make what happened come true
· Coming of Age—we see the character grow from infants to adults and highs and lows of each life stage
· Power of the past—the hold the past has over what happens in the future
· Violence—present throughout play.

Context Overview

1970s Liverpool. Conservative Party were in power, Margaret Thatcher was the first female Prime Minister. In working class Liverpool there was a rise in crime rates, unemployment and drug abuse. Marilyn Monroe is a celebrity referenced in the play, although Monroe was depicted as very glamorous she in fact died of a drug overdose at a young age.

Question breakdown

Set	**You could be asked to design an appropriate set for a specific scene, remember you must include key terminology e.g. fly, truck, prop, graffiti**
Costume	You could be asked to design an appropriate costume for a specific character, remember you must include key terminology e.g. fabric, fit, detail, colour, quality
Lighting	You could be asked to design an appropriate lighting state for a specific scene, remember you must include key terminology e.g. profile spot, gobo, wash, birdie up light, haze, moving head
Sound	You could be asked to design an appropriate sound state for a specific scene, remember you must include key terminology e.g. motif, reverb, minor/major chord, SFX, live music
Physical and Vocal skills	You could be asked a question on WHAT vocal and physical skills you would use to deliver specific lines/extracts or sections. This links to how you would interpret the character e.g. 'Mrs Johnstone is caring so I would use a soft tone of voice.'

Key physical and vocal skills

Word	Definition
Facial expressions	Use of face to communicate
Body language	Use of body to communicate
Eye-contact	Where you are looking
Posture	The way we hold ourselves
Spatial relationships	How far or close you are to other actors
Demeanour	A characters' attitude
Rhythm	The pace of movement being steady and ritualistic
Soundscape	The use of sound to create atmosphere

ENGINEERING YEAR 10 MODULE 2 Modern Materials

KEY WORDS

Smart Materials:- Materials that change their properties in response to changes in the environment.

Thermochromic:- A material that chances colour with specific temperatures.

Photochromic:- A material that chances colour with light.

Composite:- Combination of materials that take on different properties from each material.

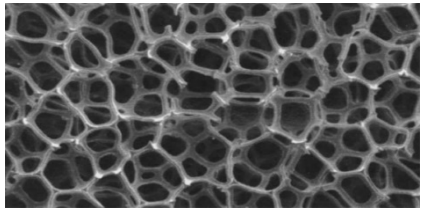
Microencapsulation:- Very thin fibres that hold tiny chemical capsules.

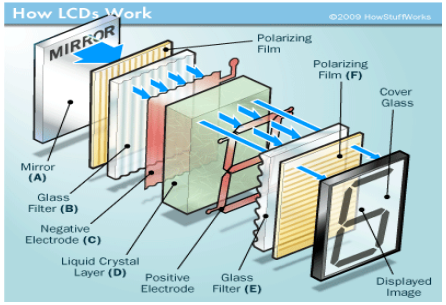
Polymer:- are molecule, made from joining together many small molecules called monomers.

Molecule:- a group of atoms bonded together.

Metal Foam

This is a metal, that when in its liquid state is injected with a gas. When cooled it turns into a porous material that can absorb energy well. It is very lightweight and has a high compressive strength.





Teflon

This is a trade name for a polymer called **Polytetrafluoroethylene** or **PTFE**. It is a material that was invented by accident and was found to have a very slippery surface. It is normally found in fabrics and on surfaces of pans.

Kevlar

This is a material formed by combining terephthaloyl chloride and para-phenylenediamine in to threads. These threads can be then woven into a fabric which is incredibly strong and lightweight.

Gore-Tex

This is a waterproof breathable fabric which contains layers of PTFE. It is generally used for outdoor clothing and shoes.

Liquid crystal display (LCD)

This is two layers of thin glass with a liquid crystal core. When a voltage is then applied, light can go through the panel. Used for smart phone screens and televisions.

Polymorphic materials

These are materials that can be changed by heat to become soft so that they can be shaped then when cool become rigid.

Graphine

Is a very modern thin two-dimensional material made up of layers of carbon. It is very strong and very light weight. It is harder than diamond and about 300 times stronger than steel. It is currently the lightest known material.

KEY POINTS

Graphine:- a very light and flexible material

Teflon :- a non stick material.

Corn starch :- a polymer material which bio-degrades

Kevlar :- a very light but strong material.

Gore-tex :- a breathable and waterproof material

Extension Task

Research into other modern materials and list how they are used in different products?

Name:

Date:

Food science

Functions of ingredients
Ingredients provide a variety of functions in recipes.

Carbohydrate, protein and fat
Carbohydrate, protein and fat all have a range of properties that make them useful in a variety of food products.

Carbohydrates perform different functions in food.
They can:
- help to cause the colour change of bread, toast and bakery products (dextrinisation);
- contribute to the chewiness, colour and sweet flavour of caramel;
- thicken products such as sauces and custards (gelatinisation).

Maillard reaction
Foods which are baked, grilled or roasted undergo colour, odour and flavour changes. This is primarily due to a group of reactions involving amino acids (from protein) and reducing sugars.

Dextrinisation
When foods containing starch are heated they can also produce brown compounds due to dextrinisation. Dextrinisation occurs when the heat breaks the large starch polysaccharides into smaller molecules known as dextrins which produce a brown colour.

Caramelisation
When sucrose (table sugar) is heated above its melting point it undergoes physical and chemical changes to produce caramel.

Gelatinisation
When starch is mixed with water and heated, the starch granules swell and eventually rupture, absorbing liquid, which thickens the mixture. On cooling, if enough starch is used, a gel forms.

Proteins perform different functions in food products.
They:
- aerate foods, e.g. whisking egg whites;
- thicken sauces, e.g. egg custard;
- bind ingredients together, e.g. fishcakes;
- form structures, e.g. gluten formation in bread;
- gel, e.g. lime jelly.

Gluten formation
Two proteins, gliadin and glutenin, found in wheat flour, form gluten when mixed with water. Gluten is strong, elastic and forms a 3D network in dough. In the production of bread, kneading helps untangle the gluten strands and align them. Gluten helps give structure to the bread and keeps in the gases that expand during cooking.

Gelation
Gelatine is a protein which is extracted from collagen, present in animal connective tissue. When it is mixed with warm water, the gelatine protein molecules start to unwind. On cooling, a stable, solid network is formed, trapping the liquid.

Denaturation
Denaturation is the change in structure of protein molecules. The process results in the unfolding of the protein's structure. Factors which contribute to denaturation are heat, salts, pH and mechanical action.

Coagulation
Coagulation follows denaturation. For example, when egg white is cooked it changes colour and becomes firmer (sets). The heat causes egg proteins to unfold from their coiled state and form a solid, stable network.

Aeration
Products such as creamed cakes need air incorporated into the mixture in order to give a well-risen texture. This is achieved by creaming a fat, such as butter or baking spread, with sugar. Small bubbles of air are incorporated and form a stable foam.

Fats performs different functions in food.
They help to:
- add 'shortness' or 'flakiness' to foods, e.g. shortbread, pastry;
- provide a range of textures and cooking mediums;
- glaze foods, e.g. butter on carrots;
- aerate mixtures, e.g. a creamed cake mix;
- add a range of flavours.

Plasticity
Fats do not melt at fixed temperatures, but over a range. This property is called plasticity.

Colloidal systems
Colloidal systems give structure, texture and mouthfeel to many different products.

System	Disperse phase	Continuous phase	Food
Sol	Solid	Liquid	Unset jelly
Gel	Liquid	Solid	Jelly
Emulsion	Liquid	Liquid	Mayonnaise
Solid emulsion	Liquid	Solid	Butter
Foam	Gas	Liquid	Whipped cream
Solid foam	Gas	Solid	Meringue

Raising agents
Raising agents include anything that causes rising within foods, and are usually used in baked goods. Raising agents can be:
- biological, e.g. yeast;
- chemical, e.g. baking powder;
- mechanical, e.g. adding air through beating or folding.

Functional ingredients
These are ingredients that are specifically included in food for additional health benefits. They include:
- probiotics – 'good' bacteria that may have a positive impact on human health;
- prebiotics – food ingredients that promote the growth of beneficial microorganisms in the gut;
- sterols/stanols – compounds that can lower cholesterol;
- healthy fats (e.g. omega-3);
- added vitamins and minerals (more than in the original food).

Why is food prepared and cooked?
Food is prepared and cooked to:
- make the food more palatable – improves flavour, texture and appearance;
- reduce the bulk of the food;
- provide variety and interest to meals.

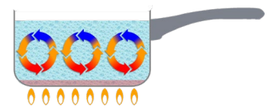
Methods of cooking food
The methods of cooking are divided up into groups. These are based on the cooking medium used.
They are:
- moist/liquid methods, e.g. boiling;
- dry methods, e.g. grilling;
- fat-based, e.g. frying.

Selecting the most appropriate way of preparing and cooking certain foods is important to maintain or enhance their nutritional value.
- Vitamins can be lost due to oxidation during preparation or leaching into the cooking liquid.
- Fat-based methods of cooking increase the energy (calories) of the food.
- The use of different cooking methods affects the sensory qualities of the food.

Key terms
Conduction: The exchange of heat by direct contact with foods on a surface.
Convection: Currents of hot air or hot liquid transfer the heat energy to the food.
Functional ingredients: Included in food for additional health benefits.
Heat transfer: Transference of heat energy between objects.
Radiation: Energy in the form of rays.

Tenderisation
- Mechanical tenderisation – a meat cleaver or meat hammer may be used to beat the meat. Cutting into small cubes or mincing can also help.
- Chemical tenderisation (marinating) –the addition of any liquid to flavour or soften meat before cooking.

There are three ways that heat is transferred to food.
- Conduction – the exchange of heat by direct contact with foods on a surface.
- Radiation – energy in the form of rays.
- Convection – currents of hot air or hot liquid transfer the heat energy to the food.



Tasks
1. Choose a recipe that you enjoy or have made recently and explain in detail the functions of the ingredients.
2. Explain the function of raising agents, giving examples of recipes.

To find out more go to: https://bit.ly/2SPqWEG

This resource meets the ***Guidelines for producers and users of school education resources about food.***

Name: Date:

Sensory science

Using our senses

A range of senses are used when eating food:

- sight;
- smell;
- hearing;
- taste;
- touch.

A combination of these senses helps to evaluate a food.

Appearance

The size, shape, colour, temperature and surface texture all play an important part in helping to determine first reactions to a food.

Taste

There are five basic tastes:

- bitter;
- salt;
- sour;
- sweet;
- umami.

Smell (odour or aroma)

The nose detects volatile aromas released from food. An odour may be described by association with a particular food, e.g. herby, cheesy, fishy.

The intensity can also be recorded. Odour and taste work together to produce flavour.

Touch

Food texture is the way food is felt by the fingertips, tongue, teeth and palate. When food is placed in the mouth, the surface of the tongue and other sensitive skin reacts to its surface texture. This sensation is known as mouthfeel.

Hearing (sound)

The sounds of food being prepared, cooked, served and eaten all help to influence our preferences. The sound of eating food can alter our perception of how fresh a food is, e.g. crunchy carrots.

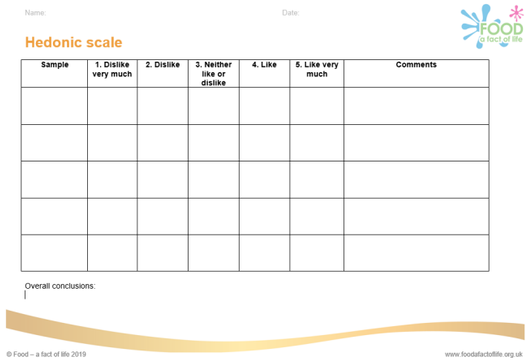
	Tasting vocabulary (sensory attributes)		
Sight	Bubbling	Flaky	Opaque
	Caramelised	Firm	Smooth
	Clear	Heavy	Solid
	Coarse	Icy	Steaming
	Crumbly	Juicy	Sticky
	Dry	Moist	Thick
Smell	Acidic	Fresh	Spicy
	Aromatic	Meaty	Strong
	Bland	Mild	Sweet
	Citrus	Pungent	Tart
	Earthy	Savoury	Weak
	Fragrant	Smoky	Zesty
Sound	Brittle	Crisp	Pop
	Crackle	Crunch	Sizzle
Taste	Bitter	Rich	Strong
	Bland	Salty	Sweet
	Floury	Savoury	Tangy
	Hot	Smoky	Tart
	Mild	Sour	Umami
	Piquant	Spicy	Zesty
Touch	Brittle	Dry	Short
	Bubbly	Gooey	Soft
	Chewy	Granular	Solid
	Close	Greasy	Tacky
	Cloying	Moist	Tender
	Coarse	Open	Waxy

Sensory evaluation and tests

Sensory evaluation analyses and measures human responses to food and drink, e.g. appearance, touch, odour, texture, temperature and taste. In order to obtain reliable results, sensory evaluation tests should be set up in a controlled way to ensure fair testing, e.g. no distracting colours, noise or smells; same size portions; coded samples, and water to drink.

Preference tests - these types of tests supply information about people's likes and dislikes of a product. They are not intended to evaluate specific characteristics, such as crunchiness or smoothness. They are subjective tests and include hedonic, paired comparison and scoring.

Discrimination tests - these types of tests aim to evaluate specific attributes, i.e. characteristics of products (crunchiness). They are objective tests and include triangle, duo trio, ranking and paired comparison.



Name: Date:

Hedonic scale

Sample	1. Dislike very much	2. Dislike	3. Neither like or dislike	4. Like	5. Like very much	Comments

Overall conclusions:

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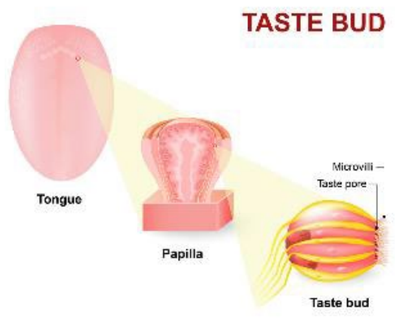
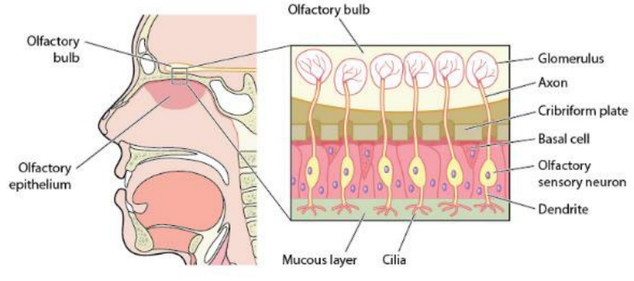
Taste receptors

Our tongues are covered with taste buds, which are designed to sense chemicals in the mouth. Most taste buds are located in the top outer edges of the tongue, but there are also receptors at the back of the tongue as well as on the walls of the mouth and at the back of the throat. As we chew food, molecules mix with saliva, enter taste pores and interact with gustatory hairs, also known as taste receptors. This triggers nerve impulses that are transmitted to the brain.



Olfactory system

This is the sensory system used for olfaction, or the sense of smell. As we breathe in, the olfactory receptor cells are stimulated by odours and the olfactory membrane sends neural messages up the olfactory nerve to the brain.



Key terms

Fair testing: Ensuring that sensory tests obtain reliable results.
Food texture: The way food is felt by the fingertips, tongue, teeth and palate.
Olfactory system: The sensory system used for olfaction, or the sense of smell.
Senses: Sight, smell, hearing, taste and touch are all used when eating food and drink.
Sensory attributes: Words used to describe the appearance, odour, taste and texture of a food product
Sensory evaluation: Analyses and measures human responses to food and drink.

Intensity

Foods may be described by association, e.g. meaty, minty or fruity.

The intensity (low, medium or high) can also be recorded, e.g. garlicky or salty.

Tasks

1. Write a guide to conducting sensory evaluation tests that are fair and reliable.
2. Research umami and make a dish that is rich in the taste of umami.

To find out more, go to: https://bit.ly/2Bzsqq5

This resource meets the ***Guidelines for producers and users of school education resources about food***.

Unit 1b

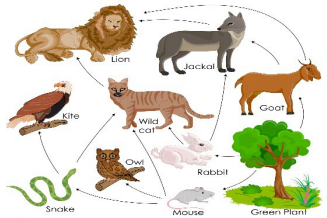
The Living World

What is an Ecosystem?

An ecosystem is a system in which organisms interact with each other and with their environment.

Ecosystem Components

Abiotic	These are **non-living**, such as air, water, heat and rock.
Biotic	These are **living**, such as plants, insects, and animals.
Flora	**Plant life** occurring in a particular region or time.
Fauna	**Animal life** of any particular region or time.



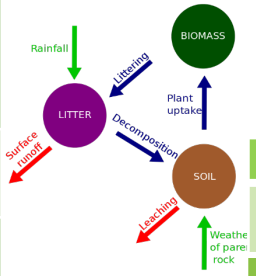
Food Web and Chains

Simple **food chains** are useful in explaining the basic principles behind ecosystems. They show only one species at a particular trophic level. **Food webs** however consists of a network of many food chains interconnected together.

Nutrient cycle

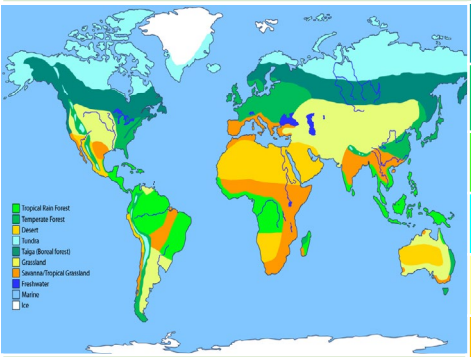
Plants take in **nutrients** to build into new organic matter. Nutrients are taken up when animals eat plants and then returned to the soil when animals die and the body is broken down by **decomposers**.

Litter	This is the **surface layer** of vegetation, which over time breaks down to become **humus**.
Biomass	The total **mass of living organisms** per unit area.



Biomes

A biome is a **large geographical area of distinctive plant and animal groups**, which are adapted to that particular environment. The climate and geography of a region determines what type of biome can exist in that region.



	Coniferous forest
	Deciduous forest
	Tropical rainforests
	Tundra
	Temperate grasslands
	Tropical grasslands
	Hot deserts.

The **most productive biomes** – which have the greatest biomass- grow in climates that are **hot and wet**.

Biome's climate and plants

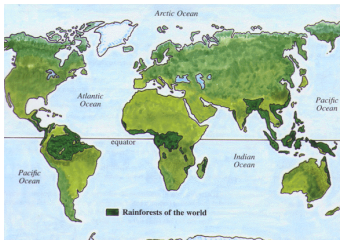
Biome	Location	Temperature	Rainfall	Flora	Fauna
Tropical rainforest	Centred along the Equator.	Hot all year (25-30°C)	Very high (over 200mm/year)	Tall trees forming a canopy; wide variety of species.	Greatest range of different animal species. Most live in canopy layer
Tropical grasslands	Between latitudes 5°- 30° north & south of Equator.	Warm all year (20-30°C)	Wet + dry season (500-1500mm/year)	Grasslands with widely spaced trees.	Large hoofed herbivores and carnivores dominate.
Hot desert	Found along the tropics of Cancer and Capricorn.	Hot by day (over 30°C) Cold by night	Very low (below 300mm/year)	Lack of plants and few species; adapted to drought.	Many animals are small and nocturnal: except for the camel.
Temperate forest	Between latitudes 40°- 60° north of Equator.	Warm summers + mild winters (5-20°C)	Variable rainfall (500-1500m /year)	Mainly deciduous trees; a variety of species.	Animals adapt to colder and warmer climates. Some migrate.
Tundra	Far Latitudes of 65° north and south of Equator	Cold winter + cool summers (below 10°C)	Low rainfall (below 500mm/ year)	Small plants grow close to the ground and only in summer.	Low number of species. Most animals found along coast.

Tropical Rainforest Biome

Tropical rainforest covers about **6 %** of the Earth's land surface yet they are home to **over half of the world's plant and animals**.

Interdependence in the rainforest

A rainforest works through **interdependence**. This is where the plants and animals **depend on each other** for survival. If one component changes, there can be **serious knock-on effects** for the entire ecosystem.



Distribution of Tropical Rainforests

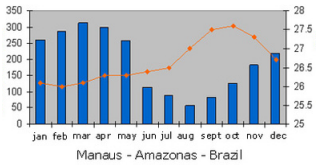
Tropical rainforests are **centred along the Equator** between the Tropic of Cancer and Capricorn. Rainforests can be found in South America, central Africa, South-East Asia & North West Australia **The Amazon** is the world's largest rainforest and takes up the majority of northern South America, encompassing countries such as Brazil and Peru.

Rainforest nutrient cycle

The **hot, damp conditions** on the forest floor allow for the **rapid decomposition** of dead plant material. This provides plentiful nutrients that are easily absorbed by plant roots. However, as these nutrients are in high demand from the many fast-growing plants, they do not remain in the soil for long and stay close to the surface. If vegetation is removed, the soils quickly become **infertile**.

Climate of Tropical Rainforests

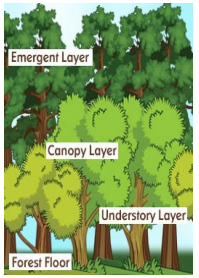
- Temperatures are consistently above **25°C**.
- Due to the **presence of clouds**, temperatures rarely rise above **32°C**.
- Most afternoons have heavy showers.
- At night with no clouds insulating, temperature drops.



CASE STUDY: UK Ecosystem: Epping Forest, Essex

This is a typical English lowland deciduous woodland. **70% of the area** is designated as a **Site of Special Scientific Interest (SSI)** for its biological interest, with **66 %** designated as a **Special Area of Conservation (SAC).**

Components & Interrelationships		Management
Spring	**Flowering plants** (producers) such as bluebells store nutrients to be eaten by consumers later.	- Epping has been managed for centuries. - Currently now used for **recreation** and **conservation**. - Visitors **pick fruit** and berries, helping to **disperse seeds**. - Trees cut down to encourage **new growth for timber.**
Summer	Broad tree leaves grow quickly to **maximise photosynthesis**.	
Autumn	Trees shed leaves to **conserve energy** due to sunlight hours decreasing.	
Winter	Bacteria **decompose** the leaf litter, releasing the nutrients into the soil.	



Layers of the Rainforest

Emergent	Highest layer with trees reaching **50 metres + e.g. Kapok trees**
Canopy	Most life is found here as It receives **70% of the sunlight** and **80% of the life.**
Under Canopy	Consists of trees that reach **20 metres high.**
Shrub Layer	Lowest layer with **small trees** that have adapted to living in the **shady conditions**

Tropical Rainforests: Case Study Malaysia

Malaysia is a LIC country in south-east Asia. 67% of Malaysia is a tropical rainforest with 18% of it not being interfered with. However , Malaysia has the fastest rate of deforestation compared to anywhere in the world

Adaptations to the rainforest

Buttress roots	Large external base ridges support the huge trees.
Drip Tips	Allows heavy rain to **run off leaves easily**.
Lianas & Vines	**Climb** trees to reach sunlight in the canopy.

Rainforest indigenous people (tribes)

Many tribes have developed sustainable ways of survival. The rainforest provides inhabitants with…

- **Food** through hunting and gathering.
- **Natural medicines** from forest plants.
- **Homes and boats** from forest wood.

Issues related to biodiversity

Why are there high rates of biodiversity?

- **Warm and wet climate** encourages a wide range of vegetation to grow.
- There is **rapid recycling of nutrients** to speed plant growth.
- Most of the rainforest is **untouched.**

Main issues with biodiversity decline

- **Keystone species** (a species that is important to other species) are extremely important in the rainforest ecosystem. Humans are threatening these vital components.
- **Decline in species** could cause tribes being unable to survive.
- **Plants** & **animals** may become **extinct.**
- Key plants used in medicine are **extinct.**

Impacts of deforestation

Economic development

+ Mining, farming and logging creates employment and tax income for government.
+ Products such as palm oil provide valuable income for countries.
- The loss of biodiversity will reduce tourism.

Soil erosion

- Once the land is **exposed by deforestation,** the soil is more **vulnerable to rain**.
- With **no roots to bind soil together**, soil can easily be **washed away.**

Climate Change

-When rainforests are cut down, the climate becomes **drier.**
-Trees are **carbon 'sinks'**. With greater deforestation comes more greenhouse emissions in the atmosphere.
-When trees are burnt, they **release more carbon in the atmosphere**. This will enhance the **greenhouse effect.**

What are the causes of deforestation?

Logging

- Most widely reported cause of destruction to biodiversity.
- Timber is harvested to create **commercial items** such as furniture and paper.
- **Violent confrontation** between indigenous tribes and logging companies.

Agriculture

- Large scale **'slash and burn'** of land for ranches and palm oil.
- Increases **carbon emissions**.
- **River siltation** and **soil erosion** increasing due to the large areas of **exposed land.**
- Increase in **palm oil** is making the **soil infertile**.

Mineral Extraction

- **Precious metals/ores** are found in the rainforest.
- Areas **mined** can experience **soil and water contamination**.
- **Indigenous people** are becoming **displaced** from their land due to roads being built to transport products.

Tourism

- **Mass tourism** is resulting in the building of hotels in extremely **vulnerable areas**.
- Lead to **negative relationship** between the government and indigenous tribes
- Tourism has **exposed animals** to human **diseases.**

Energy Development

- The **high rainfall** creates ideal conditions for **hydro-electric power (HEP).**
- The **Bakun Dam** in Malaysia is key for creating energy in this developing country, however, both people and environment have suffered.

Road Building

- **Roads** are needed to bring supplies and **provide access** to new mining areas, settlements and energy projects.
- In Malaysia, logging companies use an **extensive network of roads** for heavy machinery and to transport wood.

Sustainability for the Rainforest

Uncontrolled and unchecked exploitation can cause irreversible damage such as loss of biodiversity, soil erosion and climate change.

Possible strategies include:

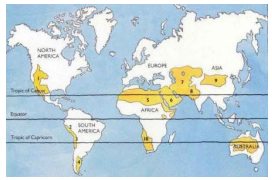
- **Agro-forestry** - Growing trees and crops at the same time. It prevents soil erosion and the crops benefit from the nutrients.
- **Selective logging** - Trees are only felled when they reach a particular height, or only certain trees are taken, not all.
- **Education** - Ensuring local people understand the consequences of deforestation
- **Afforestation** - If trees are cut down, they are replaced.
- **Forest reserves** - Areas protected from exploitation by laws
- **Ecotourism** - tourism that promotes the environment & conservation

Thar Desert – India/Pakistan or the Mojave in the SW of the USA

The Thar Desert is located on the border between India and Pakistan in Southern Asia whereas the Mojave is located in the South West of the USA

Distribution of the world's hot deserts

Most of the world's hot deserts are found in the **subtropics** between **20 degrees and 30 degrees north & south** of the Equator. The **Tropics of Cancer and Capricorn** run through most of the worlds major deserts.



Major characteristics of hot deserts

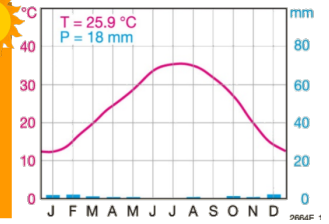
- **Aridity** – hot deserts are extremely dry, with annual rainfall below **250 mm**.
- **Heat** – hot deserts rise over **40 degrees.**
- **Landscapes** – Some places have dunes, but most are **rocky** with **thorny bushes.**

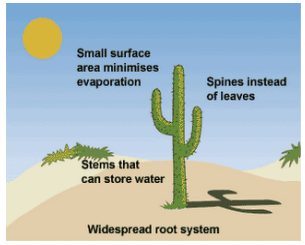
Hot Deserts inhabitants

- People often live in large **open tents** to **keep cool.**
- Food is often **cooked** slowly in the **warm sandy soil.**
- **Head scarves** are worn by men to provide **protection from the Sun.**

Climate of Hot Deserts

- **Very little rainfall** with less than **250 mm per year.**
- It might only **rain once every two to three years.**
- Temperatures are **hot in the day** (45 °C) but are **cold at night** due to little cloud cover (5 °C).
- In winter, deserts can sometimes receive occasional frost and snow.





Adaptations to the desert

Cactus	• **Large roots** to absorb water soon after rainfall. • **Needles** instead of leaves to reduce surface area and therefore **transpiration**.
Camels	• Hump for storing **fat (NOT water).** • **Wide feet** for walking on sand. • **Long eyelashes** to protect from sand.

Desert Interdependence

Different parts of the hot desert ecosystem **are closely linked together and depend on each other**, especially in a such a harsh environment.

Opportunities and challenges in the Hot desert

Opportunities

- There are valuable minerals for industries and construction. E.g. gypsum & phosphorus
- Energy resources such as coal and oil can be found in these deserts
- Great opportunities for renewable energy such as solar power.
- Thar and Mojave deserts has attracted tourists.

Challenges

- The extreme heat makes it difficult to work outside for very long.
- High evaporation rates from irrigation canals and farmland.
- Water supplies are limited, creating problems for the increasing number of people moving into the area.
- Access through the desert is tricky as roads are difficult to build and maintain, and tarmac can melt in the heat.

Causes of Desertification

Desertification means the turning of semi-arid areas (or drylands) into deserts.

Climate Change
Lower rainfall and rising temperatures have meant less water for plants.

Fuel Wood
People rely on wood for fuel. This removal of trees causes the soil to be exposed.

Overgrazing
Too many animals mean plants are eaten faster than they can grow back. Causing soil erosion.

Over-Cultivation
If crops are grown in the same areas too often, nutrients in the soil will be used up causing soil erosion.

Population Growth
A growing population puts pressure on the land leading to more deforestation, overgrazing and over-cultivation.

Strategies to reduce Desertification

- **Water management** - growing crops that don't need much water.
- **Tree Planting** - trees can act as windbreakers to protect the soil from wind and soil erosion.
- **Soil Management** - leaving areas of land to rest and recover lost nutrients.
- **Technology** – using less expensive, sustainable materials for people to maintain. i.e. sand fences, terraces to stabilise soil and solar cookers to reduce deforestation.

Health & Social Care	Barriers to communication in H&SC and their effects on service users

Barriers to communication are things that can break or interfere with the communication cycle. Here are some types of barrier that could affect people who use health and social care.

Lighting

- Someone who does not see well will be unable to read information in a badly lit room. They will not be able to read body language, so may not see a facial expression, a hand movement or body posture, which give clues to what the person is saying.
- Someone who is hearing impaired will have difficulty understanding if they cannot see to lip read e.g. if the person speaking is standing with the sunlight behind them.

Noise

- Background noise can prevent people from hearing and can interrupt concentration especially for someone who cannot hear well, or does not speak the language fluently. If you are in a community centre where a lot of things are happening, as 2 or 3 different groups may be taking place at the same time (e.g. playgroup, dance class, knitting group) one activity can be a distraction to the other.
- If the hall is big, has a high ceiling and no carpets, this can cause an echo, as hard surfaces tend to bounce the noise around the room. This would be a problem for people with a hearing impairment as they would not be able to hear every word, it may sound more like a buzzing noise.

Sensory Deprivation

- This can prevent the exchange of information, or information may be confused or inaccurate. People may not be able to lip read accurately if the person speaking is standing behind them. They may not be able or read information if the print on a leaflet is too small, e.g. exit or toilet signs may not be seen.
- People with learning disabilities e.g. Down's syndrome, Cerebral Palsy and Autism may not be able to interpret the non-verbal signs of others. They may react by being aggressive or withdrawn.

Physical Illness

- A disability or illness such as Arthritis which causes stiffening of the joints is a very painful condition that can make movement difficult. Once a person is sitting down, they may not want to move to talk to friends and will find it difficult to turn around to see people.
- Someone who is ill may get tired easily and this will make them less receptive to messages.

Language barriers

- People for whom English is an additional language (EAL) may not be able to read signs and information in the community centre. They may not understand the body language of people from a different culture and their sense of humour can be different. They have to concentrate carefully on what people are saying and this can be very frustrating if they cannot make themselves understood.

- Jargon, slang and acronyms can cause problems for people who do not understand and this can cause confusion e.g. A carer may say that Mr Norton who has had a stroke is suffering from Hemiplegia, this may scare him, when in fact it means that he has a weakness on one side of his body making it difficult for him to balance.

Overcoming barriers

- Using the method of communication or preferred language that the service user prefers
- Adapt the environment to improve communication e.g. move furniture, improve lighting, put blinds up at the windows, look at the timing of events so that things do not clash, restrict the numbers of people taking part in activities, change the spaces where activities take place. Add carpets to improve the sound quality.
- Produce literature in fonts that everyone can see, have leaflets in different languages.
- Use positive facial expressions and appropriate gestures to make communication more effective.
- Make sure that service users have equipment that works e.g. hearing aids.
- Make sure that signs (e.g. exit, toilet, kitchen) are large enough to be seen and in different languages.
- Staff training in the use of verbal and nonverbal communication for certain service users e.g. Makaton signs for when the minibus is leaving or when asking what people want to drink etc.

GCSE History

Development of Civil Rights Movement

Summary 1954-60

By the early 1950s, slavery had been abolished and black Americans were equal to white Americans by law. However, black Americans were not actually treated as equal, as all over the USA black Americans lived in the worst areas and had access to the worst facilities. This was at its worst in the South, as most Southern states had a system of segregation which kept black and white communities separate. For example, local laws meant black Americans could not use the same toilets or restaurants as white people. Black Americans had the right to vote, but were stopped by a system that deliberately discriminated against them, by threats and by violence. Some black Americans in the South tried to improve their lives by joining the civil rights movement to campaign for equality. During the early stages of the civil rights movement, progress was made in education and the Montgomery Bus Boycott, with the culmination of the Civil Rights Act in 1957. However, with this progress being made, Southern opposition to civil rights grew as attempts were made to hinder the success of the movement.

Progress in Education	The Montgomery Bus Boycott
One of the biggest segregation issues in the South was education. The Brown V. Topeka case was significant in ruling against segregation in schools. However, with no timescale placed on desegregation, this was still a problem in Southern schools as seen in the case of the Little Rock Nine. As threats of violence increased, civil rights groups became aware of the power of the media to help their cause.	Rosa Parks was arrested after refusing to give up her bus seat for a white man. This sparked the bus boycott which lasted 381 and almost all black people in Montgomery took part. As head of the MIA, Martin Luther King became the voice of the campaign. He understood the importance of publicity, which was crucial for success. The boycott ended in 1956 with the Supreme Court decision to segregate public transport.

Enquiry Question: ***What kind of change could African Americans see in the period 1954-1960?***

Key Figures

Emmet Till	A 14-year-old from Chicago who was murdered in 1955 by two white men whilst visiting relatives in Mississippi. His mother insisted on an open-casket at his funeral which gained much publicity for
Linda Brown	In 1951, the Browns and 12 other families went to court to fight for their black children to be able to attend the nearest school which was 'white' in the Brown V. Topeka case.
Rosa Parks	In 1955, Parks was arrested after refusing to give up her seat on a bus for a white person. This sparked the Montgomery Bus Boycott.
Martin Luther King	Civil Rights leader who came to prominence during the Montgom-

Challenge

Why did Emmett Till's mother decide to have an open viewing of his body at the funeral home?

Why did Rosa Parks become the figurehead of the Montgomery Bus Boycott?

What impact did the Little Rock 9 have on attitudes towards integration in the South?

TIMELINE OF THE DEVELOPMENT OF CIVIL RIGHTS

1954 Brown v. Topeka case ruled AGAINST segregated education

1955 Murder of Emmett Till, a 14 year old African American, by the KKK

1955 Start of Montgomery Bus Boycott—December (Rosa Parks)

1956 Montgomery Bus Boycott ends. Segregation on public transport ruled unlawful

1956 The Southern Manifesto signed by Southern Politicians to encourage segregation

1957 President Eisenhower used National Guard to protect 9 black students at Little Rock High School

1957 Civil Rights Act: all people had right to vote and Federal Government to look for racial discrimination

1960 Civil Rights Act: aimed to protect voting rights of black citizens

GCSE History

Development of Civil Rights Movement

Key Concepts	
Federal	The central US government responsible for laws that govern the whole country.
State	All US states have their own governments and laws.
Supreme Court	The top court for the whole of the USA. It has the power to overrule state laws if necessary.
Literacy Test	Baffling tests designed to prevent black Americans from voting.
Senators	US politicians, members of the Senate.
Lynching	The murder of African Americans.

Other Resources

https://www.bbc.co.uk/bitesize/guides/zcpcwmn/revision/1

https://www.youtube.com/watch?v=S64zRnnn4Po

https://www.youtube.com/watch?v=JeE2WqlHFTc

SCAN ME

Key Vocabulary	
Segregation	Separating groups due to their race e.g. separate housing, education, health care, or public transport for black and white people.
Discrimination	Treating people unfairly because of their race or religion.
Jim Crow Laws	'Black code' laws enforcing segregation, named after 'Jim Crow' (a lazy, stupid black character played by a white comedian).
Integration	Black and white people sharing facilities e.g. the same schools.
NAACP	(National Association for the Advancement of Coloured People). A pressure group founded in 1909 that focused on eliminating racial discrimination and on fighting for civil rights in the courts.
CORE	(Congress of Racial Equality). Established in 1942, this group used non-violent direct action protests e.g. the first group to use the tactic of sit-ins.
Non-violent direct action	Forms of protest that don't include violence e.g. boycotts, sit-ins.
Plessy V. Ferguson	'Separate but equal' - A law of 1896 said segregation was allowed if conditions for blacks and whites were equal
Desegregation	Removal of the policy of segregation
WPC	(Women's Political Council) set up in Montgomery in 1946 to fight discrimination.
MIA	(Montgomery Improvement Association) led by Martin Luther King, set up to improve the lives of black people in Montgomery and to continue the bus boycott.
Boycott	Refusal to use a service if you believe it is doing something wrong (e.g. discriminating against black people on buses).
Dixiecrats	Democratic Party senators from Southern States who opposed black voting rights.
Ku Klux Klan (KKK)	(Ku Klux Klan) A secret society of white people in the South who believed in white supremacy and used violence against black people (and other minority groups).
WCC	(White Citizens' Council) petitioned and campaigned against desegregation .
Southern Manifesto	A document written by Congress in 1956 opposing racial integration of public places.
SCLC	(Southern Christian Leadership Council) set up church-based protests, Martin Luther King was one of its leaders.

Media studies knowledge organiser: Representation.

Key terminology

Use this to self-quiz

1. **Representation:** the way in which people, issues and events are depicted in media products.
2. **Mediation:** how media producers represent (rather than just present) the world to audiences.
3. **Reality:** 'real life', actual events, facts and truth - how aspects of reality and versions of reality are constructed.
4. **Stereotype:** an exaggerated, oversimplified representation, reducing a social group to a set of common characteristics e.g. grumpy older people or flat cap wearing northerners.
5. **Feminist:** supporting equal rights for women (society was traditionally male-dominated but there has been a move towards more equality, especially from the 1960s onwards).

KEY CONTENT:

How representations reflect the contexts in which they were produced, e.g:

Social: reflecting society at the time/place of production e.g. in terms of issues such as gender or racial equality, or economic prosperity.

Historical: the time/ period in which a product is created, e.g. the 1950s (*Quality Street*), the 1970s (*The Man With the Golden Gun*).

Cultural influences on a product, e.g. current trends or direct references (such as representations of *Countdown* in *The IT Crowd*).

Apply it... analyse how the representations in the set products reflect the time and place in which they were made.

e.g. *the representation of the active female on the This Girl Can poster differs from the passive females in the historical Quality Street advert, as women now have more power and equality in society.*

Key content:

Read and summarise:

The choices media producers make about how to represent:

Events: e.g. how the set newspaper front pages combine images and text to convey information about the issues and events in the main splash (story).

Social groups: categorised by age, gender and ethnicity. **Ideas:** e.g. how the set magazine front covers communicate ideas about gender/ identity in the use of media language.

The ways aspects of reality may be represented differently depending on the purposes of the producers: e.g. newspapers are informative and need to include factual detail, a sitcom might exaggerate/ subvert reality to entertain.

Apply it... identify examples of stereotypes in the set products and think about how and why they are used. Now, try to find examples of representations that challenge stereotypes and consider why the producers might have made this decision.

The John of Gaunt School
A Community Academy

Subject	Unit title
GCSE Music	Area of Study 1: Musical Forms and Devices

The Development of Music

The Baroque Era: 1600-1750

Main composers: Bach, Handel, Vivaldi, Purcell

Main features of the music:

- Use of ornaments and terraced dynamics.
- Energetic rhythmic movement.
- Major/Minor key system (diatonic).
- Orchestras are mainly strings.
- Use of harpsichord, recorders, flute and horns.
- Use of basso continuo (see AOS 2).

The Classical Era: 1750-1810

Main composers: Mozart, Beethoven, Haydn

Main features of the music:

- Four sections to the orchestra.
- Melodies less complex than Baroque.
- More variety and contrast in the music.
- Frequent changes in mood, timbre and dynamics.
- Harpsichord replaced by piano.

The Romantic Era: 1810-1910

Main composers: Chopin, Liszt, Wagner, Tchaikovsky

Main features of the music:

- Thematic ideas and use of the leitmotif (see AOS 3).
- Increased variation in dynamics.
- Use of chromatic notes and extended chords.
- Further expansion of the orchestra.
- Development of the brass section.
- Descriptive music and links to other art forms

Musical Form and Structure

In GCSE music, you must be able to identify the following forms:

Binary from – A B

Ternary form – A B A

Rondo form – A B A C A

Minuet and Trio – Minuet Trio Minuet

Variation from – Theme Variation 1, 2, 3 etc

Strophic form – A A A A

Other key terms

- **Monophonic** – One unaccompanied part or voice.
- **Homophonic** – Many parts that move together. Melody and accompaniment is a type of homophonic texture.
- **Polyphonic** – 2 or more different parts that are of equal importance.
- **Unison** – All together. Could be considered monophonic if played at the same pitch.
- **Parallel motion** – Parts move in the same direction.
- **Contrary motion** – Parts move in different directions.
- **Interval** – The gap/space between 2 different notes.

Devices

- **Repetition** – The exact repeat of a musical idea.
- **Contrast** – A change in the musical content.
- **Anacrusis** – A lead in. A note or beat before the first full bar of a piece.
- **Imitation** – When a musical idea is copied in another part.
- **Sequence** – The repetition of a motif (short melody) in the same part but at a different pitch.
- **Ostinato** – A musical pattern repeated many times. This is known as a riff in modern music.
- **Syncopation** – Off beat or where the weaker beats of a rhythm are emphasised.
- **Dotted rhythms** – A dot placed after a note. This increases the note by half its own value, giving a jagged effect to the rhythm.
- **Drone** – A repeated or sustained note or notes held throughout a passage of music. The drone will be diatonic and use either the Tonic or the Tonic and Dominant notes.
- **Pedal** – A held or repeated note, against which changing harmonies are heard.
- **Canon** – A device in which a melody is repeated exactly in an other part while the initial melody continues and develops.
- **Conjunct movement** – When the melody mainly moves in step.
- **Disjunct movement** – When the melody ‘leaps’ from one note to another.
- **Broken chord/Arpeggio** – A chord played as separate notes.
- **Alberti bass** – A type of broken chord accompaniment.
- **Regular Phrasing** – The balanced parts of melody.
- **Motif** – A short melodic or rhythmic idea that has a distinctive character.
- **Chord progressions** – A sequence or series or chords related to each other and in a particular key.
- **Modulation** – The process of changing key.

Specialised cells

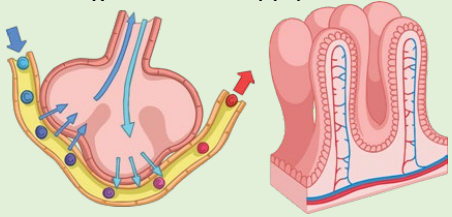
Specialised Cell	Function	Adaptation
sperm	To get the male DNA to the female DNA.	Streamlined head, long tail, lots of mitochondria to provide energy.
nerve	To send electrical impulses around the body.	Long to cover more distance. Has branched connections to connect in a network.
muscle	To contract quickly.	Long and contain lots of mitochondria for energy.
root hair	To absorb water from the soil.	A large surface area to absorb more water.
phloem	Transports substances around the plant.	Pores to allow cell sap to flow. Cells are long and joined end-to-end.
xylem	Transports water through the plant.	Hollow in the centre. Tubes are joined end-to-end.

Exchange – Humans

Multicellular organisms have a large surface area to volume ratio so that all the substances can be exchanged.

Gas exchange: Lungs

The alveoli are where gas exchange takes place. They have a large surface area, moist lining, thin walls and a good blood supply.

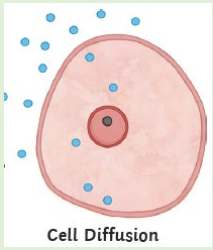


Villi: Small Intestine

Millions of villi line the small intestine increasing the surface area to absorb more digested food. They are a single layer of cells with a good blood supply.

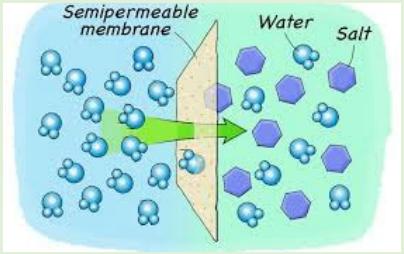
Transport

Diffusion is the spreading out of particles from an area of higher concentration to an area of lower concentration.

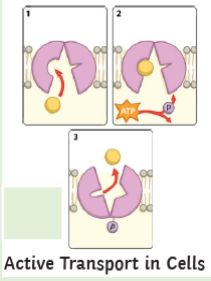


Cell membranes are semi-permeable, only small molecules can get through.

Osmosis is the movement of water molecules across a partially permeable membrane from a region of higher concentration to a region of lower concentration.



Active transport is the movement of substances against the concentration gradient. This process requires energy from respiration.



Exchange in Plants

The surface of the leaf is flattened to increase the surface area for more gas exchange by diffusion.

Oxygen and water vapour diffuse out of the stomata. Guard cells open and close the stomata, controlling water loss.

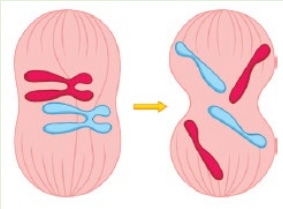
Word	Definition
Osmosis	is the spontaneous net movement or diffusion of water molecules through a selectively permeable membrane from a region of high water potential to a region of low water potential
Active Transport	active transport is the movement of molecules across a cell membrane from a region of lower concentration to a region of higher concentration—against the concentration gradient.
Concentration Gradient	The difference in the concentration of a substance between two areas is called the concentration gradient . The bigger the difference, the steeper the concentration gradient and the faster the molecules of a substance will diffuse

Chromosomes and Mitosis

In the nucleus of a human cell there are 23 pairs of chromosomes. Chromosomes contain a double helix of DNA. Chromosomes have a large number of genes.

The cell cycle makes new cells.

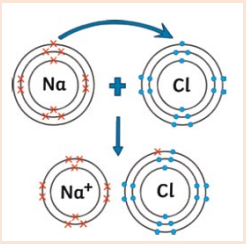
Mitosis: DNA has to be copied/replicated before the cell carries out mitosis.

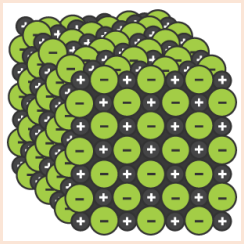


Combined science HT – biology – cell biology

Ionic bonding:

Ionic bonding occurs between a metal and a non-metal. Metals lose electrons to become positively charged. Opposite charges are attracted by electrostatic forces – an ionic bond.





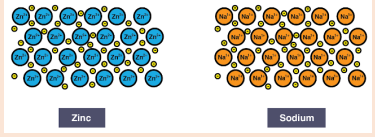
Ionic compounds form structures called giant lattices. There are strong electrostatic forces of attraction that act in all directions and act between the oppositely charged ions that make up the giant ionic lattice.

Properties of ionic compounds:

•High melting point – lots of energy needed to overcome the electrostatic forces of attraction
•High boiling point
•Cannot conduct electricity in a solid as the ions are not free to move
•Ionic compounds, when molten on in solution, can conduct electricity as the ions are free to move and carry the electrical current.

Metallic bonding:

Metallic bonding occurs between metals only. Positive metal ions are surrounded by a sea of delocalised electrons. The ions are tightly packed and arranged in rows. There are strong electrostatic forces of attraction between the positive metal ions and negatively charged electrons.

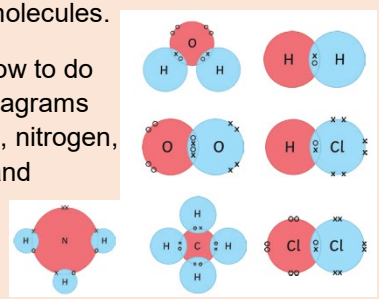


Covalent bonding:

Covalent bonding is the sharing of a pair of electrons between atoms to gain a full outer shell. This occurs between non-metals only.

Dot and cross diagrams are useful to show the bonding in simple molecules.

You should know how to do the dot and cross diagrams for chlorine, oxygen, nitrogen, hydrogen chloride and methane.



Properties of covalent molecules:

Simple covalent structures have low melting and boiling points because of the weak intermolecular forces that hold the molecules together. They do not conduct electricity as they do not have any free delocalised electrons.

Alloys:

Pure metals are too soft for many uses and are often mixed with other metals to make alloys. The mixture of the metals introduces different sized metal atoms. This distorts the layers and prevents them from sliding over one another. This makes it harder for alloys to be bent and shaped like pure metals.

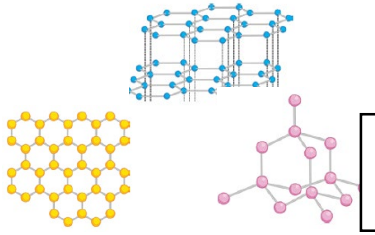
Diamond:

• Each carbon atom is bonded to four other carbon atoms, making diamond very strong.
• Diamond has a high melting and boiling point. Large amounts of energy are needed to break the strong covalent bonds between each carbon atom.
• Diamond does not conduct electricity because it has no free electrons

Word	Definition
Bond	A chemical bond is a lasting attraction between atoms, ions or molecules that enables the formation of chemical compounds.
Metal	consist of giant structures of atoms arranged in a regular pattern. The electrons from the outer shells of the metal atoms are delocalised , and are free to move through the whole structure.
Alloy	a mixture of two or more elements , where at least one element is a metal
Delocalised electrons	The electrons from the outer shells of the metal atoms are delocalised , and are free to move through the whole structure

Graphite

Made up of layers of carbon arranged in hexagons. Each carbon is bonded to three other carbons and has one free delocalised electron that is able to move between the layers. This allows it to conduct electricity. The layers are held together by weak intermolecular forces. The layers can slide over each other easily as there ar covalent bonds between the layer

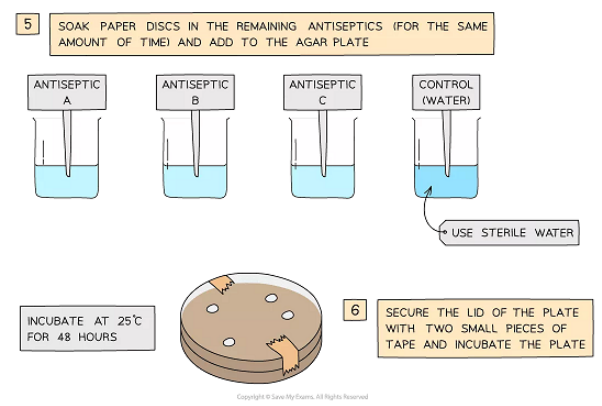


Combined science HT – chemistry – bonding

Triple Science extra content

Biology

Investigating the Effect of Antibiotics on Bacterial Growth: Place paper disks that have been soaked with different antibiotics on an agar plate that has bacteria on it. The antibiotics should diffuse on to the agar. The most effective antibiotic at killing the bacteria will have the largest inhibition zone. Be sure to use a control that has sterile water on the disk (to compare to). Leave in an incubator for 48 hours at 25°C.



Stem Cells in Plants

In plants, stem cells are found in the meristem. These stem cells are able to produce clones of the plant. They can be used to grow crops with specific features for a farmer, e.g. disease resistant.

Chemistry

Nanoparticles:

Nanoparticles have different properties to the same materials in bulk as they have a high surface area to volume ratio. Smaller quantities are needed to be effective.

Nanoparticles: 1-100nm

Small particles: 100-2500nm

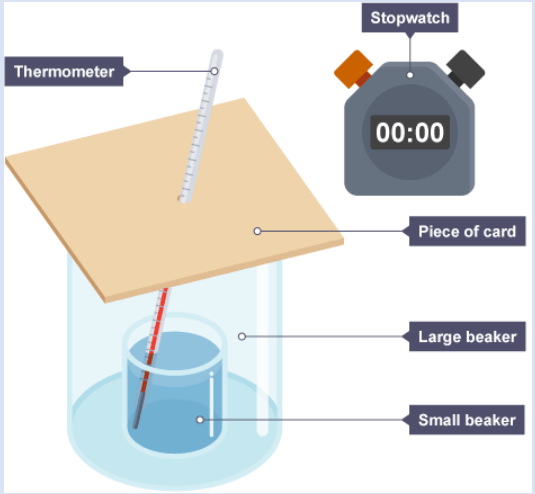
Coarse particles: $1x10^{-5}m$ – $2.5 \times 10^{-6}m$

Nanoparticles are used in medicine, in electronics, in cosmetics and sun creams, as deodorants, and as catalysts.

KS4 Triple science

Physics

Investigating the effectiveness of different materials as thermal insulators: Place a small beaker into a larger beaker then fill the small beaker with hot water from a kettle. Put a piece of cardboard over the beakers as a lid. Place a thermometer into the smaller beaker and record the temperature. Start the stopwatch and record the temperature every 2 minutes for 20 minutes. Repeat the experiment, packing different materials between the large beaker and the small beaker to insulate.



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LINK FOR THE TEMPLATE (CANVA)

FOUNDATION

MODULE 2 - F

DESCRIBE LA FOTO

En la foto	In the photo
a la izquierda /derecha	on the left / on the right
en el centro	in the center
al fondo	in the background
hay	**there is/are**
un barco / un bosque	a boat / a forest
un río / una torre*	a river / a tower
una playa / agua	a beach / water
vistas bonitas	beautiful views
muchos animales	lots of animals
muchos edificios	lots of buildings
muchas montañas	lots of mountains
personas	people
Está(n) en	**It is/They are in/at**
el campo / la montaña	the countryside /the mountains
la costa	the coast
un pueblo / una ciudad	a town / a city
Es	**It is**
bonito/a / histórico/a	pretty / historical
tranquilo/a	calm/quiet
(No) Hace	**It is (not)**
sol	sunny
calor	hot
frío	cold
viento	windy
buen/mal tiempo	good/bad weather
(No) Llueve	It is (not) raining
Nieva	It is snowing

¿A DÓNDE TE GUSTARÍA IR?

¿Adónde te gustaría ir?	***Where would you like to go?***
Me gustaría ir a (Sevilla)	*I would like to visit (Seville)*
porque	*because*
me gusta la naturaleza	*I like nature*
me gustan los edificios antiguos	*I like (plural) old buildings*
También me gusta	*I also like*
disfrutar de la naturaleza	*to enjoy nature*
montar a caballo	*to go horse riding*
ver un espectáculo de baile	*to see a dance show*
hacer ciclismo / esquí / natación	*to go cycling / skiing /swimming*
tomar el so / descansar	*to sunbathe / to rest*
¿Adónde no te gustaría ir?	***Where wouldn't you like to go?***
No me gustaría ir a	*I wouldn't like to go to*
porque no me gusta(n)	*because I don't like*
¿Adónde te gustaría ir de vacaciones?	***Where would you like to go on holiday?***
Me gustaría ir de vacaciones	*I would like to go on holiday*
a África / a Asia / a Europa	*to Africa / to Asia / to Europe*
a Latinoamérica	*to Latin America*
al campo / a la ciudad	*to the countryside / to the city*
a la costa / a la montaña	*to the coast /to the mountains*
¿Qué te gustaría visitar?	***What would you like to visit?***
Creo que me gustaría visitar	*I think I would like to visit*
¿Cuándo te gustaría ir?	***When would you like to go?***
Me gustaría ir en	*I would like to go in*
primavera /verano	*spring / summer*
otoño / invierno	*autumn / winter*

EN RUTA

¿Qué te gustaría hacer?	***What would you like to do?***
Me gustaría / Quisiera / Se puede	*I would like/I would like to/You can*
disfrutar del buen clima	*enjoy the good climate*
disfrutar de la vida cultural	*enjoy the cultural life*
hacer turismo	*go sightseeing*
ir de compras / tomar el sol	*go shopping / sunbathe*
pasear por las calles	*walk in the streets*
probar la comida típica	*try local food*
viajar en un coche clásico	*travel in a classic car*
visitar la capital	*visit the capital*
¿Cómo te gustaría viajar?	***How would you like to travel?***
Me gustaría / Quisiera	*I would like / I would like to*
viajar en autobús / avión	*travel by bus / plane*
barco / coch / metro / tren	*boat / car / underground / train*
ir a pie	*go on foot*
porque es	***because it is***
más que / menos que / tan como	*more than / less than / as as*
caro / barato / rápido / lento	*expensive / cheap / fast / slow*
fácil / difícil /cómodo / seguro	*easy / difficult /comfortable / safe*
mejor que / peor que	*better than / worse than*
porque vivo	*because I live*
cerca del aeropuerto	*close to the airport*
lejos de la estación	*far from the station*
porque	***because***
hay mucha gente	*there are a lot of people*
me gusta hacer ejercicio	*I like to do exercise*
se puede dormir durante el...	*you can sleep during the...*
vuelo /el viaje	*flight / journey*

MI AVENTURA POR LATINOAMÉRICA

¿Dónde te quedaste?	**Where did you stay?**
Me quedé /Nos quedamos en	I stayed / We stayed in
El hotel / camping	The hotel / campsite
apartamento era	apartment was
La casa era	The house was
bastante / muy / demasiado	quite / very / too
agradable / antiguo/a	pleasant / old
barato/a / caro/a	cheap / expensive
grande / moderno/a	big / modern
pequeño/a / viejo/a	small / old
Estaba	It was
en el centro	in the center
cerca de / lejos de	near to / far from
limpio / sucio	clean / dirty
La cama /ducha	The bed / shower
ventana estaba rota	window was broken
No tenía	It didn't have
También había	There was also
un baño /un jardín	a bathroom / a garden
restaurante	restaurant
Había vistas maravillosas	There were marvelous views
Sin embargo no había	However, there wasn't
una cocin / piscina	a kitchen / swimming pool
Quisiera una habitación	I would like a
individual / doble	single room / double room
¿Cuánto es?	**How much is it?**
Son cien euros por noche	It is a hundred euros per night
El desayuno no está incluido	Breakfast is not included
¿A qué hora es el desayuno?	**What time is breakfast?**
¿Hay un gimnasio en el hotel?	**Is there a gym in the hotel?**

VIAJES

LA CULTURA EN LA CALLE

¿Qué fiesta recomiendas? — **What festival do you recommend?**

Si te gusta / te interesa	If you like. / are interested in
hay que	you must
ver las Fallas	see the Fallas
ir a la Tomatina	go to the Tomatina
Recomiendo	I recommend
porque es una fiesta	because it is a festival
antigua / bonita	old / pretty
divertida / emocionante	fun / exciting
peligrosa / popular	dangerous / popular

¿Cuándo es? — **When is it?**

Es en marzo	It is in March
abril /mayo	April / May
agosto	August
Hay	**There is**
un espectáculo	a special show
un evento especial	a special event
una batalla divertida	a fun battle
mucha gente	lots of people
fuegos artificiales	fireworks

¿Qué van a tomar? — **What are you going to have?**

Quisiera	I would like
la carta	the menu
la cuenta	the bill
una mesa para	a table for
personas	people
Voy / Vamos a tomar	I / We are going to have
arroz	rice
fruta	fruit
helado	ice cream
una hamburguesa	a hamburger
un bocadillo de *jamón	a ham sandwich
queso / paella	cheese / paella
pescado frito	fried fish
tortilla española	Spanish omelette
una botella de agua	a bottle of water
limonada / postre	lemonade / dessert
un té / un café	a tea / a coffee

MIS ÚLTIMAS VACACIONES

¿Qué tal tus últimas vacaciones? — ***How was your last holiday?***

El verano pasado	*Last summer*
En julio	*In July*
Hace dos meses	*Two months ago*
fui / fuimos a	*I went / we went to*
Pasé la Nochevieja allí con	*I spent NYE there with*
Viajé en tren / en coche	*I travelled by train / by car*

¿Qué hiciste? — ***What did you do?***

El primer día / El último día	*The first day / The last day*
Por la mañana	*In the morning*
Por la tarde / Por la noche	*In the afternoon / evening*
tomé el sol	*I sunbathed*
hice windsurf	*I did windsurfing*
comí algo malo	*I ate something bad*
tuve un accidente	*I had an accident*

¿Te gustó? — ***Did you like it?***

Sí, me encantó	*Yes, I loved it*
Fue	*It was*
genial / guay / increíble	*brilliant / cool / incredible*
terrible	*terrible*
Sí, pero desafortunadamente	*Yes, but unfortunately*
perdí	*I lost*
mi bolsa / mi equipaje	*my bag / my luggage*
mi tarjeta de crédito	*my credit card*
mis llaves	*my keys*
rompí mi cámara	*I broke my camera*
dejé mi pasaporte	*I left my passport*
en el aeropuerto	*in the airport*
en el autobús	*on the bus*
en la playa	*on the beach*
No, no me gustó nada	*No, I didn't like it at all*

¿Qué tiempo hizo? — ***What was the weather like?***

Todos los días	*Every day*
hizo buen tiempo	*it was good weather*
hizo mal tiempo	*it was bad weather*
hizo calor / frío / sol / viento	*it was hot / cold / sunny / windy*
llovió / nevó	*it rained / it snowed*

¿DÓNDE TE QUEDASTE?

¿Dónde te quedaste? — ***Where did you stay?***

Me quedé / Nos quedamos en	*I stayed / We stayed in*
El hotel / camping	*The hotel / campsite*
***apartamento era**	*apartment was*
La casa era	*The house was*
bastante / muy / demasiado	*quite / very / too*
agradable / antiguo/a	*pleasant/ old*
barato/a / caro/a	*cheap / expensive*
grande / moderno/a	*big / modern*
pequeño/a / viejo/a	*small / old*
Estaba	*It was*
en el centro	*in the center*
cerca de / lejos de	*near to / far from*
limpio/a / sucio/a	*clean / dirty*
La cama/*ducha/ventana	*The bed/shower/window*
estaba rota	*was broken*
No tenía	*It didn't have*
También había	*There was also*
un baño	*a bathroom*
un jardín / restaurante	*a garden / restaurant*
Había vistas maravillosas	*There were marvelous views*
(*Sin embargo) no había	*(However), there wasn't*
una cocina / piscina	*a kitchen /swimming pool*
Quisiera una habitación	*I would like a*
individual / doble	*single room / double room*

¿Cuánto es? — ***How much is it?***

Son cien euros por noche	*It is a hundred euros per night*
El desayuno no está incluido	*Breakfast is not included*
¿A qué hora es el desayuno?	*What time is breakfast?*
Entre las siete y las diez y media	*Between seven and half past ten*

¿Hay un gimnasio en el hotel? — ***Is there a gym in the hotel?***

RED BOLD = this word will appear in higher exams only
* = this word won't appear in reading or listening exams, but you may use it in your own sentences.

HIGHER

MODULE 2 - H

DESCRIBE LA FOTO

En la foto	In the photo
a la izquierda /derecha	on the left / on the right
en el centro	in the center
al fondo	in the background
hay	**there is/are**
un barco / un bosque	a boat / a forest
un río / una torre*	a river / a tower
una playa / agua	a beach / water
vistas bonitas	beautiful views
muchos animales	lots of animals
muchos edificios	lots of buildings
muchas montañas	lots of mountains
personas	people
Está(n) en	**It is/They are in/at**
el campo / la montaña	the countryside /the mountains
la costa	the coast
un pueblo / una ciudad	a town / a city
Es	**It is**
bonito/a / histórico/a	pretty / historical
tranquilo/a	calm/quiet
(No) Hace	**It is (not)**
sol	sunny
calor	hot
frío	cold
viento	windy
buen/mal tiempo	good/bad weather
(No) Llueve	It is (not) raining
Nieva	It is snowing

¿A DÓNDE TE GUSTARÍA IR?

¿Adónde te gustaría ir?	***Where would you like to go?***
Me gustaría ir a (Sevilla)	*I would like to visit (Seville)*
porque	*because*
me gusta la naturaleza	*I like nature*
me gustan los edificios antiguos	*I like (plural) old buildings*
También me gusta	*I also like*
disfrutar de la naturaleza	*to enjoy nature*
montar a caballo	*to go horse riding*
ver un espectáculo de baile	*to see a dance show*
hacer ciclismo / esquí / natación	*to go cycling / skiing /swimming*
tomar el so / descansar	*to sunbathe / to rest*
¿Adónde no te gustaría ir?	***Where wouldn't you like to go?***
No me gustaría ir a	*I wouldn't like to go to*
porque no me gusta(n)	*because I don't like*
¿Adónde te gustaría ir de vacaciones?	***Where would you like to go on holiday?***
Me gustaría ir de vacaciones	*I would like to go on holiday*
a África / a Asia / a Europa	*to Africa / to Asia / to Europe*
a Latinoamérica	*to Latin America*
al campo / a la ciudad	*to the countryside / to the city*
a la costa / a la montaña	*to the coast /to the mountains*
¿Qué te gustaría visitar?	***What would you like to visit?***
Creo que me gustaría visitar	*I think I would like to visit*
¿Cuándo te gustaría ir?	***When would you like to go?***
Me gustaría ir en	*I would like to go in*
primavera /verano	*spring / summer*
otoño / invierno	*autumn / winter*

EN RUTA

¿Qué te gustaría hacer?	***What would you like to do?***
Me gustaría / Quisiera / Se puede	*I would like/I would like to/You can*
disfrutar del buen clima	*enjoy the good climate*
disfrutar de la vida cultural	*enjoy the cultural life*
hacer turismo	*go sightseeing*
ir de compras / tomar el sol	*go shopping / sunbathe*
pasear por las calles	*walk in the streets*
probar la comida típica	*try local food*
viajar en un coche clásico	*travel in a classic car*
visitar la capital	*visit the capital*
¿Cómo te gustaría viajar?	***How would you like to travel?***
Me gustaría / Quisiera	*I would like / I would like to*
viajar en autobús / avión	*travel by bus / plane*
barco / coch / metro / tren	*boat / car / underground / train*
ir a pie	*go on foot*
porque es	***because it is***
más que / menos que / tan como	*more than / less than / as as*
caro / barato / rápido / lento	*expensive / cheap / fast / slow*
fácil / difícil /cómodo / seguro	*easy / difficult /comfortable / safe*
mejor que / peor que	*better than / worse than*
porque vivo	*because I live*
cerca del aeropuerto	*close to the airport*
lejos de la estación	*far from the station*
porque	***because***
hay mucha gente	*there are a lot of people*
me gusta hacer ejercicio	*I like to do exercise*
se puede dormir durante el...	*you can sleep during the...*
vuelo /el viaje	*flight / journey*

MI AVENTURA POR LATINOAMÉRICA

¿Dónde te quedaste?	**Where did you stay?**
Me quedé /Nos quedamos en	I stayed / We stayed in
El hotel / camping	The hotel / campsite
apartamento era	apartment was
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bastante / muy / demasiado	quite / very / too
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Estaba	It was
en el centro	in the center
cerca de / lejos de	near to / far from
limpio / sucio	clean / dirty
La cama /ducha	The bed / shower
ventana estaba rota	window was broken
No tenía	It didn't have
También había	There was also
un baño /un jardín	a bathroom / a garden
restaurante	restaurant
Había vistas maravillosas	There were marvelous views
Sin embargo no había	However, there wasn't
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Quisiera una habitación	I would like a
individual / doble	single room / double room
¿Cuánto es?	**How much is it?**
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El desayuno no está incluido	Breakfast is not included
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¿Hay un gimnasio en el hotel?	**Is there a gym in the hotel?**

VIAJES

LA CULTURA EN LA CALLE

¿Qué fiesta recomiendas? — **What festival do you recommend?**

Si te gusta / te interesa	If you like. / are interested in
hay que	you must
ver las Fallas	see the Fallas
ir a la Tomatina	go to the Tomatina
Recomiendo	I recommend
porque es una fiesta	because it is a festival
antigua / bonita	old / pretty
divertida / emocionante	fun / exciting
peligrosa / popular	dangerous / popular

¿Cuándo es? — **When is it?**

Es en marzo	It is in March
abril /mayo	April / May
agosto	August
Hay	**There is**
un espectáculo	a special show
un evento especial	a special event
una batalla divertida	a fun battle
mucha gente	lots of people
fuegos artificiales	fireworks

¿Qué van a tomar? — **What are you going to have?**

Quisiera	I would like
la carta	the menu
la cuenta	the bill
una mesa para	a table for
personas	people
Voy / Vamos a tomar	I / We are going to have
arroz	rice
fruta	fruit
helado	ice cream
una hamburguesa	a hamburger
un bocadillo de *jamón	a ham sandwich
queso / paella	cheese / paella
pescado frito	fried fish
tortilla española	Spanish omelette
una botella de agua	a bottle of water
limonada / postre	lemonade / dessert
un té / un café	a tea / a coffee

MIS ÚLTIMAS VACACIONES

¿Qué tal tus últimas vacaciones? — ***How was your last holiday?***

El verano pasado	*Last summer*
En julio	*In July*
Hace dos meses	*Two months ago*
fui / fuimos a	*I went / we went to*
Pasé la Nochevieja allí con	*I spent NYE there with*
Viajé en tren / en coche	*I travelled by train / by car*

¿Qué hiciste? — ***What did you do?***

El primer día / El último día	*The first day / The last day*
Por la mañana	*In the morning*
Por la tarde / Por la noche	*In the afternoon / evening*
tomé el sol	*I sunbathed*
hice windsurf	*I did windsurfing*
comí algo malo	*I ate something bad*
tuve un accidente	*I had an accident*

¿Te gustó? — ***Did you like it?***

Sí, me encantó	*Yes, I loved it*
Fue	*It was*
genial / guay / increíble	*brilliant / cool / incredible*
terrible	*terrible*
Sí, pero desafortunadamente	*Yes, but unfortunately*
perdí	*I lost*
mi bolsa / mi equipaje	*my bag / my luggage*
mi tarjeta de crédito	*my credit card*
mis llaves	*my keys*
rompí mi cámara	*I broke my camera*
dejé mi pasaporte	*I left my passport*
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OCR Sports Science Knowledge Organiser

Topic Area 3:How to design and develop a balanced nutrition plan)

3.1: Gather details about a current nutrition plan and any issues that might impact the design of future nutrition plans

Gather details - age range, allergies, cultural beliefs, food budget, cooking skill, activity, find current unbalanced nutritional information

3.1.2: Adapt the nutrition plan to suit a chosen sporting activity

Add or remove relevant nutrients
Change timings
Portion sizes
Amount of meals

Relevant nutrients - proteins, carbohydrates, vitamins and minerals, fats, water. Change timings to suit training/games/ events. Portion sizes – reduce or increase for relevant activity. Amount of meals – eat more or less often

3.2: Key factors when considering the success / impact of a nutrition plan

3.2.1: Identify the nutritional changes that can be made :

To include:
Nutrients - added protein for muscle repair, reduced fat for weight loss or increased carbohydrates for energy

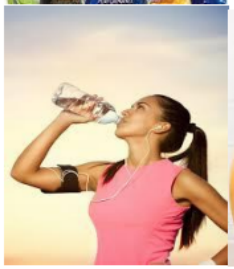
3.2: Suitability and organisation of a nutrition plan

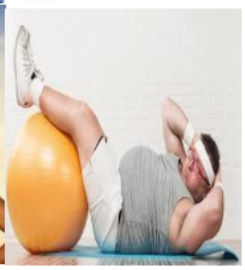
3.2.2:

Plan - portion sizes, timings of meals, amount of meals, liquid intake.

3.2.3 Review the potential success/impact of a nutrition plan:

On performance/training
Performance/training – energy levels, components of fitness
Improvements, weight/loss gain.





OCR Sports Studies Knowledge Organiser

Topic 4: How nutritional behaviours can be managed to improve sports performance)

4.1: **The effect of overeating on sports performance**

4.1.1 The effects of overeating on sports performance:

Effect on components of fitness
How overeating can be manipulated for selected sports
Increased nutrients
Performance benefits

4.2.1 The effects of undereating on sports performance:

Reduced energy levels
Reduced concentration
Weight management

4.3.1 The effects of dehydration on sports performance:

Overheating
Reduced performance level
Reduced bloated feeling
Reduced water retention

Career readiness means being prepared to succeed in the world of work — not just having a job, but being ready to grow, learn, and thrive in a career. It's about having the skills, knowledge, and attitudes that employers look for. The activities below are to help you reach career readiness.

Term 1 	Get work experience ready Not sure where to start with work experience? This course helps you cut through common myths, recognise your unique strengths, and craft a compelling CV/resumé.	Resources on unifrog Lloyds bank video 'get work experience ready' starter level	These are the tasks on unifrog and the suggested time when to do them. You are given the title of the resources so that you can find them yourself but they will appear on unifrog. You will get an email notification. The tasks are tracked. The activities include the teacher powerpoint, which gives suggestions. Sometimes, it might be good to do the activity with a friend or parent so that you can share ideas. The powerpoints are designed for a class of 30 pupils and have the teacher notes to help you. When working on your own, it will take 15 – 30 mins for the activities and longer for the thinking. Create a folder in which to save your worksheets.
	What are my employability skills You will learn about the skills which employers consider to be important	What are my employability skills ppt What are my employability skills workbook	
Term 2 	The CV tool This video will talk you through how to create your CV using unifrog	Overview: CV and Resumé tool video	
	How to find a placement A guide to get you thinking about finding a placement	A guide to work placements video	
Term 3 -5 	Once you've found a placement How do you contact employers?	WEXCV and cover letters ppt WEXCV and cover letter workbook	
	Once you've been accepted onto a placement The placements tool Part 1 The placements tool Part 2	The placements tool video How to add a placement	
Term 5 	Wellbeing on placement Name examples of reasonable adjustments an employer could make in response to mental health	Wellbeing in the workplace ppt Wellbeing in the workplace workbook	Useful websites to use https://www.johnofgauntschool.org/parents-and-carers/careers-information https://nationalcareers.service.gov.uk/ https://www.gov.uk/apply-apprenticeship https://www.ucas.com/ https://www.wiltshire.ac.uk/ https://www.bathcollege.ac.uk/
	Health and safety Learning to be safe on placement	WEX – health & safety ppt WEX – health & safety workbook	
Term 6 	ReviewYou will review your WEX experience and will your employer	Reviewing a placement ppt	

LAST PAGE