Woldgate School

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Wonder Learning Partnership

Educate | Empower | Engage | Enrich

Knowledge Book 2024-25

Name:

Form:

YEAR 8

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MUSIC

GCSE EXAMINATIONS

1 Paper

YEAR 11

SUMMER: Revision
SPRING: Performing Solo; Final Composing portfolio
AUTUMN: NEA Composing from a brief; NEA Composing; NEA Performing; Solo; NEA Performing; Ensemble; Free Choice composition; Set Work 'Release'; Mock Examination; Recap and Revision; Set Work, 'Samba Em Preludio'; Fusions

YEAR 10

SUMMER: Composing; Film project
SPRING: Music for stage and screen; Performing; Music for stage and screen; Solo Performance; Set work, 'Defying Gravity'; Ensemble Performance; Set Work, 'Star Wars'; Composing; Vocal music; Composing
AUTUMN: Composing; Set Work, 'Music for a while'; Vocal music; Set Work 'Killer Queen'; Ensemble Performance; Set Work 'Pathetique Sonata'

YEAR 9

SUMMER: Composing a 12 bar blues
SPRING: Song writing & Rap; Theory and listening, Harmony and tonality; Reggae; Solo Performance; Composing with Chords; Periods of Classical Music; Periods of Classical Music; Set Work 'Brandenburg Concerto No. 5'
AUTUMN: Theory and listening, Elements of Music; START OF GCSE; Club Dance Remix; Samba; Editing using virtual studio workstation; Harmony in song composition; Composing in Layers; Composing chord progressions, bass lines and melodies

YEAR 8

SUMMER: Melody Writing
SPRING: Minimalism; Using Music technology to create a multi-layered composition; Culture of Indian Music; Improvising around notes of an Indian Raga; Appraising music that uses Chromaticism; Appraising music from the genre of minimalism; Indian Music; Key timbres and structure of Indian music; Chromaticism; Composing and recording a 4/8 bar melody; Sharps and Flats; Editing Music using music technology

YEAR 7

SUMMER: Playing the Djembe
SPRING: Rhythm Composition; Elements of Music; Understanding Melody; Music notation; World of Rhythm; Recognising Pitch and Rhythm; Rhythm Performance; Notes on a keyboard; C Major Scale; Music of Africa; Polyrhythmic performance; Basic symbols; Bridging Unit; Pitch and duration; Music notation

Musical Futures: Ukeleles/Guitars

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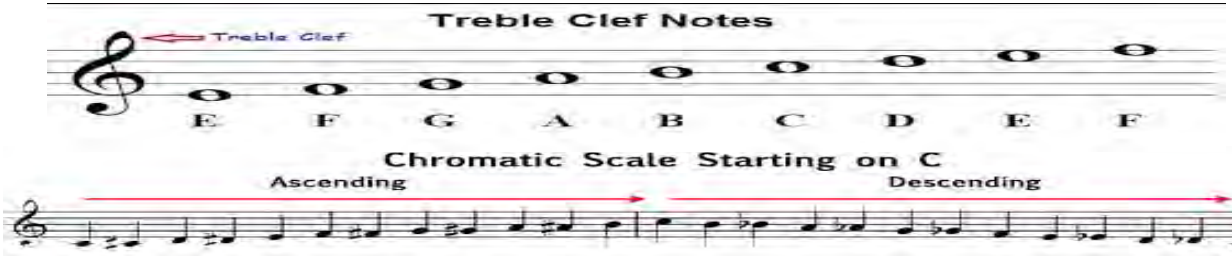
Year 8 Knowledge Organiser

Chromaticism



CHROMATIC MUSIC is music that uses notes from the chromatic scale.

A ***chromatic scale*** is made up entirely of ***semitones.*** To play it ***fluently*** you need to use the first three fingers of your right hand and keep your thumb off the black notes!

A ***semitone*** is when you move from one note to another note by step. So you move one note at a time.

A piece of music we have heard was **'Prelude A L'Apres-Midi D'un Faune'** by the French composer **Claude Debussy**. This piece is written for a ***Symphony Orchestra*** which is a large-scale orchestra featuring all four main families of instruments. ***Brass, Percussion, Strings and Woodwind.***

Remember also that much music for film uses ***Chromaticism*** as it can help to create suspense, mystery, magic and be thrilling and dramatic.

Good examples are in '**Jaws'**, **Harry Potter** films and **James Bond** Films

Sharps and Flats

♯

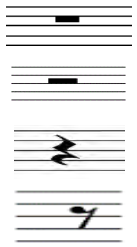
This sign means sharp, which means you play the black note directly above a note (to the right).

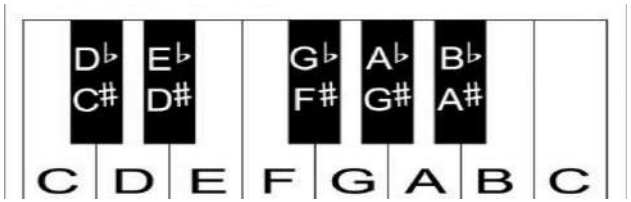
♭

This sign means flat, which means you play the black note directly below a note (to the left).

Symbol	American (British) Note Names	Beats
𝅝	Whole note (Semibreve)	4 beats
𝅗𝅥	Half note (minim)	2 beats
♩	Quarter note (crotchet)	1 beat
♪	Eighth note (quaver)	1/2 beat

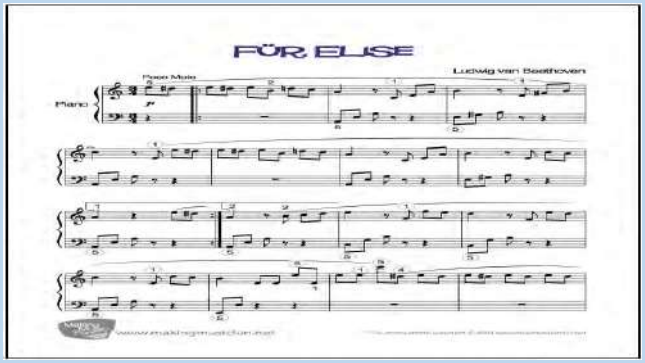
Rests





FUR ELISE

'Fur Elise' is a famous classical piece of music composed for the piano by the German composer Beethoven. The opening melody of Fur Elise uses Chromatic notes.



The piece opens by moving in semitones between the notes E and D#.

This piece must be played ***legato*** (smoothly) as opposed to ***staccato*** (spikey or detached)

Playing ***fluently*** means playing at an appropriate tempo without hesitations or stops and starts.

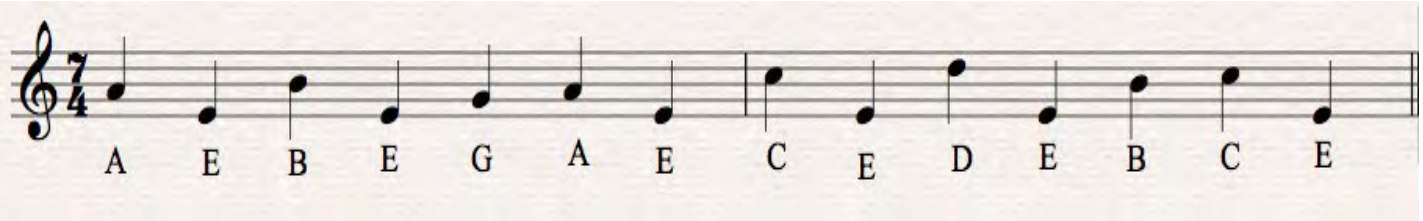
Playing ***accurately*** requires playing correct note durations and correct pitches.

There are lots of ***quavers*** in Fur Elise. These are worth half a beat each and help make the piece sound **fluent**.

MUSIC KNOWLEDGE ORGANISER

KS3 – YEAR 8
Minimalism

Tubular Bells composed by Mike Oldfield



Minimalism

Minimalism is a style of music that uses a limited number of basic ideas. These ideas are then manipulated using techniques to produce complex sounding pieces. **Minimalism** is often used in **films** to create **underscore** ('under' the action or dialogue) The music helps to set the mood or match the emotions of the characters.

Music Technology

*Most minimalist pieces use **synthetic** instruments (**synthesizers**) but even if they use **acoustic** instruments they usually rely on the use of technology to **record** them and **edit** them together. This is due to the **repetitive** nature of the music and the complexity involved from **layering** multiple **ostinati**.*

Minimalist Composers

Mike Oldfield **Steve Reich** **Terry Riley** **Phillip Glass** **John Adams**

Minimalist Techniques

REPETITION
Repeating of musical ideas

OSTINATO
A repeated pattern or loop.

LAYERING
The technique of gradually thickening the **texture** by adding different patterns in layers

DRONE
A long (**sustained**) note (usually in the lower pitch range).

METAMORPHOSIS
A technique of taking a **melody** and changing its **pitch** very gradually perhaps a note at a time.

ADDITIVE AND SUBTRACTIVE MELODY
Adding or taking away a note in an idea each time it is repeated.

M	A	D	T	S	H	I	R	T
Melody	**Articulation**	**Dynamics**	**Texture**	**Structure**	**Harmony**	**Instruments**	**Rhythm**	**Tempo**
The tune	*How notes are played*	*The volume of music*	*Layers of sound*	*How music is organised into sections*	*Chords used*	*Types of instruments/ sounds used*	*The use of different durations of notes*	*The speed of music*

MUSIC KNOWLEDGE ORGANISER

KS3 – YEAR 8
Composing in Layers

KEYWORDS

CHORDS
A chord is when two or more notes are played or sung at the same time.

TRIAD
The most common type of chord which consists of three notes.

CHORD PROGRESSION
Chords played in an order, one after the other. All music consists of chord progressions. Like the ones you have created for your composition project.

ROOT NOTE
The first/starting note of a chord

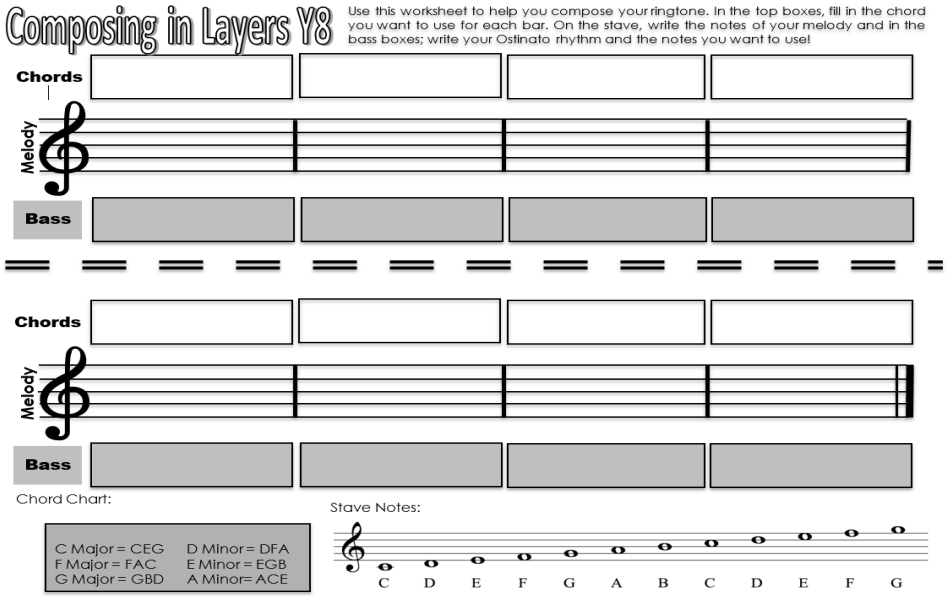
PASSING NOTE
A non-chord note that links two chord notes together in a melody.

DISSONANCE
A non-chord note that creates tension in some way

MODULATION
Moving the music to a different key
E.g. from Major to Minor

Instruments that can play chords

Accordion Piano Organ Guitar Keyboard/Synth Mallets

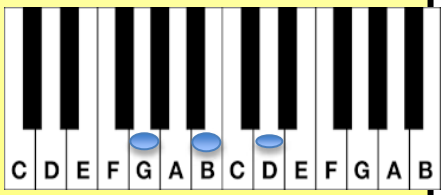


MAJOR CHORDS
These chords sound happy and pleasant ☺

MINOR CHORDS
These chords sound sad or moody ☹

7th Chords
Create interest through dissonance

Chords have this shape when played on a keyboard. There is a gap between each of the notes (e.g. G major).



M	A	D	T	S	H	I	R	T
Melody	**Articulation**	**Dynamics**	**Texture**	**Structure**	**Harmony**	**Instruments**	**Rhythm**	**Tempo**
The tune. Using chord notes, passing notes	*How notes are played. Legato, Staccato, accented >^*	*Fortissimo ff Forte f Piano p Pianissimo pp*	*Melody Chords Bass line*	*Song form 8 Bar verses/chorus*	*Chords used in the Key of C Major or A Minor*	*Types of instruments/ sounds used chosen to match their role*	*The use of different durations of notes (not just all minims) Dotted notes*	*BPM (Beats per minute The metronome*

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GCSE Edexcel B – Beliefs in Action

GCSE EXAMINATIONS

RELIGIOUS STUDIES

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YEAR 11

AUTUMN: 6. Living the Christian life — Pilgrimage; Mid/end point assessment; Prayer; Worship; Sacrements
SPRING: 7. Marriage and the Family — Worship; Worldwide Church; Marriage; Families; Divorce; Gender predudice; Mariage + Family mid/end point assessment; Family planning; Equality
SUMMER: 8. Matters of life and Death — Origins of the universe; Abortion; Life after death mid/end point assessment; Animal rights; Eschatology; Creation; The Trinity; The problem of evil and suffering; Jesus; Mid/end point assessment Christian Beliefs; 5. Christian Beliefs; Mid/end point Peace and conflict assessment; Value of human life; Euthanasia; Life after death; Revision

YEAR 10

START OF GCSE
AUTUMN: 1. Muslim Beliefs — Mid term assessment; The five roots in Shi'a Islam; The Six Beliefs; 2. Living the Muslim life — Akhirah; End point assessment Muslim beliefs; The 10 Obligatory Acts; The Five Pillars; The Five Pillars Assessment; Jihad; End point: Living the muslim life; Festivals
SPRING: 3. Crime and Punishment (Islam) — Crime; Justice; Mid/end point Crime assessment; The death penalty; The aims of punishment; 4. Peace and Conflict (Islam); Forgiveness; Pacifism; Peacemaking; Conflict; Just War
SUMMER: 9.3 Living a Secular Life — Situation ethics; Moral principles; What is ethics?; Non-religious world views; Human & animals; Utilitarianism; Humanists & morals; Humanism & religion

YEAR 9

AUTUMN: 9.1 Building Bridges — Equality; Religion and life; How is religious practice changing?; Religious leaders and racism; Chritians and the community; Bahá'í; Interfaith; Role of women; Bahá'í & equality
SPRING: 9.2 Religion and STEM — What is real?; Genesis; Scientific research; Religion and science; Science and morality; Hindu cosmology; Science and beliefs; Ultimate questions; Hinduism and LAD; Christians and LAD; Sanctity of life; Origins of life
SUMMER: 8.3 What If..? — How to live a good life; Muslims and LAD; Non religious views to LAD; Meaning of life; Diversity; Religion now; Hinduism & society; 8.2 Fairness for all; An introduction to Judaism; Religious response to the Holocuast; Lessons for today

YEAR 8

AUTUMN: 8.1 The Global Dimension — Media & religion; Art, architecture & food; Religion & modern society; Technnology; Hinduism & individuals; Religion & peace; Human rights & religion; Human righs & the Holocaust; Survivors; Genocide; Greta Thunberg; Climate change; Environmental ethics; Environment; Is the world sacred?; Human rights now
SPRING: 7.2 Wise Words (Judaism) — David Attenborough; Religions & the environment; Pollution; Value of the world; Atheism; Christingle; Design argument; God; Causation argument; Spirituality; Torah; Qur'an; 8 fold path Buddhism; Hinduism & Gods; Wisdom; Bible; Guru Granth Sahib; Pilgrimage
SUMMER: 7.3 Sacred Earth

YEAR 7

AUTUMN: 7.1 The God Idea — Polytheism; Early religion; Religion; Worldviews

Fairness for all? Human Rights KNOWLEDGE ORGANISER

KEY WORDS

Human Rights	The basic entitlements that everyone in the world should have to be able to live.
Universal Declaration of Human Rights	30 Human Rights that everyone should have. Put in place by the United Nations in 1948.
Persecution	Persistently cruel treatment due to race, political or religious beliefs.
Nuremburg Laws	Laws passed by the Nazis in 1935 that made a legal distinction between a German and a Jew. Allowed the Nazis to persecute Jews.
Holocaust	The systematic, state sponsored persecution and murder of six million Jews by the Nazis between 1933-1945.
Yad Vashem	The world's Holocaust Remembrance Centre in Jerusalem.
Righteous Among the Nations	Award given by Yad Vashem to anyone who risked their own life to help victims of the Holocaust
Genocide	The planned destruction of a group of people.
Justice	To make something right.
Refugee	A person forced to leave their country to escape persecution

WHAT ARE HUMAN RIGHTS?

Civil Rights (Right to life, freedom from torture and slavery)
Legal Rights (To be presumed innocent, right to a fair trial)
Social Rights (Healthcare, education)
Economic Rights (To own a house, have a job)
Political Rights (To vote, protest, express beliefs)
Cultural Rights (To take part in the cultural life of the community)

Why are Human Rights important to religions?

Most religions believe in the 'Golden Rule' – treat others as you would like to be treated. Religions believe that everyone is equal.

What happened to Human Rights during the Holocaust?

Soon after coming to power in 1933, the Nazis began to persecute Jewish people:

1933 – Jewish teachers, lawyers and doctors were sacked

1935 – Jews could no longer marry Germans

1938 – Kristallnacht, Jewish businesses and synagogues attacked

1942 – Jewish children could not go to school

How did the Christian world react to the Holocaust?

Evian Conference 1938 – 32 countries met but most refused to take in more Jewish refugees

Catholic Church – Signed a Concordat with Nazis – agreed to keep out of each other's way.

Individuals became rescuers – Dietrich Bonhoffer, Irena Sendler.

Why is remembrance important to Holocaust survivors?

Yad Vesham and Righteous Among Nations – Preserving documents and recording testimonies to help future generations to remember.

Elie Wiesel – Holocaust survivor 'Whoever listens to a witness, becomes a witness'

Has the world learned from the Holocaust?

More recent genocide:

Rwandan Genocide, 1994 – 500,000 members of the Tutsi minority group murdered

Srebrenica Genocide, July 1995 – 8000 Bosnian Muslim men and boys killed

Are Human Rights being met now?

Black Lives Matter, Me Too, Food Poverty, Refugees – work of Amnesty International and Christian Aid.

Unit 8.3 What if ..... Key Question: Where do we come from ? Where are we going?

KNOWLEDGE ORGANISER

KEY WORDS

Immortality of the soul	The idea that the soul lives on after the death of the body.
Resurrection	Rising from the dead, coming back to life.
Reincarnation	The belief that, after death, souls are reborn in a new body.
Purgatory	A time of cleansing for the soul after death before Judgement Day (Roman Catholic belief)
Near Death Experience	When a person comes very close to dying and has memories of a spiritual experience during the time when death was near.
Heaven	The state of eternal happiness in the presence of God, also called paradise.
Hell	The state of total separation from God.
Akhirah	Muslim belief in everlasting life after death.
Eternity	A state that comes after death and never ends.

Christian beliefs about life after death

Many Protestant Christians: They believe in immortality of the soul, and that the body will remain in the grave, but the soul will go straight to Heaven. After death Christians will face judgement before God. There is a difference in opinion about what happens to those who do not go to heaven, and some believe there is no such place as Hell.
Roman Catholic Christians: They believe in both the resurrection and immortality of the soul. They believe that the soul of a Christian who has not sinned since their last confession will go straight to heaven. The soul of a Christian who has sinned will go to Purgatory, where their souls will be cleansed. The souls who do not believe in God or have committed unforgivable sins will go to hell. After this Jesus will come back to earth to raise the dead and reunite their bodies and souls. God will make a new heaven and earth and the souls in purgatory will go to heaven.

Muslim beliefs in life after death - Akhirah

1.The angel of death takes the soul to BARZAKH a barrier to wait until the Day of Judgement.	2.Two angels visit the grave to question them about their faith.	3.The day of judgement- Angel Israfil blows a trumpet to end the world.	4.The Angel Israfil blows it again to start the resurrection.
5.The book of life will be handed them to read out - either in the right or left hand(right heaven, left hell)	6.Allah sorts the souls on the Sirat bridge – good souls=heaven, bad souls=hell.	7. The person's life will be judged. If they have lived a good life they will go to paradise.	8.If they have not lived a good life they will go to hell.

IS THERE LIFE AFTER DEATH ? (NON-RELIGIOUS VIEWS)

Yes	No
*Remembered lives	*False sense of comfort
* Paranormal events	*Social control * Humanist beliefs
*Logic * Comfort	*Lack of evidence
*Reward * Meeting loved ones	*Fraudulent accounts

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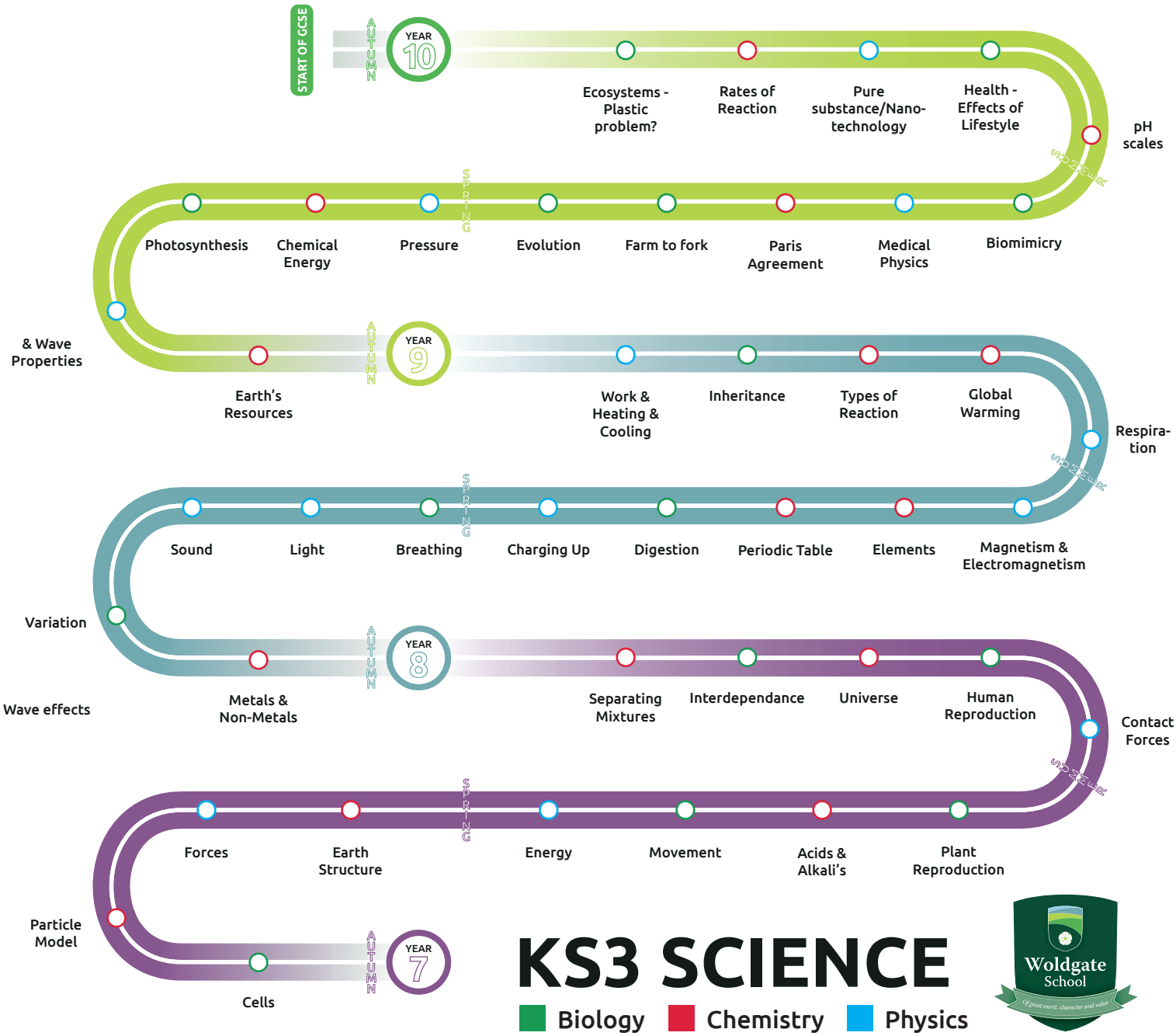

KS3 SCIENCE

Biology Chemistry Physics

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Knowledge Organiser – 8.4 Digestion

There are 7 different types of nutrients;

1. Carbohydrates; simple carbohydrates provide a quick source of energy. Complex carbohydrates release energy more slowly.
2. Lipids (fats and oils)
3. Proteins
4. Vitamins
5. Minerals
6. Water (needed in all cells and body fluids)
7. Dietary fibre

Food Tests

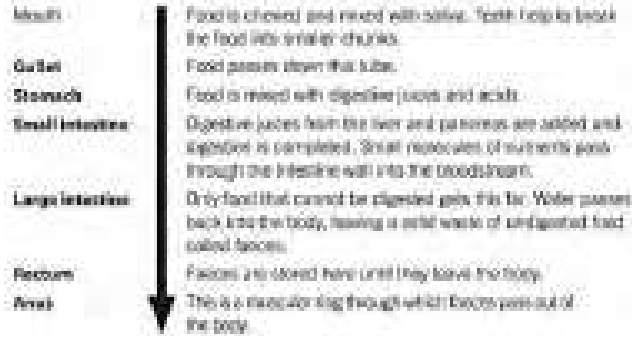
A food solution must be prepared by crushing the food and then adding a few drops of distilled water.

- **Starch** → If iodine is added to starch it will turn blue/black.
- **Sugar** → If Benedict's solution is added to a sugar and heated it will form an orange-red precipitate.
- **Lipids** → To test for fat, mix the substance with a small amount of ethanol and distilled water, if a milky white emulsion appears, then fat is present OR rub solid food into a piece of filter paper, if the paper turns translucent the food contains lipids.
- **Protein** → If Biuret solution is added to protein it will turn purple.

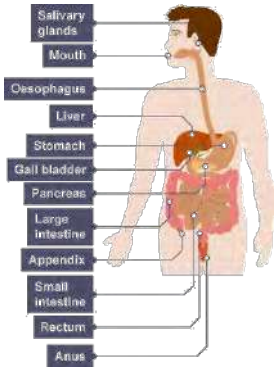
UNHEALTHY DIET

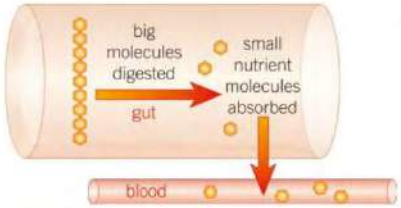
- Energy in food is measure in joules or kilojoules (1 kilojoule = 1000 joules).
- The amount of energy you need depends on your age, body size, gender and fitness.
- If energy in food is less than the energy you use, you will lose body mass (become underweight). Underweight people suffer from health problems, lack energy and are likely to have mineral deficiencies.
- Overweight people have an increased risk of heart disease, stroke, diabetes and some cancers.
- Vitamin and mineral deficiencies can damage a person's health; vitamin D deficiency can lead to weak bones (rickets).

DIGESTIVE SYSTEM

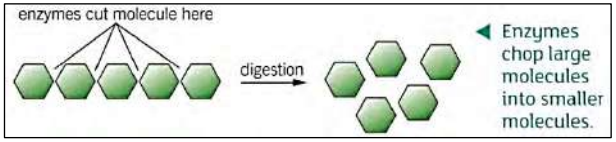


The small intestine has a thin wall, covered in villi. These structures increase the surface area for absorption. They also contain blood capillaries to carry away absorbed food molecules.

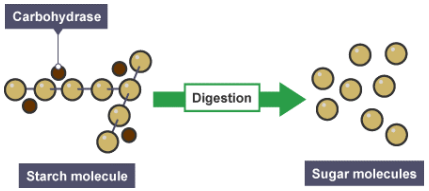




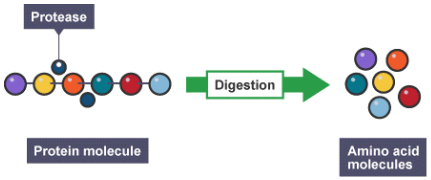
Gut bacteria make important vitamins (vitamin K) and help break down food.



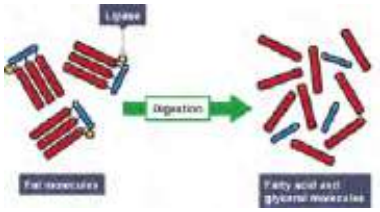
DIFFERENT TYPES OF ENZYMES; different enzymes break down different nutrients.



Carbohydrates are digested in the mouth (saliva), stomach and small intestine.



Proteins are digested in the stomach and small intestine. Acid in the stomach helps digestion and skills harmful microorganisms.



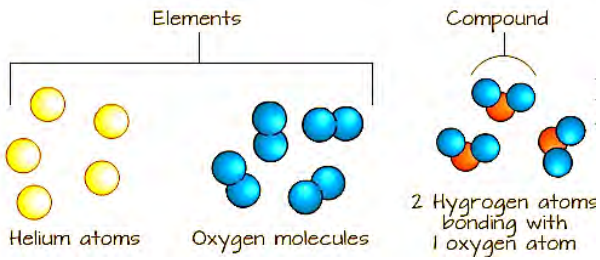
Lipids are digested in the small intestine. It is helped by bile (a substance made in the liver).

KEYWORD	DEFINITION
Balanced diet	Eating food containing the right nutrients in the correct amounts.
Bile	Substance that breaks fat into small droplets.
Carbohydrase	Enzyme that breaks down carbohydrates into sugar molecules.
Carbohydrates	Nutrients that provide the body's main source of energy. There are two types; simple (sugars) and complex (starch).
Deficiency	A lack of minerals that causes poor growth.
Dietary fibre	Parts of plants and animals that cannot be digestion. It helps the body to eliminate waste by providing bulk to keep food moving through the digestive system.
Digestion	Process in which large molecules are broken down into small molecules.
Digestive system	Group of organs that work together to break down food.
Enzymes	Substances that speed up the chemical reactions (biological catalysts) of digestion resulting in large molecules being broken into small molecules.
Food tests	Chemical test to detect the presence of particular nutrients in food.
Gut bacteria	Microorganisms that naturally live in the intestine and help food break down.
Lipase	Enzyme that breaks down lipids into fatty acids and glycerol.
Lipids	Nutrients that provide a store of energy and insulate the body. Sources are butter, milk, nuts.
Minerals	Essential nutrients needed in small amounts to keep you healthy. Sources are fruit and vegetables.
Nutrients	Essential substance that your body needs to survive, provided by food.
Obese	Extremely overweight.
Protease	Enzyme that breaks down protein into amino acids.
Proteins	Nutrient your body uses to build new tissue for growth and repair. Sources are meat, fish, eggs.
Starvation	Extreme case of not eating enough food.
Vitamins	Essential nutrients needed in small amounts to keep you healthy. Sources are fruit and vegetables.

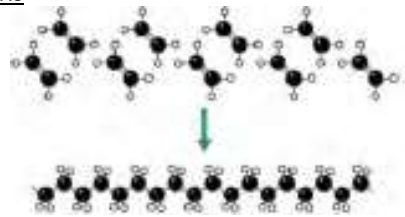
Knowledge organiser – 5.3 Elements

ATOMS, ELEMENTS, COMPOUNDS AND MOLECULES

- Every element is made up of one type of atom.
- The atoms of one element are different to the atoms of all other elements.
- One atom does not have the properties of an element (e.g. gold atoms are NOT shiny or yellow). The properties of an element are the properties of many atoms joined together (together the atoms make gold yellow and shiny).
- A compound has different properties to the elements in it.
- All compounds are molecules, but not all molecules are compounds. Hydrogen gas (H_2) is a molecule, but not a compound because it is made of only one element. Water (H_2O) can be called a molecule or a compound because it is made of hydrogen (H) and oxygen (O) atoms.



POLYMERS



- Polymers are made by chemical reactions that join lots of small molecules together to make long molecules.
- For example, a molecule of poly(ethene) is made by joining thousands of ethene molecules together.
- Polymer molecules are big and heavy. This means they melt at high temperatures.

CHEMICAL SYMBOLS

Every chemical symbol starts with a capital letter, with the second letter written in lower case.

Mg	mg	mG	MG
✓	✗	✗	✗

CHEMICAL FORMULA

- Shows the elements present in a compound.
- Shows the number of atoms of each element.
- Numbers are written to the right of their chemical symbol
- Numbers are smaller than the chemical symbol.

Example: sodium sulfate

Na_2SO_4

- *Number of elements: 3*
- *Elements: Na (sodium), S (sulfur), O (oxygen)*
- *Number of atoms: 7*

NAMING COMPOUNDS

- Compounds made up of oxygen and another element have two-word names. The second word is oxide.
  (e.g. aluminum + oxygen → aluminium oxide)
- In any compound of a metal with a non-metal, the end of the name of the non-metal becomes –ide.
  (e.g. sodium + chlorine → sodium chloride)

Number of Atoms	Prefix
1	mono-
2	di-
3	tri-

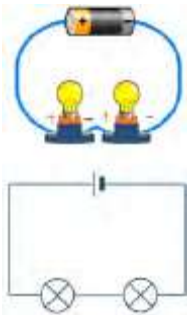
NATURAL POLYMERS	SYNTHETIC POLYMERS
Wool → fibres trap air between them. It traps heat so is used for jumpers and socks.	Poly(ethene) • Low-density (LDPE) → molecules slide over each other, making it flexible. It is strong. Used for carrier bags. • High-density (HDPE) → strong and flexible. It is harder LDPE. Surfaces can be smooth. It is used in artificial knee joints.
Rubber → long and bendy molecules so they slide over each other. Used for tyres as its flexible, waterproof and durable.	Both do not wear away or decay naturally.

KEYWORD	DEFINITION
Atom	The smallest part of an element that can exist.
Carbonate	A compound that includes carbon and oxygen atoms, as well as a metal element. There are three atoms of oxygen for every one atom of carbon.
Chemical formula	A formula that shows the elements present in a compound and their relative proportions.
Chemical symbol	A one- or two-letter code for an element that is used by scientists in all countries.
Compound	Pure substances made up of atoms of two or more elements, strongly (chemically) joined together.
Elements	Substances that all other materials are made up of, and which contain only one type of atom. An element cannot be broken down into other substances.
Hydroxide	A compound that includes hydrogen and oxygen atoms, as well as a metal element. There is one atom of oxygen for every one atom of hydrogen.
Molecules	A group of two or more (up to 1000s) atoms strongly joined together. Most non-metal elements exist either as small or giant molecules.
Natural polymers	A polymer made by plants or animals. E.g. starch, wool, cotton and rubber.
Nitrate	A compound that includes nitrogen and oxygen atoms, as well as a metal element. There are three atoms of oxygen for every one atom of nitrogen.
Polymers	A molecule made by joining up thousands of smaller molecules in a repeating pattern. Plastics are synthetic polymers, and starch is a natural polymer.
Sulfate	A compound that includes sulfur and oxygen atoms. There are four atoms of oxygen for every one atom of sulfur.
Synthetic polymers	A polymer made by people., often in a factory. E.g. poly(ethane) and poly(propene).

Knowledge organiser – 2.1 & 2.2 Potential difference and resistance

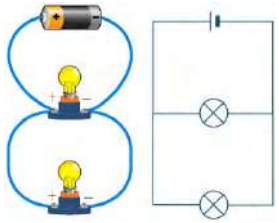
- The cell/ battery provides the push to make charges move. This push is called potential difference.
- The current is the amount of charge flowing per second.
- A battery with a larger potential difference transfers *more* energy, making bulbs brighter.
- Components have a potential difference they are designed to work at (rating).
- A voltmeter is always connected in parallel and an ammeter is connected in series.

SERIES CIRCUIT



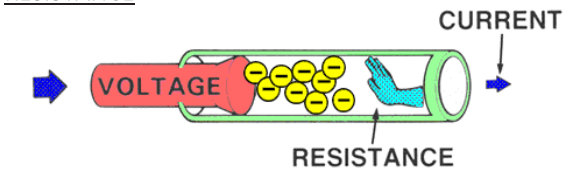
- The **current is the same** in all parts of a series circuit.
- If you add components, the current will get smaller because the resistance is bigger.
- In a series circuit, the **potential difference** (voltage) from the battery is **shared** by the components.
- If a bulb breaks, the rest will go out.

PARALLEL CIRCUIT



- The **current is shared** between the components (when it reaches the branches) and then adds again where the branches meet.
- The **potential difference** across each branch is the **same as the potential difference across the battery**.
- If one bulb breaks, the other lights will stay on.

RESISTANCE



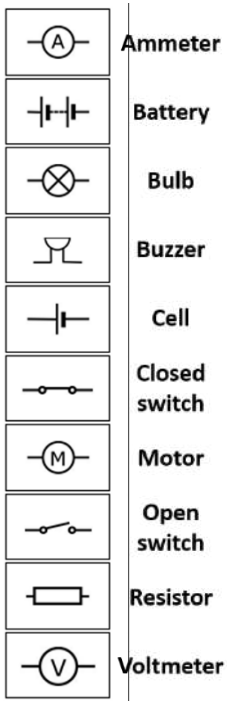
- Each component has a different resistance; this tells you how easy or difficult it is for charges (electrons) to pass through wires or components.
- Resistance is measured in ohms (Ω).
- Adding more components in series, increases the resistance, so the current is less.
- $resistance\ (\Omega) = \frac{potential\ difference\ (V)}{current\ (A)}$

Resistance in wires is caused by electrons colliding with metal atoms and transferring energy to them.

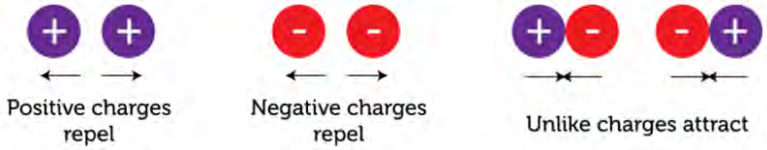
The following affects resistance;

- Length → longer wire = more resistance
- Thickness →thicker wire = less resistance
- Material of wire → good conductor = less resistance

CIRCUIT SYMBOLS



There are two types of electrical charge: **positive charge** (+) and **negative charge** (-). Charged particles (or charges) **attract or repel** each other. There is an electrostatic force between the charges.

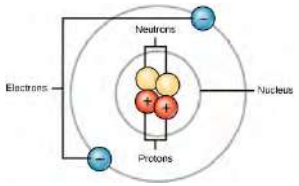


MODELLING ELECTRIC CIRCUITS – ROPE MODEL

- The rope represents the charges
- The person pulling the rope is like the battery
- A bigger potential difference across the cell is like the 'battery' person pulling harder.
- **SERIES:** the rope moves at the same speed everywhere. As more people hold the rope, the rope moves more slowly.
- **PARALLEL:** there are more loops of rope. All the loops are driven by the same 'battery' person.

Everything is made up of **atoms**. Atoms are neutral overall. They are made of three types of even smaller particles.

(1) Protons (positive charge)
(2) Electrons (negative charge)
(3) Neutrons (no charge)

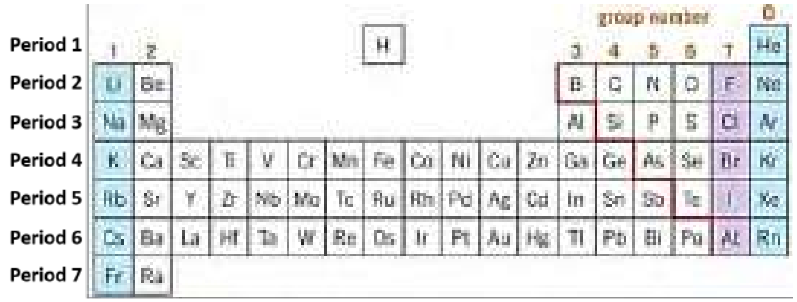


Electrons are transferred from the jumper to the balloon. The balloon is charges up. It has more electrons than protons, so it is negatively charged. The jumper is positively charged. They will attract.

KEYWORD	DEFINITION
Ammeter	A device for measuring electric current in a circuit.
Amps	Units of measurement of electric current, symbol A.
Attract	Be pulled together.
Battery	Two or more electrical cells joined together.
Cell	A chemical store of energy, which provides the push that moves charges around a circuit.
Charged up	When materials are rubbed together, electrons move from one surface to another.
Current	Flow of electric charge, usually electrons, in amperes (A).
Electric field	A region where a charged material or particle experiences a force.
Electrical conductor	A material that allows current to flow through it easily, and has a low resistance.
Electrical insulator	A material that does not allow current to flow easily, and has a high resistance.
Electron	Tiny particles that are part of atoms and carry a negative charge,
Electrostatic force	Non-contact force between two charged objects.
Negatively charged	An object that has gained electrons.
Neutral	Describes an object or particle that has no charge, or in which positive and negative charges cancel out, giving no overall charge.
Ohms	The unit of resistance, symbol Ω.
Parallel	If some components are in separate loops in an electric circuits.
Positively charged	An object that has lost electrons.
Potential difference (voltage)	The amount of energy shifted from the battery to the moving charge, or from the charge to circuit components, in volts.
Rating	The value of potential difference at which a cell or bulb operates.
Repel	Be pushed away from each other.
Resistance	A property of a component, making it difficult for charge to pass through, in ohms (Ω).
Series	If components in an electric circuit are in the same loop.
Voltmeter	A device for measuring potential difference (voltage).
Volts	Unit of measurement of potential difference (voltage), symbol V.

Knowledge organiser – 5.4 Periodic Table

THE PERIODIC TABLE



- Vertical columns = groups
- Horizontal rows = periods
- Metals = left side of the stepped line
- Non-metals = right side of the stepped line

GROUP 7 ELEMENTS (HALOGENS)

Properties of group 7 elements

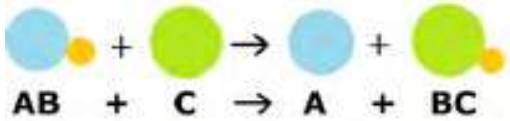
- Non-metals
- Low melting points
- Exist as simple diatomic molecules (Cl_2, Br_2…)
- Do not conduct electricity

Trends

- Melting and boiling point increases as you go down the group.
- Colours of the elements get darker as you go down the group (pale yellow (fluorine) → dark purple (iodine)).
- Reactivity decreases as you go down the group.
- State changes from gas to liquid to solid as you go down the group.

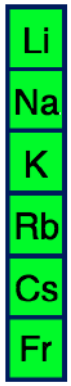
Reactions with metals (displacement reactions)

- Form salts when they react with metals.
- *A more reactive halogen will take the place of (displace) a less reactive halogen in its compounds.*



- chlorine + potassium bromide → potassium chloride + bromine
- chlorine+ potassium fluoride → NO REACTION

GROUP 1 ELEMENTS (ALKALI METALS)



Properties of group 1 elements

- Good conductors of electricity and heat
- Shiny when freshly cut
- Soft (can be cut with a knife)
- Very reactive
- Relatively low boiling/ melting points
- Low densities
- Stored under oil (away from air and water)

Trends

- Melting point decreases as you go down the group.
- Reactivity increases (gets more vigorous) as you go down the group.

Reactions with water

- Produce hydrogen gas and a metal hydroxide.
- Make alkaline solutions (universal indicator turns purple)
- Sodium + water → sodium hydroxide + hydrogen

General equations

Alkali metal + water → alkali metal hydroxide + hydrogen

GROUP 0 ELEMENTS (NOBLE GASES)

Properties of group 0 elements

- Very low melting and boiling points
- Colourless gases at room temperature
- Odourless (no smell)
- Glow brightly when high-voltage electricity passes through them (used in advertising signs)
- Unreactive (inert)
- Not flammable

Trends

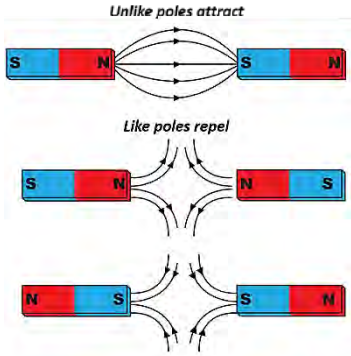
- Get *slightly* more reactive as you go down the group.
- Boiling point increases going down the group.
- Density increases going down the group.

KEYWORD	DEFINITION
Alkali metals	The elements in the left column of the Periodic Table. Also called Group 1.
Chemical properties	Features of the way a substance reacts with other substances.
Group	A column of the Periodic Table. The elements in a group have similar properties.
Halogens	The name for elements in the group that is second from the right of the Periodic Table. Also known as the Group 7 elements.
Noble gases	The name for elements in the group on the right of the Periodic Table. Also known as the Group 0 elements.
Periodic Table	A table which shows all the elements arranged in columns and rows. Elements with similar properties are grouped together.
Period	A row of the Periodic Table. There are trends in the properties of the elements across a period.
Physical properties	Features of a substance that can be observed without changing the substance itself.
Trends	A pattern in properties, such as n increase of decrease.
Unreactive	Elements that take part in few chemical reactions are unreactive.

Where do noble gases come from?

- They exist in the atmosphere, mixed with other gases.
- Fractional distillation is used to separate them from the air.
- Helium is found mixed with natural gas under the ground or under the sea (separating helium is expensive).

Knowledge organiser – 2.3 & 2.4 Magnetism and Electromagnets

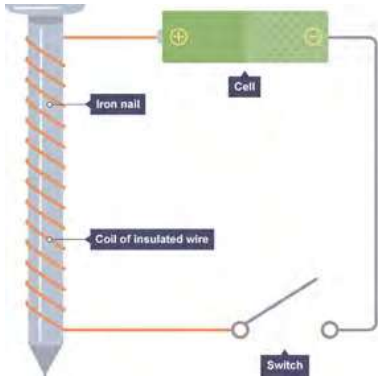


Magnetic materials are always made of metal, but not all metals are magnetic. Iron, steel, cobalt and nickel will experience a magnetic force.

The Earth's magnetic field is the same as that of a bar magnet. The field lines are most concentrated at the poles. The south pole is at the top of the planet.

MAGNETIC FIELD

- You can find the shape of a magnetic field by using a plotting compass or using iron filings.
- Magnetic field lines go from north → south.
- If the field lines are close together, this means the magnetic field is stronger.
- Permanent magnets and wires with current flowing through will have a magnetic field.



MAKING AN ELECTROMAGNET

When an electric current flows in a wire, it creates a magnetic field around the wire. This effect can be used to make an electromagnet. A simple electromagnet comprises a length of wire turned into a coil and connected to a battery or power supply.

How can you make an electromagnet stronger?

- Adding more turns to the coil
- Increasing the current flowing through the coil
- Use a magnetic material for the core (e.g. iron)

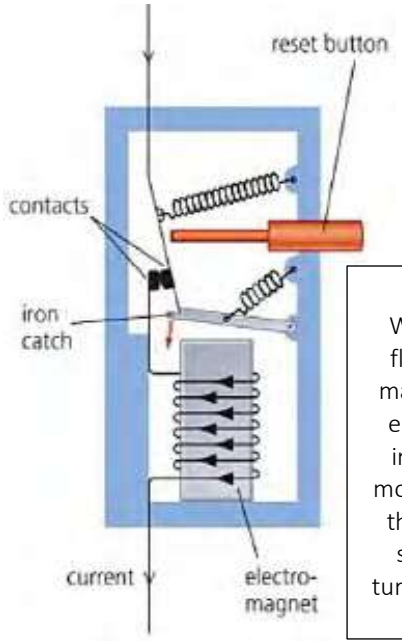
How does the strength of an electromagnet vary with distance?

The strength of a magnetic field decreases as the distance increases.

Magnetic field

The magnetic field around an electromagnet is just the same as the one around a bar magnet. It can, however, be reversed by reversing the current (turning the battery around).

KEYWORD	DEFINITION
Circuit breaker	A device that uses an electromagnet to break a circuit if the current is too big.
Core	Soft iron metal which the solenoid is wrapped around.
Electric bell	A device that uses an electromagnet to make sound using a 'make and break' circuit.
Electromagnet	A non-permanent magnet turned on and off by controlling the current through it.
Loudspeaker	A device that uses an electromagnet to make sound from a varying potential difference. Turns an electrical signal into a pressure wave of sound.
Magnet	A material with a magnetic field around it in which a magnetic material experiences a force.
Magnetic field	A region in which there is a force on a magnet or magnetic material.
Magnetic field lines	Imaginary lines that show the direction of the force on a magnetic material.
Magnetic force	Non-contact force from a magnet on a magnetic material.
Magnetic poles	The ends of a magnetic field, called north-seeking and south-seeking poles.
Magnetise	To make a material magnetic.
Permanent magnet	An object that is magnetic all of the time.
Solenoid	Wire wound into a tight coil, part of an electromagnet.



ELECTRIC BELL

The electromagnet attracts iron armature. When the armature moves, the circuit breaks (current does not flow). The coil and core are no longer magnetic and the springy metal strip returns to its original position and the bell rings once. The circuit is complete again, so the armature moves and the bell rings again.

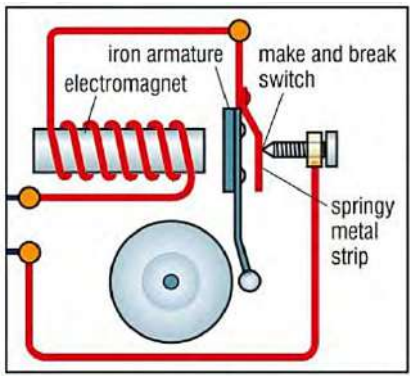
A steel core (although harder to magnetise than iron) will keep its magnetism. It will stay magnetic, when you turn the current off.

USES OF ELECTROMAGNETS

Electric bells and buzzers, loudspeakers, MRI machines, scrapyard machines, magnetic levitation (maglev trains), circuit breaker and relays.

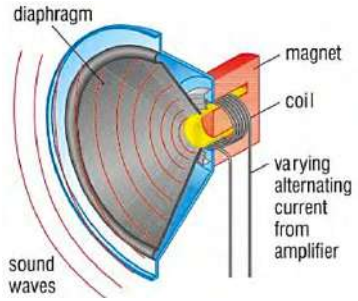
CIRCUIT BREAKER

When a large current flows in the wire, the magnetic field is strong enough to attract the iron catch. The catch moves down and breaks the circuit. The circuit stays off and can be turned on with the reset button.



LOUDSPEAKER

The electric current from your phone flows in a coil of the wire. The coil becomes an electromagnet. A magnet inside, attracts and repels the electromagnet making the cone move in and out. This makes a sound.



PERMANENT VS ELECTROMAGNET

- Electromagnet can be turned on and off.
- You can vary the strength of an electromagnet.

Knowledge organiser – Genes (10.3 & 10.4)

Natural selection

Organisms in a species show variation – this is caused by differences in their genes.

↓

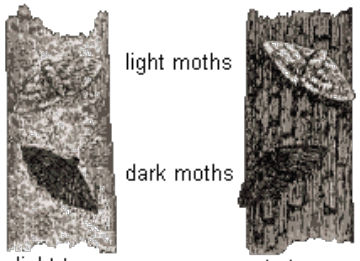
The organisms with the characteristics that are best adapted to the environment survive and reproduce. Less well adapted organisms die. This process is known as 'survival of the fittest'.

↓

Genes from successful organisms are passed to the offspring in the next generation. This means the offspring are likely to possess the characteristics that made their parents successful.

↓

This process is then repeated many times. Over a period of time this can lead to the development of a new species.



Before industrial revolution: pale moths were camouflaged against tree barks, Dark moths were easily seen.
After revolution: dark moths were camouflaged against soot-blackened trees.

EXTINCTION: If the species is not adapted to its environment, it will not survive. Fossil records show how many organisms have become extinct.

These factors can lead to extinction:

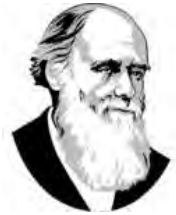
- Changes to organism's environment
- Destruction of habitat
- Outbreak of new disease
- Introduction of new predators
- Increased competition for resources.
- Human activity

Preventing extinction:

- Conservation; ensure habitats are not lost, reduce disruption to food chains and webs
- Captive breeding; create stable and healthy population of species to re-introduce back into natural habitats. But, it can be difficult to maintain genetic diversity and organisms may not be suited to return, e.g. if they cannot hunt.
- Gene banks; seed banks (plants), tissue banks (plants), cryobanks (seed/ embryo/ sperm and egg cells); pollen banks.

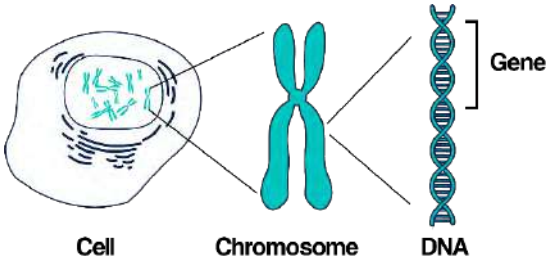
Scan me

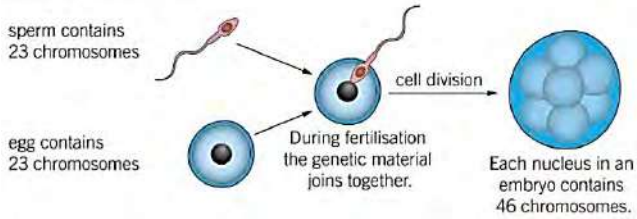
Scan me



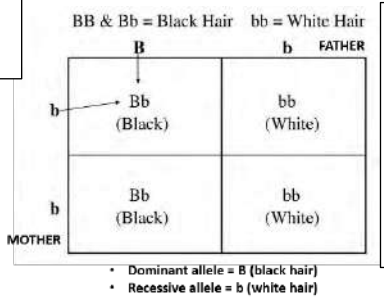
- **Darwin's theory:** organisms evolve as a result of natural selection.
- People disagreed with him because they believed his theory went against the view that God created all life on Earth.
- Evidence for his theory: fossil records, observational changes in micro-organisms and extinction.

DNA: Two strands, joined by four bases (A T C and G) forming a double helix shape. Many scientists have discovered the structure and function of DNA. Some benefits of knowing all the genes in the human body are: genetic testing, location of genes linked to inherited disease, new gene therapy treatment, new knowledge of how human evolution, personalised medicines.





Most mutations in DNA can be harmful if undetected. Mutations in the gamete may be passed to offspring. Some can be beneficial for organisms; antibiotic resistant bacteria.



PUNNETT SQUARE: allows you to predict the probability of a characteristic being expressed. It can be a ratio, a percentage or a fraction.

GENE MODIFICATION

☺ improve food production; pest resistant plants, more vitamins/minerals
☺ GM bacteria = vaccines and antibiotics
☹ unethical to interfere with genetic material
☹ unwanted risks of GM organisms; allergy
☹ new pathogens can arise during breeding

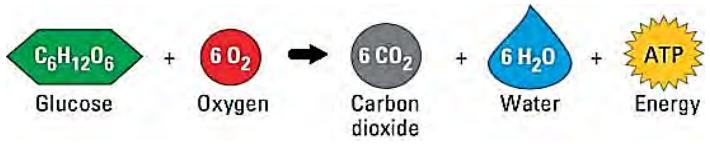
KEYWORD	DEFINITION
Alleles	Different forms of a gene.
Biodiversity	Measure of variety of different species on Earth/ ecosystem.
Captive breeding	Breeding animals in human controlled environments.
Chromosomes	Thread-like structure containing of coiled DNA.
Competition	When two or more organisms struggle for the same resource.
Conservation	Protecting a natural environment / habitat.
DNA	Molecule found in the nucleus of cells that contains genetic information.
Dominant	Allele that is always expressed if it is present.
Endangered species	A species with only small numbers of organisms left.
Evolution	Theory that living organisms descended from a species that existed in the past
Extinct	When no more individuals of a species remain anywhere in the world.
Fossil	Remains / traces of plants and animals that have turned to stone.
Genes	Section of DNA that determines inherited characteristic.
Gene banks	A store of genetic samples used for research to prevent extinction.
Genetic modification	Technique where scientists insert foreign genes into organism to change their characteristics.
Inherited characteristics	Features passed on from parents to their offspring.
Mutation	Change to DNA that causes a disease.
Natural selection	Process by which species change over time.
Peer review	Evaluation of a scientists work by another scientist.
Populations	Group of same organisms living in the same place.
Punnet square	A diagram to show the possible combinations of alleles inherited by parents.
Recessive	Allele that is expressed if two copies are present.

Knowledge organiser – 9.3 Respiration

Energy is needed for life processes such as:
- growth and repair
- movement
- control of body temperature in mammals

Muscle cells carry out lots of respiration, so they contain large amounts of mitochondria.

AEROBIC RESPIRATION



- Occurs inside the mitochondria.
- A chemical reaction that transfers energy from organic molecules in food to your cells. The waste products are carbon dioxide and water.
- NOTE: Respiration is NOT breathing.

How does glucose get into the cells?

Glucose is found in food. Once the food is digested, glucose molecules are absorbed into the bloodstream and then transported around the body in the blood. Glucose dissolves in plasma and can diffuse into cells for respiration.

How does oxygen get into the cells?

Oxygen from the air diffuses into the bloodstream. Oxygen binds to haemoglobin in the red blood cells and gets carried around the body in the blood vessels. It then diffuses into the cells.

How does carbon dioxide leave the body?

Carbon dioxide produces diffuses out of the cells and into the blood plasma. The blood transports it to the lungs, where it diffuses into the air sacs and then exhaled.

ANAEROBIC RESPIRATION

- Anaerobic respiration takes place when there is not enough oxygen for aerobic respiration.
- It happens during strenuous exercise like sprinting.
- The lactic acid produced causes painful cramps in the muscles.
- Breathing heavily after exercise, allows extra oxygen to break down the lactic acid (oxygen debt).
- Energy from anaerobic respiration is LESS than the energy from aerobic respiration.

	Aerobic	Anaerobic
Needs oxygen?	Yes	No
Needs glucose?	Yes	Yes
Product(s) formed	Carbon dioxide and water	Lactic acid

Which organism respire anaerobically?

- Animals normally respire aerobically. During vigorous exercise, they switch to anaerobic respiration.
- Plants also respire aerobically. If the oxygen supply runs out (e.g. when the soil gets waterclogged), plants will switch to aerobic respiration in their roots.
- Some microorganism respire anaerobically. This allows them to survive in environments with no or very little oxygen (e.g. gut bacteria).

FERMENTATION

The anaerobic respiration of yeast is used to make beer and wine.

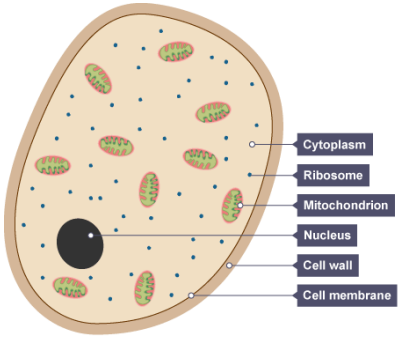
In this case, the yeast respires without oxygen and produces alcohol (ethanol). This process is known as fermentation.

Yeast converts the sugar into alcohol by anaerobic respiration:

glucose → carbon dioxide + ethanol (+ energy)

YEAST

- A microorganism used in the production of bread and many alcoholic drinks. They are made by fermentation.
- Enzymes present in yeast speed up fermentation. The enzymes work best in warm conditions



KEYWORD	DEFINITION
Aerobic respiration	Breaking down glucose with oxygen to release energy and producing carbon dioxide and water.
Anaerobic respiration	Releasing energy from the breakdown of glucose without oxygen, producing lactic acid (in animals) and carbon dioxide (plants and microorganisms).
Biotechnology	The use of biological processes or organisms to create useful products.
Fermentation	A type of anaerobic respiration in which glucose is converted to ethanol, carbon dioxide and energy.
Haemoglobin	The substance in blood that carried oxygen around the body.
Oxygen debt	Extra oxygen required after anaerobic respiration to breakdown lactic acid.
Plasma	Liquid that transports blood cells and other materials around the body.

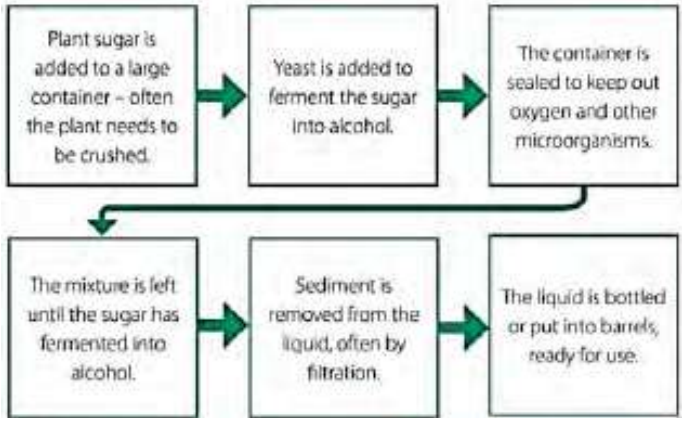
How do you make bread?

Flour, water, and yeast are mixed to make dough. The dough is then left in a warm place to rise. This is caused by the yeast respiring, changing the sugars in the flour into ethanol and carbon dioxide. The carbon dioxide gas is trapped as bubbles inside the dough, making it rise.

The dough is then baked. In the oven, the ethanol evaporates. The bubbles of gas expand, making the bread rise further.

How do you make beer and wine?

- Wine is made when yeast is used to ferment grape sugar.
- Beer is made when yeast is used to ferment sugar in malted barley.



Knowledge organiser – 6.3 & 6.4 Types of reaction and chemical energy

CHEMICAL REACTIONS

- A word equation shows the names of each substance involved in a reaction, and must not include any chemical symbols or formulae.

methane + oxygen → carbon dioxide + water

Reactant | Product

- The arrow means 'react to make'.
- In a chemical reaction, the atoms are rearranged to make new substances. The total number of atoms does NOT change. The number of atoms is conserved (no atoms are created or destroyed).

LAW OF CONSERVATION OF MASS

- Mass is conserved in chemical reactions and in physical changes.
- Mass of reactants = mass of products

Balanced equations show; the formulae of reactants and products, how atoms are arranged and the relative amounts of reactants & products.

How can we write balanced symbol equations?

RULE: Do not add or change any little numbers.

1. Write the word equation and add formulae.
   magnesium + oxygen → magnesium oxide
   $Mg + O_2 \rightarrow MgO$
   Left = 1 Mg and 2 O Right = 1 Mg and 1 O
2. Balance the amount of oxygen.
   $Mg + O_2 \rightarrow 2MgO$
   Left = 1 Mg and 2 O Right = 2 Mg and 2 O
3. Now balance the magnesium.
   $2Mg + O_2 \rightarrow 2MgO$
   Left = 2 Mg and 2 O Right = 2 Mg and 2 O

COMBUSTION; exothermic reaction.

- The substance reacts with oxygen (from the air) to produce oxides.
- *Methane + oxygen → carbon dioxide + water*
- Fossil fuels are non-renewable and will run out one day.
- Future fuels? Scientists are finding ways to use cooking oil, chicken faeces and ethanol to fuel homes and vehicles. New cars are being developed to burn hydrogen in their engines, producing only water as the product (as this does not produce carbon dioxide, it will not contribute to global warming).

DECOMPOSITON; each product of decomposition reactions is simpler than the starting substances.

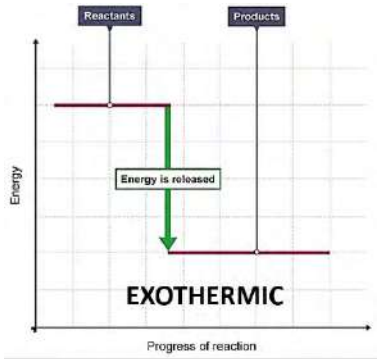
When you heat copper carbonate (green), the reaction makes copper oxide (black) and carbon dioxide (gas – turns limewater cloudy).

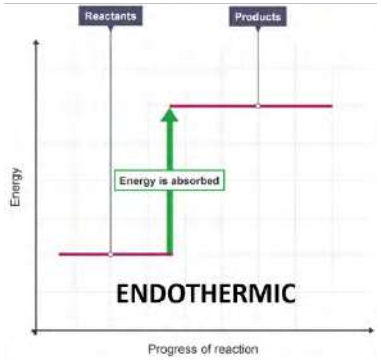
BOND ENERGIES

- Bond energy = energy needed to break a bond.
- Bond breaking = endothermic
- Bond making = exothermic

The difference between energy transferred in bond making and breaking determines whether a reaction is endothermic or exothermic. If more heat energy is released when making the bonds than was taken in, the reaction is exothermic.

Exothermic (EXit)	Endothermic (ENtrance)
Energy is *transferred to the surroundings* from substances that are reacting.	Energy is *transferred from surroundings* to substances that are reacting.
Melting and boiling, combustion, respiration neutralisation	Freezing and condensing, thermal decomposition, photosynthesis
Temperature of surroundings increase (negative energy change)	Temperature of surroundings decrease (positive energy change)
Self-heating cans, hand-warmers	Sports ice pack





KEYWORD	DEFINITION
Catalyst	Substances that speed up chemical reactions but are unchanged at the end.
Catalytic converter	A part of a car between the engine and exhaust pipe that converts harmful substances made in the engine into less harmful ones.
Chemical bonds	Force that holds atoms together in molecules.
Chemical reactions	A change in which a new substance is formed. Atoms are rearranged and joined together differently.
Combustion (burning)	A chemical reaction in which a substance reacts quickly with oxygen and gives out light and heat.
Conservation of mass	In a chemical reaction, the total mass of reactants is equal to the total mass of products. Mass is conserved in chemical reactions and physical changes.
Conserved	When the quantity of something does not change after a process takes place.
Decomposition	A chemical reaction in which a compound breaks down to form more than one product.
Endothermic reaction	Takes in energy (usually as heat) / transfers energy from surroundings.
Energy level diagrams	Diagram showing the relative energies of the reactants and products. It shows whether a reaction is endothermic or exothermic.
Exothermic reaction	Gives out energy (usually as heat or light) / transfers energy to the surroundings.
Fossil fuels	A fuel made from the remains of plants and animals that died millions of years ago. Include coal, oil and natural gas.
Fuel	A substance that stores energy in a chemical store which it can release as heat (e.g. petrol, diesel, coal…)
Non-renewable	Energy resources that have a limited supply and that cannot be replaced within a short timeframe.
Physical change	One that changes the physical properties of a substance, but no new substance is formed. It is reversible.
Products	Substances that are formed in a chemical reaction, shown on the right of the arrow in a chemical equation.
Reactants	Substances that react together, shown on the left of the arrow in a chemical equation.
Renewable	A fuel that can be easily replaced within a short timeframe.
Thermal decomposition	A chemical reaction in which a compound breaks down on heating to form more than one product.

Knowledge organiser – 3.3 & 3.4 Work and Heating and cooling

WORK AND ENERGY

- When a force causes a body to move (or deform), work is being done on the object by the force.
- The amount of work depends on the size of the force and the distance the object moves (displacement).
- Work done = energy transferred

- $\boldsymbol{work\ done\ (J) = force\ (N) x\ distance\ moved\ (m)}$

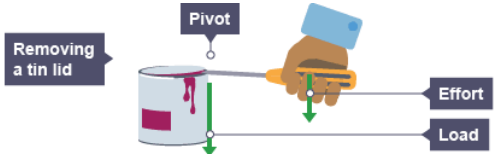
= 10 N x 2 m = 20 J

MACHINES

- Simple machines make it easier to lift, move or turn things. It reduces the force or increases the distance something moves when you apply a force.
- They give a bigger force but with a smaller movement.
- A wheel is an example of a simple machine.

LEVERS

- A lever is a simple machine that makes work easier to do.
- It is a force multiplier (something that increases the effect of a force). The force applied by the lever is bigger than the force that you apply with just your hand.
- Examples of simple levers include cutting with scissors, or lifting the lid on a tin of paint with a screwdriver.



PULLEYS

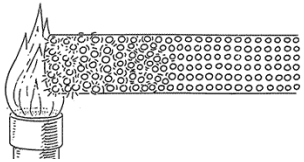
- A pulley is used to lift (or lower) heavy objects. They are wheel shaped with a groove that allows a cord to sit inside the groove.
- A single pulley changes the direction of force, making pulling down easier than lifting up (adjusting window blinds). Using two pulleys together means you need half the force to lift.

ENERGY AND TEMPERATURE (°C)

- The temperature of an object is to do with how hot or cold it is.
- When an object is heated, its particles move or vibrate faster.
- The hotter the substance, the more its particles vibrate, and therefore the higher its thermal energy.
- The energy you need to increase the temperature of a material depends on: the mass, the material it is made of and the temperature rise you want.
- Energy only transfers from a hot object to a cooler object.

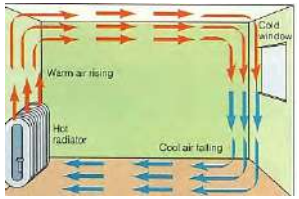
CONDUCTION

- Particles transfer energy by colliding with other particles when they vibrate.
- Wood and many non-metals are poor thermal conductors. Energy is transferred, but very slowly.
- Liquids are also poor thermal conductors. Gases do not conduct well at all because their particles are much further apart than particles in a solid.



CONVECTION

- The particles in liquids and gases can move from place to place.
- Convection happens when particles with a lot of thermal energy in a liquid or gas move, and take the place of particles with less thermal energy.
- Thermal energy is transferred from hot places to cold places by convection.



RADIATION

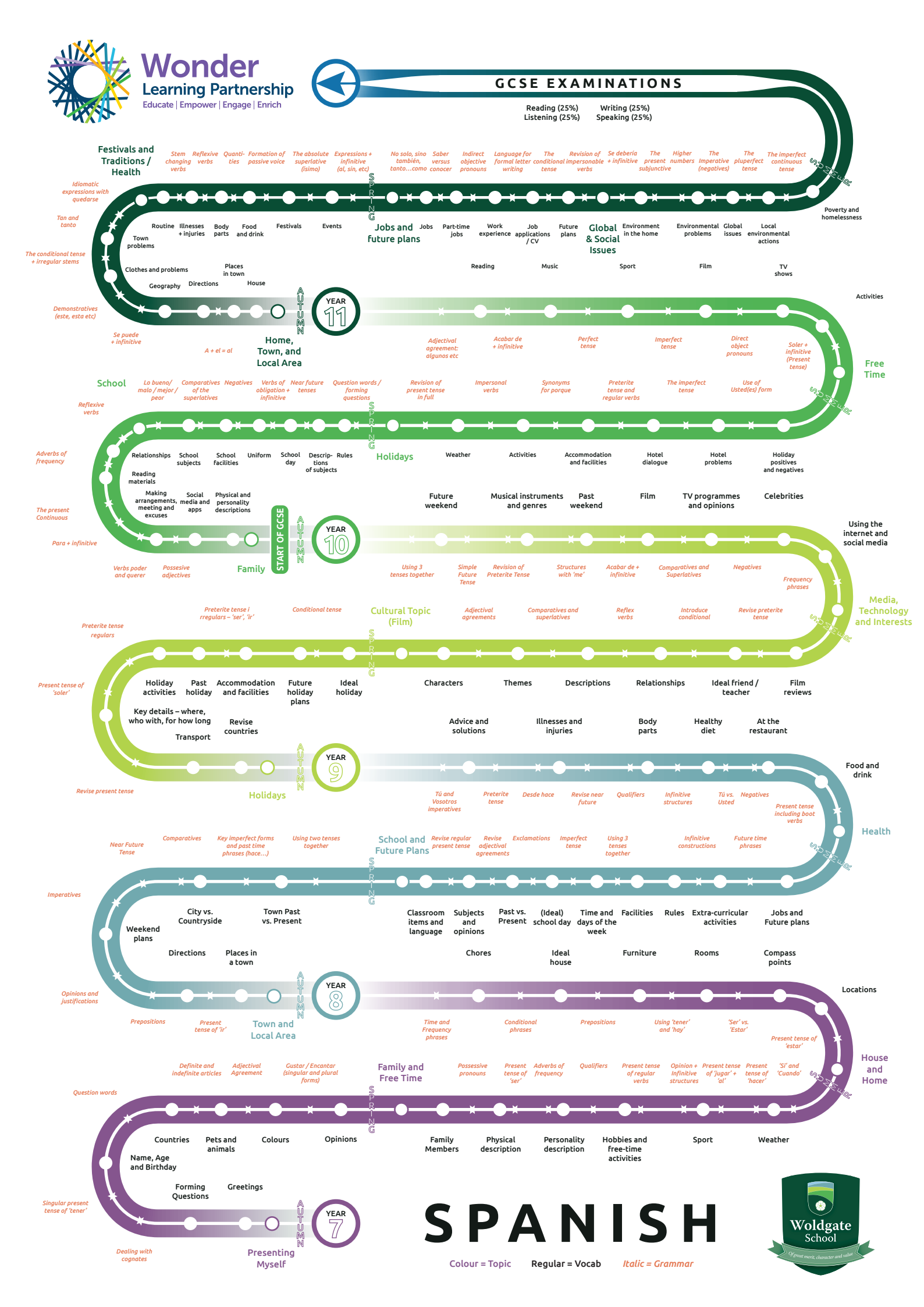
- All objects transfer energy to their surroundings by infrared radiation.
- The hotter the object, the more infrared radiation it gives off.
- No particles are involved; infrared radiation travels as a wave. Energy transfer by radiation can work when objects are not touching, even in space.

Absorbing infrared radiation

- Your skin detects infrared – this is why your skin feels hot when its sunny.
- Thermal imaging cameras absorb the radiation and produce an image. Hot areas are red in the image.
- Remote thermometers contain sensors to detect radiation and work out temperature.
- Dark colours absorb radiation and light / shiny surfaces reflect infrared.

INSULATION; you can use insulation to slow down energy transfer by conduction, convection or radiation. They do this by removing particles, trapping particles so they cannot move (cavity wall insulation) or using reflecting surfaces (foil blanket / foil packs for food).

KEYWORD	DEFINITION
Conduction	Transfer of thermal energy by the vibration of particles.
Convection	Transfer of thermal energy when particles in a heated fluid rise.
Convection current	The movement of heated fluids where hot fluid moves upwards and cold fluid moves downwards.
Deform	When an object is stretched or squashed, which required work.
Displacement	The distance an object moves from its original position.
Input force	The force you apply to a machine.
Lever	A type of machine which is a rigid bar that pivots about a point.
Output force	The force that is applied to the object moved by the machine.
Radiation	The transfer of energy as a wave.
Simple machine	A machine such as a lever or pulley system which changes the size of the force by moving a force over a bigger or smaller distance.
Temperature	A measure of the motion and energy of particles.
Thermal conductor	Material that allows heat to
Thermal energy store	The store containing energy due to the vibration or movement of particles of a substance.
Thermal insulator	Material that only allows heat to travel slowly through it.
Thermometer	Instrument used to measure temperature.
Work	The transfer of energy when a force moves an object through a distance, in joules.


Wonder
Learning Partnership
Educate | Empower | Engage | Enrich
GCSE EXAMINATIONS
Reading (25%)
Listening (25%)
Writing (25%)
Speaking (25%)
YEAR 11
SUMMER
SPRING
AUTUMN
Festivals and Traditions / Health
Stem changing verbs
Reflexive verbs
Quanti-ties
Formation of passive voice
The absolute superlative (isimo)
Expressions + infinitive (al, sin, etc)
No solo, sino también, tanto…como
Saber versus conocer
Indirect objective pronouns
Language for formal letter writing
The conditional tense
Revision of impersonable verbs
Se debería + infinitive
The present subjunctive
Higher numbers
The Imperative (negatives)
The pluperfect tense
The imperfect continuous tense
Idiomatic expressions with quedarse
Tan and tanto
The conditional tense + irregular stems
Routine
Illnesses + injuries
Body parts
Food and drink
Festivals
Events
Town problems
Clothes and problems
Places in town
Geography
Directions
House
Jobs and future plans
Jobs
Part-time jobs
Work experience
Job applications / CV
Future plans
Global & Social Issues
Environment in the home
Environmental problems
Global issues
Local environmental actions
Poverty and homelessness
Reading
Music
Sport
Film
TV shows
Activities
Demonstratives (este, esta etc)
Se puede + infinitive
A + el = al
Home, Town, and Local Area
Adjectival agreement: algunos etc
Acabar de + infinitive
Perfect tense
Imperfect tense
Direct object pronouns
Soler + infinitive (Present tense)
Free Time
YEAR 10
School
Lo bueno/ malo / mejor / peor
Comparatives of the superlatives
Negatives
Verbs of obligation + infinitive
Near future tenses
Question words / forming questions
Revision of present tense in full
Impersonal verbs
Synonyms for porque
Preterite tense and regular verbs
The imperfect tense
Use of Usted(es) form
Reflexive verbs
Adverbs of frequency
Relationships
School subjects
School facilities
Uniform
School day
Descrip-tions of subjects
Rules
Reading materials
Making arrangements, meeting and excuses
Social media and apps
Physical and personality descriptions
Holidays
Weather
Activities
Accommodation and facilities
Hotel dialogue
Hotel problems
Holiday positives and negatives
Future weekend
Musical instruments and genres
Past weekend
Film
TV programmes and opinions
Celebrities
The present Continuous
Para + infinitive
Verbs poder and querer
Possessive adjectives
Family
START OF GCSE
Using the internet and social media
YEAR 9
Using 3 tenses together
Simple Future Tense
Revision of Preterite Tense
Structures with 'me'
Acabar de + infinitive
Comparatives and Superlatives
Negatives
Frequency phrases
Media, Technology and Interests
Preterite tense i rregulars – 'ser', 'ir'
Conditional tense
Cultural Topic (Film)
Adjectival agreements
Comparatives and superlatives
Reflex verbs
Introduce conditional
Revise preterite tense
Preterite tense regulars
Present tense of 'soler'
Holiday activities
Past holiday
Accommodation and facilities
Future holiday plans
Ideal holiday
Characters
Themes
Descriptions
Relationships
Ideal friend / teacher
Film reviews
Key details – where, who with, for how long
Transport
Revise countries
Advice and solutions
Illnesses and injuries
Body parts
Healthy diet
At the restaurant
YEAR 8
Revise present tense
Holidays
Tú and Vosotros imperatives
Preterite tense
Desde hace
Revise near future
Qualifiers
Infinitive structures
Tú vs. Usted
Negatives
Present tense including boot verbs
Food and drink
Health
Near Future Tense
Comparatives
Key imperfect forms and past time phrases (hace…)
Using two tenses together
School and Future Plans
Revise regular present tense
Revise adjectival agreements
Exclamations
Imperfect tense
Using 3 tenses together
Infinitive constructions
Future time phrases
Imperatives
Weekend plans
City vs. Countryside
Town Past vs. Present
Directions
Places in a town
Classroom items and language
Subjects and opinions
Past vs. Present
(Ideal) school day
Time and days of the week
Facilities
Rules
Extra-curricular activities
Jobs and Future plans
Chores
Ideal house
Furniture
Rooms
Compass points
YEAR 7
Opinions and justifications
Prepositions
Present tense of 'ir'
Town and Local Area
Time and Frequency phrases
Conditional phrases
Prepositions
Using 'tener' and 'hay'
'Ser' vs. 'Estar'
Present tense of 'estar'
Locations
House and Home
Question words
Definite and indefinite articles
Adjectival Agreement
Gustar / Encantar (singular and plural forms)
Family and Free Time
Possessive pronouns
Present tense of 'ser'
Adverbs of frequency
Qualifiers
Present tense of regular verbs
Opinion + Infinitive structures
Present tense of 'jugar' + 'al'
Present tense of 'hacer'
'Si' and 'Cuando'
Countries
Pets and animals
Colours
Opinions
Family Members
Physical description
Personality description
Hobbies and free-time activities
Sport
Weather
Name, Age and Birthday
Forming Questions
Greetings
Singular present tense of 'tener'
Dealing with cognates
Presenting Myself
SPANISH
Colour = Topic
Regular = Vocab
Italic = Grammar
Woldgate School
Of great merit, character and value

Y8 Spanish Knowledge Organiser: Unit 2 Mi insti

En mi estuche – *In my pencil case*

En mi estuche (In my pencil case)	hay (there is/are) / tengo (I have)	un bolígrafo (a pen)	un sacapuntas (a pencil sharpener)
		un lápiz (a pencil)	unos bolígrafos (some pens)
		un pegamento (a glue stick)	unos lápices (some pencils)
		un rotulador (a felt tip)	unos rotuladores (some felt tips)
		una goma (an eraser)	una regla (a ruler)
		una pluma (a fountain pen)	unas tijeras (some scissors)
En mi mochila (In my schoolbag)	hay (there is/are) / tengo (I have)	un cuaderno (an exercise book)	un estuche (a pencil case)
		un diccionario (a dictionary)	unos cuadernos (some exercise books)
		una agenda (a planner)	una regla (a ruler)
		una calculadora (a calculator)	unas tijeras (some scissors)

Estrategia

Using Spanish spontaneously

Avoid speaking English as much as possible in class. For example, if you need a pen, ask your teacher in Spanish. It sounds impressive and helps improve your accent quickly.

There are lots of useful expressions, such as:

Necesito...	I need...
¿Cómo se dice... en español?	How do you say... in Spanish?
¡He terminado!	I have finished!
¡No entiendo!	I don't understand!

Las asignaturas - *Subjects*

The verb *estudiar*

Confidently using a regular *-ar* verb such as *estudiar* ('to study') in a range of tenses means you can become fluent much more quickly.

estudio	*I study*
estudiaba	*I used to study*
voy a estudiar	*I am going to study*
estudiaría	*I would study*

When saying what you or others study, you do not need to use the definite article.

- *Estudio ~~el~~ español, ~~las~~ ciencias y ~~la~~ educación física.*

But when giving your opinion on a subject, the definite article is needed.

- *Me gusta **el** dibujo y me encanta **la** historia.*

Me encanta (I love)		el dibujo (art)		es fácil (it's easy)
Me gusta mucho (I like a lot)		el español (Spanish)		es genial (it's great)
Me gusta (I like)		el francés (French)		es interesante (it's interesting)
		el inglés (English)		es útil (it's useful)
		el teatro (drama)		es divertido/a (it's fun)
Odio (I hate)		la educación física (PE)	porque (because)	es aburrido/a (it's boring)
No me gusta nada (I don't like at all)		la geografía (geography)		es difícil (it's difficult)
No me gusta (I don't like)		la historia (history)		es inútil (it's pointless)
		la informática (IT)		
		la música (music)		
		la tecnología (technology)		
Me encantan (I love)		los idiomas (languages)		son fáciles (it's easy (pl))
Me gustan mucho (I like a lot)		las matemáticas (maths)		son geniales (it's great (pl))
Me gustan (I like)		las ciencias (science)		son interesantes (it's interesting (pl))
				son útiles (it's useful (pl))
				son divertidos/as (it's fun (pl))
Odio (I hate)				son aburridos/as (it's boring (pl))
No me gustan nada (I don't like at all)				son difíciles (it's difficult (pl))
No me gustan (I don't like)				son inútiles (it's pointless (pl))

Varying your language

It can be tempting to have a number of familiar expressions to fall back on. While these can be useful, try to vary your language as much as possible. For example, *me encanta* can be replaced by *me interesa mucho* or even *me apasiona*. Similarly, avoid writing solely in the present tense; if you know more tenses, use them!

Remember to add an *–n* if the subject is plural: *Me aburre**n** las ciencias.*

me aburre	it bores me
me entretiene	it entertains me
me da igual	it's all the same to me
me anima	it cheers me up
me apasiona	it is a passion of mine

¡Qué rollazo! – *How dull!*

If you are giving an opinion on maths or science, you will need to use *son* instead of *es* because they are plural words in Spanish:

- *Me gustan las ciencias porque son divertidas.*

Remember that adjectives agree in number and gender with the noun they describe:

- *El inglés es aburrido.* *La historia es aburrida.* *Las ciencias son aburrid**as**.*
- *El dibujo es fácil.* *La geografía es fácil.* *Las matemáticas son fácil**es**.*

Exclamations with *¡qué…!*

¡Qué…! can be followed by an adjective or a noun to make exclamations in Spanish.

¡Qué fascinante!	How fascinating!
¡Qué frío!	How cold!
¡Qué casa!	What a house!
¡Qué ciudad!	What a city!

Note that the adjective must still agree with what it describes:

- *No me gusta nada **la** geografía.*
  *¡Qué aburrid**a**!*

Using slang expressions

Using informal Spanish can make you sound like a native speaker, but do so with care – you don't want to come across as rude!

- *¡Qué rollazo!* What a bore!
- *El profesor es **guay**.* The teacher is cool.
- ***Paso de** la informática.* I can't be bothered with ICT.
- *La música es **una pasada**.* Music is awesome.

Mi horario escolar – *My school timetable*

Telling the time

Use ***es*** to mean 'it is' when referring to one o'clock, and ***son*** when referring to all other times.

***Es la** una.*	It's one o'clock.
***Son las** dos.*	It's two o'clock.

State the hour before the minutes, and link them with ***y*** if it is 'past' the hour, or ***menos*** if it is 'to' the hour.

*Es la una **y** cuarto.*	It's quarter past one.
*Son las cuatro **menos** veinte.*	It's twenty to four.

Mi día ideal… - *My ideal day*

Estudiaría	-	I would study
Sería	-	It would be
Habría	-	There would be
Tendría	-	I would have

Mi colegio era… - *My school used to be…*

The imperfect tense

This tense is used to describe repeated actions in the past (what **used to** be done) or what someone **was** doing.

To form it, remove the last two letters of the infinitive and add the following endings.

	–ar	–er / –ir
yo	–aba	–ía
tú	–abas	–ías
él/ella	–aba	–ía
nosotros/as	–ábamos	–íamos
vosotros/as	–abais	–íais
ellos/as	–aban	–ían

*viaj**aban*** – they used to travel / they were travelling

*com**ías*** – you used to eat / you were eating

There are only three irregular verbs in the imperfect tense.

ser → *era, eras, era…*

ir → *iba, ibas, iba…*

ver → *veía, veías, veía…*

Estudiaba	-	I used to study
Mi colegio era	-	My school used to be
Había	-	There used to be
Tenía	-	It used to have

Lo que hay en mi instituto – *What there is in my school*

En mi escuela primaria En mi insti	(no) había (no) hay	(una) piscina (un) polideportivo (unas) pizarras (interactivas) (unas) aulas de informática exámenes / deberes (un) uniforme espacios verdes más tiempo libre más alumnos / profesores más oportunidades para hacer.
Mi escuela primaria Mi insti	(no) tenía (no) tiene	
El edificio Las instalaciones El día escolar Las asignaturas Las clases	(no) era(n) (no) es (no) son	(in)adecuado / colorido moderno / antiguo más corto / largo más fácil / duro mejor / peor

there was/is (not)

it had
it has
(did/doesn't)

was/were
is/are (not)

a pool
a sports centre
interactive white boards
exams / homework
a uniform
green spaces
more free time
more pupils / teachers
more opportunities to do…

The building	(in)adequate / colourful
The facilities	modern / old
The school day	shorter / longer
The subjects	easier / harder
The lessons	better / worse
(The classes)	

Las reglas - *Rules*

Aa Gramática

Se puede* and *se debe

Se puede ('one can' or 'you can') and *se debe* ('one must' or 'you must') are useful impersonal expressions that are formed by using *se* and the third-person singular form of the verb. They are followed by the infinitive:

- *Se puede estudiar teatro en mi instituto.*
  You/One can study drama in my school.
- *No se debe escuchar música en clase.*
  You/One must not listen to music in class.

You must

You must not..

Se debe...	No se debe...
ser puntual	be punctual (on time)
gritar en clase	shout in class
respetar a los profesores	respect the teachers
hacer los deberes	do your homework
correr por los pasillos	run in the corridors
ser maleducado/a con los profesores	be rude to teachers
comer en el comedor	eat in the dining hall
prestar atención en clase	pay attention in class
usar el móvil	use your mobile phone
ensuciar las instalaciones	

Y después de las clases – *And after classes*

Por la mañana (In the morning)	me lavo los dientes (I clean my teeth)	me pongo el uniforme (I put on my uniform)	voy al colegio (I go to school)
Antes del colegio (Before school)			
Entre semana (During the week)	me acuesto (I go to bed)	hago mis deberes (I do my homework)	paseo al perro (I walk the dog)
Los fines de semana (At weekends)	almuerzo (I have lunch)	juego a los videojuegos (I play videogames)	preparo mi mochila (I prepare my schoolbag)
Todos los días (Every day)	ceno (I have dinner)	leo un libro (I read a book)	veo la tele (I watch TV)
Después del colegio (After school)	descanso (I rest)	me meto en Internet (I go on the internet)	vuelvo a casa (I return home)
Por la tarde (In the afternoon/evening)			
Por la noche (At night)			

The expression *al* + infinitive translates in English as 'upon –ing'. Use it to make really impressive sentences.

- *Al salir de clase, voy al club de ajedrez.*
  Upon leaving class, I go to chess club.

***Antes de, después de* + infinitive**

Antes de ('before') and *después de* ('after') are followed by the infinitive form of the verb to mean 'before –ing' or 'after –ing'.

antes de visitar a mis abuelos
before visiting my grandparents

después de jugar al fútbol
after playing football

Mis planes – *My plans*

Gramática

The Near Future

Use the verb *ir* + *a* + infinitive to talk about what *is going* to happen.
Voy a ir a la playa. – I am going to go to the beach.

I am going to	*voy a*
You are going to	*vas a*
He/She/It is going to	*va a*
We are going to	*vamos a*
You (plural) are going to	*vais a*
They are going to	*van a*

En el futuro – *in the future*	tengo la intención de – *I intend to*	estudiar ciencias – *study science*
El año que viene – *next year*	espero – *I hope to*	ser médico en un hospital – *be a Doctor*
El curso próximo – *next school year*	quisiera – *I would like to*	trabajar en un hotel – *work in a hotel*
Pronto - *soon*	me gustaría - *I would like to*	viajar a Australia – *travel to Australia*
Dentro de poco - *shortly*	me encantaría – *I would love to*	ir a la universidad – *go to University*

Mañana (Tomorrow)	voy a (I am going to)	arreglar mi habitación (to tidy my room)	hacer mis deberes (to do my homework)	salir con mis amigos (to go out with my friends)
Pasado mañana (The day after tomorrow)	no voy a (I am not going to)	ayudar a mis padres (to help my parents)	jugar con mis hermanos (to play with my siblings)	tocar la guitarra (to play the guitar)
La semana que viene (Next week)	quiero (I want)	comer en el restaurante italiano (to eat in the Italian restaurant)	montar en bici (to ride my bike)	ir al centro comercial (to go to the shopping mall)
	me gustaría (I would like)			

Describing what hurts

Me duele (n)	el brazo *(arm)* la cabeza *(head)* el codo *(elbow)* el cuello *(neck)* el dedo *(finger)* el dedo del pie *(toe)* la espalda *(back)* el estómago *(stomach)* el hombro *(shoulder)* la mano *(hand)* la nariz *(nose)* el pie *(foot)* la pierna *(leg)* la rodilla *(knee)* los oídos *(ears)* los ojos *(eyes)* el tobillo *(ankle)*	desde hace	media hora *(half an hour)* una hora *(an hour)* dos horas *(two hours)* tres horas *(three hours)* un día *(a day)* dos días *(two days)* tres días *(three days)* una semana *(a week)* dos semanas *(two weeks)* tres semanas *(three weeks)* un mes *(a month)* dos meses *(two months)* tres meses *(three months)*

Describing symptoms / conditions and treatments

I have a bite

I have sunburn

I have a cough

I have the flu

I have sickness (vomiting)

I have a broken leg

I am tired

I am dizzy

The imperative

The imperative is used for commands or requests. To form it, use the third-person singular of a verb.

bebe *leche con miel*	drink milk with honey
toma *este jarabe*	take this syrup
*¡**come** más fruta!*	eat more fruit!

Remember that some imperatives are irregular:

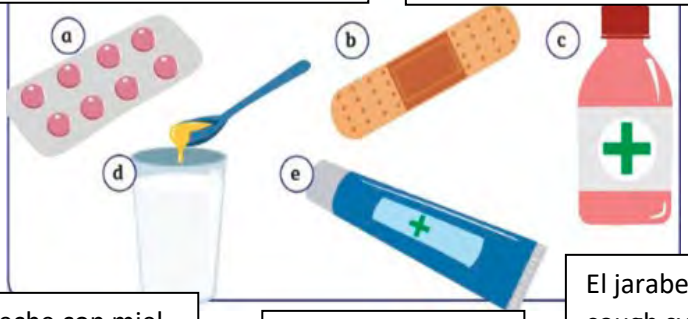
pon(te) *esta crema*	put on this cream
*¡**ten** cuidado!*	take care!

If you are talking to more than one person, you must use the plural (*vosotros*). To form this, replace the last letter *–r* of the infinitive with *–d*.

bebed, tomad, comed, escribid...

Unas pastillas – tablets / pills

Una tirita – A plaster



La leche con miel – Milk with honey

La crema - cream

El jarabe – cough syrup

Y8 Spanish Knowledge Organiser: Unit 3 Dieta y salud

Expressing opinions on food and drink

Me encanta (I love) Me gusta (I like) Prefiero (I prefer)	el arroz (rice) el café (coffee) el chocolate (chocolate) el pan (bread) el pescado (fish) el pollo asado (roast chicken) el queso (cheese) el zumo de fruta (fruit juice)	porque es (because it is)	delicioso/a (delicious) sabroso/a (tasty) sano/a (healthy)
No me gusta (I don't like) Odio (I hate)	el agua (water) la carne (meat) la ensalada (salad) la fruta (fruit) la leche (milk) la mermelada (jam) la miel (honey) la paella (paella)		asqueroso/a (disgusting) malsano/a (unhealthy)
	la comida (food)	dulce (sweet) picante (spicy)	grasienta (fatty) rica en proteínas (rich in protein)
Me encantan (I love) Me gustan (I like) Prefiero (I prefer)	los bocadillos de queso (cheese sandwiches) los calamares (squid rings) los chocolates (chocolates) los huevos (eggs) los plátanos (bananas) los tomates (tomatoes)	porque son (because they are)	deliciosos/as (delicious) sabrosos/as (tasty) sanos/as (healthy)
No me gustan (I don't like) Odio (I hate)	las fresas (strawberries) las gambas (prawns) las hamburguesas (burgers) las manzanas (apples) las naranjas (oranges) las patatas fritas (fries) las salchichas (sausages) las verduras (vegetables)		asquerosos/as (disgusting) malsanos/as (unhealthy)

Describing what you eat and drink and how often

Siempre *(always)* Todos los días *(every day)* A menudo *(often)* A veces *(sometimes)* De vez en cuando *(from time to time)* Raramente *(rarely)* Nunca *(never)*	como *(I eat)* comes *(you eat)* come *(he / she eats)* comemos *(we eat)* coméis *(you eat)* comen *(they eat)* tomo *(I have)* tomas *(you have)* toma *(he / she has)* tomamos *(we have)* tomáis *(you have)* toman *(they have)*	arroz *(rice)* carne *(meat)* chocolate *(chocolate)* ensalada *(salad)* fruta *(fruit)* pan *(bread)* marisco *(seafood)* pescado *(fish)* pollo *(chicken)* salchichas *(sausages)* queso *(cheese)* patatas fritas *(chips)* gambas *(prawns)*	sopa *(soup)* tostadas *(toast)* verdura *(vegetables)* plátanos *(bananas)* manzanas *(apples)* yogur *(yoghurt)* huevos *(eggs)*
	bebo *(I drink)* bebes *(you drink)* bebe *(he / she drinks)* bebemos *(we drink)* bebéis *(you drink)* beben *(they drink)*	agua *(water)* café *(coffee)* chocolate caliente *(hot chocolate)* leche *(milk)* té *(tea)* zumo de piña *(pineapple juice)* zumo de naranja *(orange juice)*	limonada *(lemonade)*

Describing what you had for different meals

Ayer *(Yesterday)* El finde pasado *(Last weekend)* La semana pasada *(Last week)*	para el desayuno *(for breakfast)* para el almuerzo *(for lunch)* para la cena *(for dinner)*	comí *(I ate)* comiste *(you ate)* comió *(he / she ate)* comimos *(we ate)* comisteis *(you ate)* comieron *(they ate)* tomé *(I had)* tomaste *(you had)* tomó *(he / she had)* tomamos *(we had)* tomasteis *(you had)* tomaron *(they had)*	arroz *(rice)* carne *(meat)* chocolate *(chocolate)* ensalada *(salad)* fruta *(fruit)* pan *(bread)* marisco *(seafood)* pescado *(fish)* pollo *(chicken)* salchichas *(sausages)* queso *(cheese)* patatas fritas *(chips)* gambas *(prawns)* huevos *(eggs)*	sopa *(soup)* tostadas *(toast)* verdura *(vegetables)* plátanos *(bananas)* manzanas *(apples)* yogur *(yoghurt)*
		bebí *(I drank)* bebiste *(you drank)* bebió *(he / she drank)* bebimos *(we drank)* bebisteis *(you drank)* bebieron *(they drank)*	agua *(water)* café *(coffee)* chocolate caliente *(hot chocolate)* leche *(milk)* té *(tea)* zumo de piña *(pineapple juice)* zumo de naranja *(orange juice)* limonada *(lemonade)*	

¡Cultura!

In Spain, some mealtimes are different to what you might be used to. Lunch is a lot later, around 2 or 3 pm. Some people have a snack around 5 or 6 pm, known as *la merienda*, and then dinner at 9 or 10 pm.

These regular verbs are also used to talk about what you eat and drink:

desayunar	to have breakfast
cenar	to have dinner
tomar	to have (used for food **and** drink)

These two verbs are also used. They are radical-changing verbs.

almorzar	to have lunch
merendar	to have a snack (afternoon)

- *almu**e**rzo, almu**e**rzas*, etc.
- *meri**e**ndo, meri**e**ndas*, etc.

Negative expressions

There are several ways to form a negative sentence in Spanish.

***No** me gusta el arroz.*	I **don't** like rice.
***Nunca** como ceviche.*	I **never** eat ceviche.
***No** bebo **ni** zumo **ni** leche.*	I drink **neither** juice **nor** milk.
***No** me gustan **nada** los champiñones.*	I **don't** like mushrooms **at all**.

Note that *nada* is also used to mean 'nothing' or 'anything' in a negative sentence:

***No** como **nada**.*	I eat **nothing**/I **don't** eat **anything**.

Using *tú* and *usted*

When talking to someone in Spanish, you can address them informally, using the *tú* form of the verb, or more formally, using the *usted* form. You will generally only use the *usted* form when you want to show more respect, such as when talking to an older person. To use the *usted* form, simply choose the he/she form of the verb.

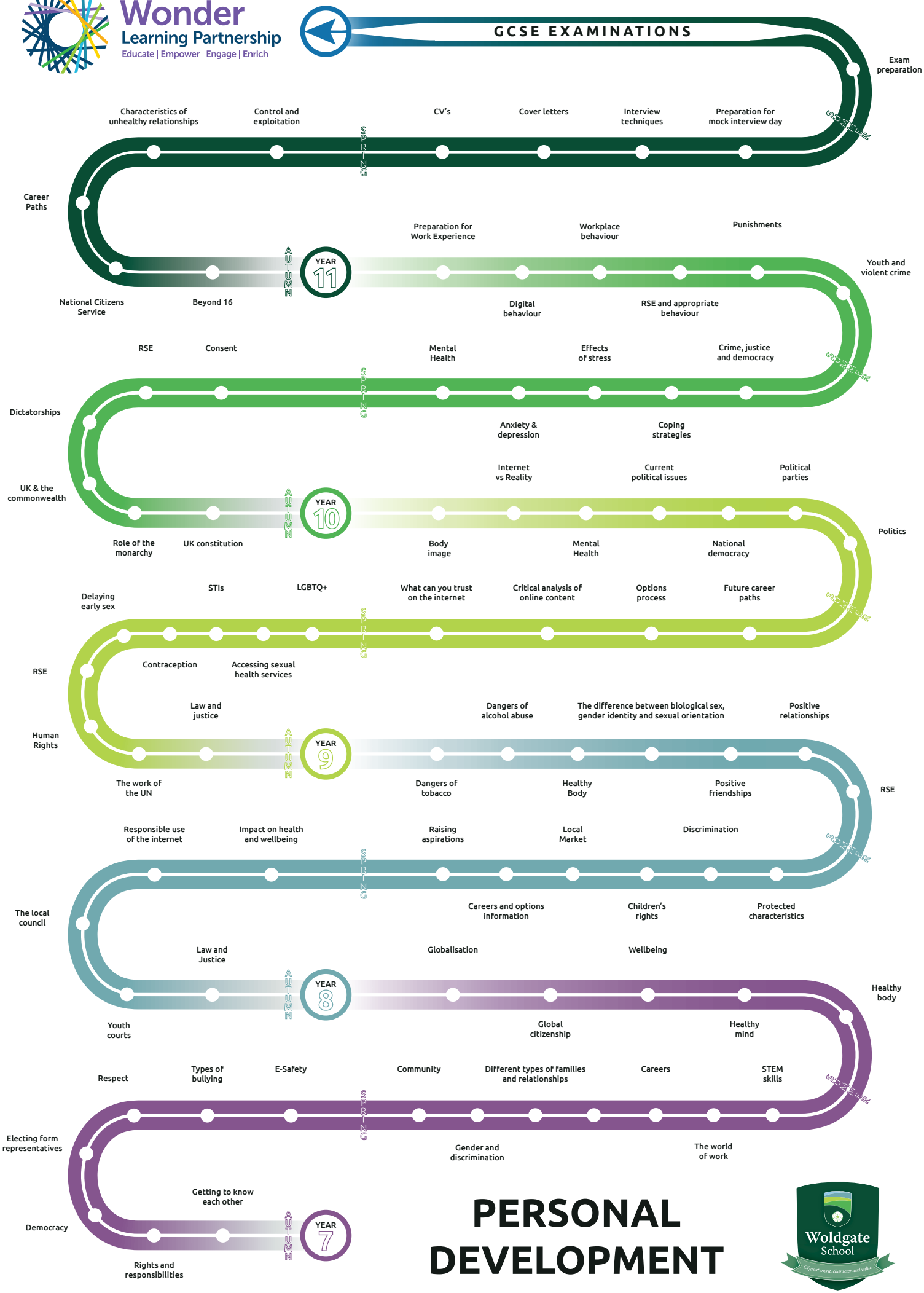
- *¿Qué desea, señor?*

Describing a healthy diet

Es *(It is)* No es *(It is not)*	ideal *(ideal)* recomendable *(recommended)* importante *(important)* aconsejable *(advisable)* esencial *(essential)* delicioso *(delicious)* sano *(healthy)* malsano *(unhealthy)*	consumir *(to consume)* tomar *(to have)* comer *(to eat)* beber *(to drink)*	mucho poco cinco porciones de	pan pescado zumo chocolate arroz queso
			mucha poca cinco porciones de	fruta carne agua leche pizza pasta
			muchos pocos cinco porciones de	caramelos refrescos productos lácteos helados chocolates cereales
Se debe *(you must)* No se debe *(you must not)* Tienes que *(you have to)* No tienes que *(you don't have to*			muchas pocas cinco porciones de	verduras bebidas salchichas hamburguesas patatas fritas

Wonder Learning Partnership
Educate | Empower | Engage | Enrich

PERSONAL DEVELOPMENT



Woldgate School
Of great merit, character and value

What are protected characteristics?

Key terms relating to protected characteristics

Protected Characteristics	Aspects of a person's identity – against the law to discriminate against because of them
Racial Discrimination	Treating a person unfavourably because of the colour of their skin
Racism	Belief that peoples from other races are inferior
Homophobia	Contempt for people who are gay, lesbian, LGBTQ+ or queer
Biphobia	Contempt for people who are bisexual
Transphobia	Contempt for trans people
Prejudice	Judging people you know nothing about based on stereotypes
Equality Act 2010	Protected 9 characteristics in law
Dead naming	Referring to the name a trans person had before transitioning

What are the 9 PORTECTED CHARACTERISTICS, protected in by law by the Equality Act 2010:

- age.
- disability.
- gender reassignment.
- marriage and civil partnership.
- pregnancy and maternity.
- race.
- religion or belief.
- sex

Possible reasons people discriminate:

- Insecurity about themselves
- Upbringing – their parents or other members of their household may hold discriminatory views.
- Negative experiences with the people their discriminate
- Fear of the unknown – lack of awareness of other religions, cultures, and races.
- Prejudice – views based on stereotypes.

Personal Development theme link:

Relationship and Sex Education

British Values link:

Tolerance and respect / Rule of Law / individual Liberty

When you enter the workforce, it is importance you are aware of possible workplace discrimination.

By law, all employers must:

make sure they do not unfairly discriminate in any aspect of work.
take steps to prevent discrimination.
do all they reasonably can to protect people from discrimination by others.
look after the wellbeing of their employees – this is called a 'duty of care'.

How can people help or where can you turn for help?

- A trusted adult in school
- Parent/ carer at home
- Friends

- Childline - https://www.childline.org.uk/
- MIND - https://www.mind.org.uk/
- NSPCC - https://www.nspcc.org.uk/

What impact can substances have on our physical and mental health?

Key vocab

Term	Meaning
Caffeine	A drug that stimulates the brain and / or nervous system
Decaffeinated	The removal of caffeine from products
Stimulant	Drugs that speed up the messaging between the brain and the body
Tobacco	a preparation of the nicotine-rich leaves of an American plant, which are cured by a process of drying and fermentation for smoking or chewing.
Nicotine	A toxic colourless or yellowish oily liquid which is the chief active constituent of tobacco.
Cravings	A desire for something in particular
E-cigarettes	An electric cigarette or vape that simulates the use of tobacco
Unit (alcohol)	A measure of the level of pure alcohol in a drink

Personal Development theme link:

Physical and mental wellbeing